Material set forth in this catalog is in accordance with information available at the time of publication. The college reserves the right to make changes in catalog information when necessary and to correct errors.

Laramie County Community College does not discriminate on the basis of race, color, national origin, sex, age, religion, political affiliation, or disability in admission or access to, or treatment or employment in, its educational programs or activities.

The Disability Support Services provides this publication in an alternative format upon request.
LARAMIE COUNTY COMMUNITY COLLEGE

Guarantee

Your Name

Laramie County Community College, as part of its commitment to quality instruction and continuous improvement, guarantees that students graduating from its career/technical programs with an Associate of Applied Science degree or certificate demonstrate competency in the skills represented in the degree or certificate. The guarantee is designed to strengthen the partnership among the college, employers and graduates of the college. Should the graduate not be able to demonstrate the skills taught by LCCC, the graduate will be offered up to 12 credit hours of retraining (or equivalent continuing education) for a degree or 9 credit hours of retraining (or equivalent continuing education) for a certificate, tuition and fees free of charge at LCCC, subject to the conditions on the back of this document.

Expiration Date: One year after graduation

For more information on LCCC’s Educational Guarantee, please see Page 27.
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<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apr 5-21</td>
<td>Registration</td>
</tr>
<tr>
<td>Aug 15-19</td>
<td>Faculty Development/College Inservice and Advising (registration closed the morning of August 17)</td>
</tr>
<tr>
<td>20</td>
<td>Fall Semester Classes Begin (Saturday)</td>
</tr>
<tr>
<td>22</td>
<td>Payment Due Date for Early Fall Registration</td>
</tr>
<tr>
<td>22</td>
<td>Fall Semester Classes Begin (Monday through Friday)</td>
</tr>
<tr>
<td>22</td>
<td>Albany County Campus Classes Begin</td>
</tr>
<tr>
<td>Sept 3-4</td>
<td>Saturday and Sunday Classes Do Not Meet This Weekend Prior to Labor Day</td>
</tr>
<tr>
<td>5</td>
<td>Labor Day (college closed)</td>
</tr>
<tr>
<td>19</td>
<td>Last Day to Withdraw Without Receiving a AW@ on Transcripts (15-week semester)</td>
</tr>
<tr>
<td>Oct 12</td>
<td>Deadline to Turn In Graduation Applications</td>
</tr>
<tr>
<td>21</td>
<td>Last Day to Withdraw (15-week semester)</td>
</tr>
<tr>
<td>Nov 15</td>
<td>First Day of Spring Registration (classes are in session)</td>
</tr>
<tr>
<td>23-27</td>
<td>Thanksgiving Holiday (college closed)</td>
</tr>
<tr>
<td>28</td>
<td>Classes Resume</td>
</tr>
<tr>
<td>Dec 3</td>
<td>Last Day of Saturday Classes</td>
</tr>
<tr>
<td>6</td>
<td>Last Day of Classes for Fall Semester</td>
</tr>
<tr>
<td>7,8,9</td>
<td>Final Exam Period</td>
</tr>
<tr>
<td>10</td>
<td>Saturday Exam Day</td>
</tr>
<tr>
<td>12</td>
<td>Grading Day</td>
</tr>
<tr>
<td>13</td>
<td>Grades Due by 12 noon—Faculty Development/Training</td>
</tr>
<tr>
<td>14</td>
<td>Faculty Work Day/Student Learning Assessment Day</td>
</tr>
<tr>
<td>Dec 23-26</td>
<td>Winter Break (college closed)</td>
</tr>
</tbody>
</table>

## Spring Semester 2012

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov 15-1</td>
<td>Registration</td>
</tr>
<tr>
<td>Dec 23-26</td>
<td>Winter Break/New Year=’s Day Holiday (college closed)</td>
</tr>
<tr>
<td>Jan 3</td>
<td>Registration Resumes</td>
</tr>
<tr>
<td>9</td>
<td>College Inservice and Advising (registration closed the morning of January 9)</td>
</tr>
<tr>
<td>10</td>
<td>Payment Due Date for Early Spring Registration</td>
</tr>
<tr>
<td>10</td>
<td>Spring Semester Classes Begin, Cheyenne Campus (Monday through Friday)</td>
</tr>
<tr>
<td>10</td>
<td>Spring Semester Classes Begin, Albany County Campus</td>
</tr>
<tr>
<td>10</td>
<td>Last Day to Register (15-week semester)</td>
</tr>
<tr>
<td>14</td>
<td>Spring Semester Classes Begin (Saturday)</td>
</tr>
<tr>
<td>16</td>
<td>Martin Luther King/Equality Day (college closed)</td>
</tr>
<tr>
<td>Feb 7</td>
<td>Last Day to Withdraw Without Receiving a AW@ on Transcript (15-week semester)</td>
</tr>
<tr>
<td>10</td>
<td>College Planning Day (No classes)</td>
</tr>
<tr>
<td>15</td>
<td>Deadline to Turn In Graduation Applications</td>
</tr>
<tr>
<td>March 10-11</td>
<td>Saturday and Sunday Classes Meet this Weekend</td>
</tr>
<tr>
<td>12-18</td>
<td>Spring Break/No Classes (college services available Monday through Thursday)</td>
</tr>
<tr>
<td>16</td>
<td>College Closed Friday</td>
</tr>
<tr>
<td>19</td>
<td>Classes Resume</td>
</tr>
<tr>
<td>21</td>
<td>Last Day to Withdraw (15-week semester)</td>
</tr>
<tr>
<td>April 3</td>
<td>First Day of Summer and Fall Registration (classes are in session)</td>
</tr>
<tr>
<td>21</td>
<td>Last Day of Saturday Classes</td>
</tr>
<tr>
<td>28</td>
<td>Saturday Exam Day</td>
</tr>
<tr>
<td>May 1</td>
<td>Last Day of Classes for Spring Semester</td>
</tr>
<tr>
<td>2,3,4</td>
<td>Final Exam Period, Cheyenne Campus and Albany County Campus</td>
</tr>
</tbody>
</table>

## Summer Semester 2012

### Five-Week Summer Session (June 4 to July 6)

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apr 3-1</td>
<td>Registration</td>
</tr>
<tr>
<td>May 25</td>
<td>Deadline to Turn in Graduation Applications</td>
</tr>
<tr>
<td>June 4</td>
<td>Payment Due Date for Early Summer Registration</td>
</tr>
<tr>
<td>4</td>
<td>Summer Semester Classes Begin (five-week session)</td>
</tr>
<tr>
<td>4</td>
<td>Last Day to Register for Five-Week Summer Session</td>
</tr>
<tr>
<td>15</td>
<td>Last Day to Withdraw from Five-Week Summer Session Without Receiving a AW@ on Transcript</td>
</tr>
<tr>
<td>19</td>
<td>Last Day to Withdraw from Five-Week Summer Session</td>
</tr>
<tr>
<td>July 4</td>
<td>Independence Day (college closed)</td>
</tr>
<tr>
<td>6</td>
<td>Last Day of Five-Week Summer Session</td>
</tr>
<tr>
<td>9</td>
<td>Grades Due by 9 a.m. for Five-Week Summer Session</td>
</tr>
<tr>
<td>13</td>
<td>Laramie Jubilee Day (no classes at the Albany County Campus only)</td>
</tr>
</tbody>
</table>

### Six-Week Summer Session (June 4 to July 13)

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apr 3-6</td>
<td>Registration</td>
</tr>
<tr>
<td>May 25</td>
<td>Deadline to Turn in Graduation Applications</td>
</tr>
<tr>
<td>June 4</td>
<td>Payment Due Date for Early Summer Registration</td>
</tr>
<tr>
<td>4</td>
<td>Summer Classes Begin (six-week session)</td>
</tr>
<tr>
<td>4</td>
<td>Last Day to Register for Six-Week Summer Session</td>
</tr>
<tr>
<td>15</td>
<td>Last Day to Withdraw from Six-Week Summer Session Without Receiving a AW@ on Transcript</td>
</tr>
<tr>
<td>22</td>
<td>Last Day to Withdraw from Six-Week Summer Session</td>
</tr>
<tr>
<td>July 4</td>
<td>Independence Day (college closed)</td>
</tr>
<tr>
<td>13</td>
<td>Laramie Jubilee Day (no classes at the Albany County Campus only)</td>
</tr>
<tr>
<td>13</td>
<td>Last Day of Six-Week Summer Session</td>
</tr>
<tr>
<td>16</td>
<td>Grades Due by 9 a.m. for Six-Week Summer Session</td>
</tr>
</tbody>
</table>

### Eight-Week Summer Session (June 4 to July 27)

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apr 3-7</td>
<td>Registration</td>
</tr>
<tr>
<td>May 25</td>
<td>Deadline to Turn in Graduation Applications</td>
</tr>
<tr>
<td>June 4</td>
<td>Payment Due Date for Early Summer Registration</td>
</tr>
<tr>
<td>4</td>
<td>Summer Classes Begin (eight-week session)</td>
</tr>
<tr>
<td>4</td>
<td>Last Day to Register for Eight-Week Summer Session</td>
</tr>
<tr>
<td>15</td>
<td>Last Day to Withdraw from Eight-Week Summer Session Without Receiving a AW@ on Transcript</td>
</tr>
<tr>
<td>28</td>
<td>Last Day to Withdraw from Eight-Week Summer Session</td>
</tr>
<tr>
<td>July 4</td>
<td>Independence Day (college closed)</td>
</tr>
<tr>
<td>13</td>
<td>Laramie Jubilee Day (no classes at the Albany County Campus only)</td>
</tr>
<tr>
<td>25</td>
<td>Cheyenne Jubilee Day (no classes at the Cheyenne Campus only)</td>
</tr>
<tr>
<td>27</td>
<td>Last Day of Eight-Week Summer Session</td>
</tr>
<tr>
<td>30</td>
<td>Grades Due by 9 a.m. for Eight-Week Summer Session</td>
</tr>
</tbody>
</table>
Laramie County Community College

Mission Statement
Laramie County Community College is a dynamic learning center that promotes social and economic prosperity for the individual and the community.

Values Statement
The people who teach, learn and work at Laramie County Community College have shaped the core values that direct our mission and achievements. We recommit to these values to guide our decisions and behaviors as we seek to meet the changing needs, aspirations and goals of the campus and the community.

Educational Excellence
We value academic excellence and an educational climate that stimulates intellectual, professional and personal development. We commit to offering a wide variety of educational programs, services and opportunities. We embrace instructional and technological innovation and creativity to maintain a vital and growing educational environment. We promote high aspirations and achievement for all members of the college community as they strive for excellence.

Integrity
We expect and consistently stand for integrity, ethical behavior and personal responsibility. We actively embrace and courageously fulfill our mission statement through honest, fair and caring professional relationships.

Respect
We advocate and respect diverse viewpoints, perspectives, cultures and values. We adhere to the doctrines of academic freedom and free speech. We protect the exploration of ideas and encourage inquiry by students, faculty and staff. We believe in open, honest interpersonal interactions. We affirm the human element in education, acknowledging that mentoring motivates, supports and encourages excellence.

Community
We listen to both individual and corporate members of the community and value their input and support in shaping programs and services. Our success is measured by the quality and timeliness of our response and service to the community.

Vision Statement
Laramie County Community College is a comprehensive community college that offers educational opportunities for citizens of its service area by:
• providing technical/vocational education
• preparing students for four-year colleges
• providing developmental and basic skills education
• providing continuing education and community service programs
• providing a skilled labor force
• making the educational opportunities affordable
• providing academic support services for its students
• providing a variety of learning environments

and enhances access to and utilization of advanced technologies for citizens of its service area by:
• providing an alternative to the traditional classroom
• providing state-of-the-art training

Campus Civility Statement
LCCC is committed to learning. We believe that academic inquiry, personal integrity, and respect for self and others are the foundation of the educational experience. Therefore, all members of the campus community will strive to create a campus environment of mutual respect and high ethical standards. LCCC students, faculty, and staff have the right to experience, and the responsibility to maintain, a safe educational community that is civil in all aspects of human relations.
Board of Trustees

Formulation of the policies for Laramie County Community College is entrusted, by Wyoming law, to a seven-member Board of Trustees. The trustees are elected for terms of four years. The board meets on the third Wednesday of each month for its regular business meeting, with study sessions on the first Wednesday of each month. The expiration year for the term of office of each trustee is shown in parentheses. The Board of Trustees maintains membership in the Association of Community College Trustees and the American Association of Community Colleges.

Brenda Lyttle, Chair (2014)
Greg Thomas, Vice Chair (2012)
Carol Merrell, Secretary (2014)
Edwin Mosher, Treasurer (2012)
William Dubois (2012)
John R. Kaiser (2012)
Kevin Kilty (2014)

Interim President of the College

Marlene Tignor

Laramie County Community College Foundation

Mission

The Foundation was established in 1968 to develop and sustain support for Laramie County Community College through solicitation, management, and recognition of donations. The Foundation is dedicated to providing services and assistance to students, faculty, staff and the community, thereby enhancing a sense of tradition and pride that will assist in advancing the college.

2011 LCCC Foundation Board of Directors

Jody Levin, President
Ron Rabou, Vice President
Scott Walker, Secretary
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Tiffany Mores, Bookkeeper
Jawnie Sanders, Administrative Assistant
Susan Scratchley, Foundation/Albany County Campus Development Officer
Lisa Trimble, Cultural Series Event Facilitator

Inquiries concerning the Foundation should be directed to:
LCCC Foundation
1400 East College Drive
Cheyenne, Wyoming 82007
307.778.1285
www.lcccfoundation.edu
General Information

The College

Laramie County Community College was created by the voters on May 21, 1968, to help fill the need for academic, career and community service/continuing education in the county. Courses offered reflect the skills and knowledge required to function in a world that makes ever increasing demands upon the individual. The college is dedicated to helping individuals prepare for careers, enjoy community life and enrich leisure time by providing continuing educational experiences.

To achieve these ends, Laramie County Community College provides programs in the following instructional areas: academic, preparing students for transfer to four-year institutions; career education, training students in programs up to two years in length to enter the world of work; and community education, consisting of noncredit courses and offering courses of general information, cultural opportunities, and professional and personal growth.

Laramie County Community College strives to be an educational institution for all people—whether they want to gain personal enrichment through a program of general education, to obtain a certificate of high school equivalency, or to begin a college career leading to a bachelor’s or higher degree.

Accreditation/Professional Associations

Laramie County Community College and its programs are accredited or approved by the following organizations:

- The Higher Learning Commission of the North Central Association of Colleges and Schools, 30 North LaSalle Street, Suite 2400, Chicago, IL 60602, 800.621.7440.
- American Bar Association (ABA), Standing Committee on Legal Assistants, 750 North Lake Shore Drive, Chicago, IL 60611, 312.988.5677.
- American Dental Association Commission on Dental Accreditation, 211 East Chicago Avenue, Chicago, IL 60611-2678, 312.440.4653.
- Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 North Wacker Drive, Suite 2850, Chicago, IL 60606-3182, 312.704.5300.
- National Institute for Automotive Service Excellence (ASE), 13505 Dulles Technology Drive, Herndon, VA 22071-3415, 703.742.3800.
- National League for Nursing Accrediting Commission (NLNAC), 3343 Peachtree Road NE, Suite 500, Atlanta, GA 30326, 404.975.5000.
- Wyoming State Board of Nursing, 1810 Pioneer Avenue, Cheyenne, WY 82001, 307.777.7601.
- Commission on Accreditation of Allied Health Education Programs (CAAHEP), 1361 Park Street, Clearwater, FL 33756, 727.210.2350 (Diagnostic Medical Sonography, Emergency Medical Services–Paramedics, and Surgical Technology programs).
- Commission on Accreditation in Physical Therapy Education (CAPTE), 111 North Fairfax Street, Alexandria, VA 22314-1488, 703.706.3245.
- Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP), 1361 Park Street, Clearwater, FL 33756, 727.210.2350 (Emergency Medical Services–Paramedic program).
- North Central Association of Colleges and Schools.
- Council of North Central Community and Junior Colleges.
- American Association of Community Colleges.
- National Association for Student Personnel Administrators.
- Wyoming Association of Colleges and University Housing Officers.
- National Academic Advising Association.
- National Association of Colleges and Employers.
- National Association of Student Financial Aid Administrators.
- Rocky Mountain Association of Student Financial Aid Administrators.
- Wyoming Association of Student Financial Aid Administrators.

College Facilities and Resources

Cheyenne Campus

1400 East College Drive, Cheyenne, WY 82007
307.778.5222 or 800.522.2993 (toll free)

Laramie County Community College occupies facilities situated on a 271-acre campus. The site is immediately southeast of Cheyenne. Primary access routes to the college are College Drive, connecting to Interstate 25 west of LCCC, and South College Drive, connecting to Interstate 80 northeast of LCCC. Numerous off-campus facilities are also utilized.

The main campus consists of 21 buildings. Built with financing provided by bond issues approved in 1971, 1979, 1989, and 2006, along with state and federal mineral funds and supplemented by revenue bonds issued through the LCCC Foundation, new facilities have allowed the college to expand many programs and activities.

Albany County Campus

1125 Boulder Drive, Laramie, Wyoming
307.721.5138 or 800.522.2993, Ext. 4250 (toll free)

Laramie County Community College (ACC) of LCCC is a full-service campus – extending the lifelong educational opportunities of a community college to the citizens of Albany County. Numerous degree programs, both career/technical and academic/transfer, are available through the ACC. In addition to degree programs, the ACC offers a wide variety of credit courses to help students prepare for college, complete general education requirements, or enrich their personal lives.

The Albany County Campus provides its students with support services similar to those available to the Cheyenne campus students. Counselling services, academic advising, career guidance, adult re-entry assistance, and financial aid information are available. On-site GED and placement testing are provided. Student groups are active and plan several activities each semester for students and their families.
The Teaching and Learning Center (TLC) is the hub for the ACC Library, the Student Success Center (SSC), and an open computer lab. The TLC welcomes students and the general public, Monday through Saturday, and provides extended hours at the end of each semester to support student study and research.

The ACC library services are the same as those on the main campus and promote information literacy by offering library research instruction, individualized assistance with online databases and other Internet applications, and interlibrary loan. The ACC Library is staffed by a full-time librarian and a team of student employees. The ACC Library is a popular gathering place for students, offering a comfortable space for study and research with easy access to print and online library collections, daily newspapers, popular magazines, the student computer lab, and tutoring services from the Student Success Center. The ACC Library now has a rotating McNaughton collection of bestselling fiction and nonfiction books. These popular leased books offer variety and interest without requiring permanent shelf space in the library.

The student computer lab in the Teaching and Learning Center is open and staffed during the same hours as the ACC Library. In addition to 29 computer workstations, a scanner and printer are available. Two more workstations are located in the library study area. The Student Success Center (SSC) provides LCCC credit students with tutors and resources in the areas of English, math, business, languages, and the sciences. Tutoring is provided on either a one-to-one or small group basis. The Student Services area routinely recommends ADA students to the SSC to take advantage of the specialized computers and software, as well as individual tutoring. The SSC also provides day and evening instruction in Adult Basic Education (ABE), General Educational Development (GED), Adult Secondary Education (ASE), and English for Speakers of Other Languages (ESOL), literacy, and functional academic skills. Instruction in basic job skills such as résumé writing, interviewing, interpersonal skills, and basic computer literacy is available for all students. An employment kiosk is provided for students actively looking for employment within the community. Students may enroll in Student Success Center classes at any time during the school year.

F. E. Warren Air Force Base Outreach Center
Building 841
307.773.2113

LCCC is committed to serving the residents of the entire community. Classes are offered at F. E. Warren Air Force Base and are scheduled especially for military personnel. However, civilians of the Warren/Laramie County community may enroll.

Classes are conducted on an accelerated basis. Four eight-week terms are scheduled each academic year with class schedules at Lunch, Twilights, and evening hours. Classes are also scheduled for weekends and for those personnel who are assigned to rotating work schedules.

A full-time LCCC representative works in the F. E. Warren Air Force Base Education Office.

Eastern Laramie County Outreach Center
607 Elm Street, P. O. Box 580, Pine Bluffs, WY
307.245.3595

LCCC is committed to serving Eastern Laramie County residents with classes and programs. Course offerings vary from semester to semester. Offerings include credit, continuing education, personal and professional improvement, life enrichment courses, and ESOL, ABE, and GED preparation.

Residence Halls
1340 East College Drive, Cheyenne, WY 82007
307.637.2498

Living on campus can be one of the most rewarding and enjoyable aspects of a student’s college experience. It provides the best opportunity to get to know the campus, get involved in campus events and organizations, meet new people, and make new friends. There are many fun and rewarding activities occurring in the residence halls, plus the convenience of being close to classes and other campus resources.

LCCC’s east and north residence halls, which opened in fall 2006, offer four-person suites, two- and four-person private bedroom suites; and one-person, private, super-single rooms. These halls have an overall capacity of 264 students.

The four-person suites in the east and north halls are very similar to the west residence hall, with two bedrooms in each suite as well as a shared common area. Each bedroom houses two students and includes a private bathroom. Private bedroom suites are available in two-person and four-person units. Each student has a private bedroom with closet, desk, and dresser, and shares a bathroom with one suitemate. Private bedroom suites also have a shared common area with a living room and kitchenette.

A few private, super-single rooms are available in the east and north residence halls. These rooms have all the amenities of the larger suites, including single bed, desk, dresser, and seating area, as well as a kitchenette area and private bathroom. All rooms in these halls are air conditioned.

Direct Internet access for each student, cable TV access, and a telephone line are included in all residence hall bedrooms.

The commons serving students living on campus is a gathering place for residents of all halls to enjoy. The commons offers a computer lab, TV lounge, study areas, fireplace, lounge, laundry facilities, serving room, classroom, vending machines, and mail delivery services. The LCCC Residential Living and Learning Office is located in the community center, serving all halls.

Students may elect to pay their residence hall fees in full or through LCCC’s Automatic Payment Plan. LCCC has contracted with Nelnet Business Solutions (NBS) to provide an automatic payment plan that is an easy, convenient, and interest-free alternative for payment of tuition and fees. A student must pay a nonrefundable $25 processing fee to NBS and agree to automated withdrawal payments by NBS to participate in the plan. The automated withdrawal payments can be from checking or savings accounts or major credit card accounts. Plan details are available on LCCC’s website under payment options for your student account or at the Student Records, Financial Aid, or Accounting Offices.

Ludden Library
307.778.1205 (circulation desk); 307.778.1206 (information desk); libref@lccc.wy.edu (e-mail)

The Ludden Library integrates print and electronic resources, technology, services, and a knowledgeable staff to support the college’s curricular and instructional programs. With a physical collection of almost 60,000 items and electronic subscriptions to over 100 research databases, the library strives to meet the research needs of LCCC students.

In addition to providing both on- and off-campus access to resources, the library also provides research and information literacy assistance. Students are encouraged to contact the library with any questions regarding how to access materials remotely, how to find quality information resources, and how to correctly cite and use those resources in their assignments.
Physical Education Complex
Physical Education Building
307.778.1315
The college has an outstanding physical education facility that is fully equipped to provide a variety of physical education courses and recreational opportunities for LCCC students and the residents of Laramie County. This facility includes a spacious multipurpose room, which features a climbing wall, a two-lane track (one-tenth mile per lap) and can accommodate tennis, volleyball, indoor soccer, archery, gymnastics, and other sports.

The physical education complex also includes a mat room for the martial arts, Jazzercise, and stretching; three racquetball courts; a fully equipped weight room, a 25-meter swimming pool; a basketball gymnasium; a training room; and an aerobic center, which includes aerobic machines, fitness testing, and a dance floor.

Albany County Campus students have access to the recreational center located in Laramie. For more information, call 307.721.5138.

Student Computer Center
Fine Arts Building, Room 171
307.778.HELP (4357)
The Student Computer Center is equipped with 40 Pentium 3 0.6 Ghz computers and 19-inch flat panel monitors for student use. A color laser printer and two black-and-white laser printers also are available to students free of charge. The state-of-the-art equipment provides students with the technology they need to prepare for the future. The center is open seven days a week, and the hours are posted outside the main door.

COMPUTER COPYRIGHT
LCCC owns the computer software used in all college-wide computer activities. Unauthorized copying of this software violates LCCC policy as well as state and federal copyright laws.

Unauthorized access to college accounts, passwords, or other computer resources is illegal.

Not only may violators face college disciplinary action, including possible expulsion, but they may also be subject to misdemeanor or felony punishment, which includes imprisonment.

Multimedia Classrooms
LCCC has created a number of high tech classrooms containing SMARTboard interactive white boards, 2000-lumen projectors, DVD, VCR, sound system, wireless lapel microphones, cassette recorder/player, document projector, computer, laptop station, and a remote wireless touch screen control panel. From this portable panel, the instructor can control all technology, including the lighting, from any point in the room, creating a more flexible learning environment.

Disability Support Services
Education and Enrichment Center, Rooms 222-223
The Disability Support Services (DSS) provides confidential assistance for students with documented disabilities. In the DSS, students will find services and adaptive equipment to assist with mobility, sensory, and perceptual concerns.

Admission
Laramie County Community College will admit any individual, public, private or home school graduate, GED recipient, or anyone who in the judgment of the college can benefit from one of the college programs or courses.

Laramie County Community College does not discriminate on the basis of race, color, national origin, sex, age, religion, political affiliation, or disability in admission or access to, or treatment or employment in, its educational programs or activities.

Inquiries concerning Title VI, Title VII, Title IX, Section 504, and the Americans with Disabilities Act may be referred to the LCCC Human Rights Officer: Peggie Kresl-Hotz, Director of Human Resources, Room 148, Administration Building, 307.778.1258. Inquiries also may be made to the Office for Civil Rights, U.S. Department of Education, 1244 Speer Boulevard, Suite 310, Denver, CO 80204, or Equal Employment Opportunity Commission, 303 East 17th Avenue, Suite 510, Denver, CO 80203.

Admissions Categories
A. Applicants graduating from accredited secondary schools will be automatically admitted if this is their first time in college.
B. Applicants graduating from nonaccredited secondary schools will be admitted after confirmation that the school is duly licensed by a state to operate and issue high school diplomas. Students who have graduated from nonaccredited high schools will have their credentials evaluated on an individual basis by the Admissions Office.
C. Applicants who hold General Educational Development (GED) certificates or a passing score for the state of Wyoming on the General Educational Development test given by the USAFI (United States Armed Forces Institute) will be automatically admitted.
D. Applicants under age 18 who are not high school graduates may be provided special admission for one semester at a time when it is judged that the person can benefit from the credit course(s).
E. Applicants over age 18 who are not high school graduates may be provided admission when it is judged that the person can benefit from the credit course(s). Final approval rests with the Vice President of Student Services.
F. Applicants who are high school students may concurrently enroll in college courses. Admission is granted for one semester at a time.
G. Applicants may be admitted to take courses for personal interest or job training without proof of high school graduation. Students who want to change to degree-seeking status must meet the requirements of one of the other admissions categories.

Applicants who fail to provide the Admissions Office with official transcripts of their high school records, GED certificates, or transcripts from colleges previously attended may be prevented from registering for subsequent semesters.
Admission Procedures
A. Applicants who have not attended college must:
   1. Secure the application form by calling or writing the Admissions Office or visiting the LCCC website at www.lccc.wy.edu.
   2. Complete the application according to the instructions and return it along with a records fee of $20 (nonrefundable). The application should be returned at the earliest possible date.
   3. Request that an official high school or GED transcript be sent to the Admissions Office.
B. Transfer applicants who have not previously attended Laramie County Community College:
   1. Transfer students will follow the procedure outlined above and request that an official transcript from each institution previously attended be sent directly to the Student Records Office.
   2. Official high school transcripts are not required when another college transcript gives complete information about the applicant’s high school records or bachelor’s degree completion.
   3. Transfer applicants must submit complete credentials.
C. Readmission Procedure:
   1. Former students of the college must complete readmission applications and return them to the Admissions Office.
   2. If students have attended other institutions since their initial application, transcripts must be requested from those institutions.
   3. Applicants who have not attended within the last five years must resubmit official high school and college transcripts.

Admission to Selective Programs
LCCC has additional admissions requirements for selective programs. To be considered for admission to selective programs, applications must be submitted by the established deadline and in accordance with the requirements of the respective programs. Requirements are published on the college Web page (www.lccc.wy.edu) and in each program handbook. Currently, selective programs include dental hygiene, diagnostic medical sonography, emergency medical services—paramedics, equine training, nursing, physical therapist assistant, radiography, surgical technology, and wind energy.

Admission of International Students
All foreign nationals except Temporary Workers or Intracompany Transferees will be classified as nonresident students unless the United States Citizenship and Immigration Services changes their status to permanent resident or they earn United States citizenship, in which case the residence policies apply.

C. Only those foreign nationals who possess proper authorization from the United States Citizenship and Immigration Services will be allowed to enroll for credit or noncredit classes.

Residence Classification
The following regulations govern the classification of students as resident or nonresident for the purpose of fee assessment at the seven Wyoming community colleges.
A. This residency policy shall be published in catalogs of the college districts.
   1. A student previously classified as a nonresident may be reclassified any time prior to the end of the published refund period of any term in which he/she qualifies.
   2. A properly registered student, who is classified as a resident by one Wyoming community college, will be considered a resident at all Wyoming community colleges.
B. Classification Procedures.
   1. Residence classification shall be initiated for each student at the time the application for admission is accepted and whenever a student has not been in attendance for more than one (1) semester.
   2. Individuals or their legal dependents, who are U.S. citizens or are in an immigrant status and certain nonimmigrants, may qualify for residency.
   3. Nonimmigrants and their dependents, who possess a valid visa from the U.S. Citizenship and Immigration Services with a classification of Temporary Workers or Intracompany Transferee and eligible for education, may qualify for residency. Eligibility for consideration will be based on the privileges and limitations of the visa held by the applicant.
   4. Community college districts may require applicants to supply information to document residency status.
C. Residence. Any of the following may be used by a student and would result in an individual being classified or reclassified as a Wyoming resident for tuition purposes:
   1. A graduate of a Wyoming high school or recipient of a GED in Wyoming who enrolls in a community college within twelve (12) months of either high school graduation or GED completion.
   2. A properly registered student, who is classified as a resident at the beginning of the next term following the marriage.
   3. A legal dependent under the age of 24, or a spouse of a resident of the State of Wyoming who qualifies as a resident based upon this policy.
   4. A legal dependent under the age of 24 of a Wyoming community college graduate.
   5. A student who marries a Wyoming resident shall be granted resident classification at the beginning of the next term following the marriage.
   7. Members of the U.S. Armed Forces who move to Wyoming within twelve (12) months from the date of honorable discharge from the service.
   8. An individual who can provide written verification that he/she has lived in Wyoming continuously for one (1) year prior to enrolling.
   9. Persons temporarily absent from the state due to military service, attendance at educational institutions,
Academic Services Assessment and Placement Policy

Academic skills assessment and subsequent placement are essential to assist students in making choices that will enable them to attain their educational goals. To assure appropriate advising, LCCC adheres to the following assessment and placement policy:

A. All new students unless otherwise exempted (See “Exceptions” below) must undergo basic skills assessment in the areas of reading, writing, and mathematics prior to their initial class registration at LCCC.

B. Students who lack necessary prerequisite skills for academic requirements of college-level courses must enroll in developmental course work in the applicable areas of reading, writing, and/or mathematics. Students must complete developmental requirements before enrolling in college-level courses that have these skills as prerequisites.

C. All students preparing to enroll in ENGL 1010 must provide satisfactory evidence of basic writing skills by attaining an English placement test score as defined in the class schedule or a satisfactory grade (S/C or better) in ENGL 0700 or ENGL 1001 or equivalent.

D. All students preparing to enroll in a college-level math course must provide satisfactory evidence of basic math skills by attaining a math placement test score as defined in the class schedule or a satisfactory grade (S/C or better) in MATH 0900, 0920, 0921, 0925, or 0930 or equivalent.

E. Students whose reading assessment test scores are below college level will be limited to those courses for which they have the prerequisite reading level skills. Students whose reading assessment test scores are at level 1 or lower must enroll in ENGL 0510 during their first semester at LCCC.

Exemptions

A. Students who have taken the ACT and scored at the minimum level or higher within the previous 12 months and have had their scores sent to the Admissions Office.

B. Students who hold college degrees.

C. Students transferring from accredited institutions of higher education who present valid transcripts indicating successful completion of course work may be exempted as follows:
   1. Exemption from math placement exam: Completion of a college-level mathematics course with a grade of C or higher. It is highly recommended that those students who still need to enroll in one of the following math courses (MATH 0900, 0920, 0930, 1000, or 1400) take the math placement exam to ensure appropriate math course selection.
   2. Exemption from English placement exam: Completion of a college English course equivalent to ENGL 1010 with a grade of C or higher.
   3. Exemption from reading placement exam: Completion of 12 credits of college-level courses, with a grade of C or higher, that are transferable to LCCC.
   4. Students who are not degree-seeking or transfer-oriented and meet prescribed course prerequisites.

E. Students who audit courses.

Students must take the placement tests in order to show proof of meeting course prerequisites, unless students can demonstrate:

A. Sufficient ACT scores (22 in English, 20 in reading, minimum of 21 in math), scores must be less than a year old.

B. Transcripts from a regionally accredited college or university that demonstrate adequate math, reading, and English skills. The Student Records Office will evaluate the transcripts to determine if courses taken will meet college prerequisites.

C. Students who are not degree seeking.

NOTE: In selected programs there may be additional (higher) reading requirements for acceptance into those programs. Also, selected programs may require placement tests for all candidates prior to acceptance. Students should consult the appropriate advisors in those program areas.

Registration

Academic Advising

At LCCC, academic advising is an integral part of learning. The advising partnership between advisor and student is a continuous, interactive process that empowers students to make informed decisions and facilitates the achievement of academic, career, and personal goals.

All students new to LCCC are required to meet with an advisor in the Advising Center prior to registering for their first semester. The purpose of this contact is to introduce new students to the college, its academic policies and processes, and to provide students a venue for asking questions and for seeking information. Prior to this meeting, students must have either taken the COMPASS placement test, have ACT scores that meet the college’s standards, or have submitted copies of college transcripts. Advisors assist students with understanding programs of study, connecting LCCC programs to the student’s future goals, and matching placement levels to appropriate courses.

After the first semester, students with declared majors are assigned faculty or program area advisors with whom they meet for advising each semester. Students who are undeclared or general studies majors remain with the Advising Center for their advising needs.

It is the students’ responsibility to check courses, dates, and times carefully when registering for classes at LCCC. By accepting their schedules during registration, students acknowledge that they are solely responsible for the course selections, including their applicability to LCCC degrees or certificates.

Albany County Campus students can call 307.721.5138 to schedule an appointment with an advisor.

Course Load

Twelve hours constitute a minimum full-time course load, but the normal load for one semester is 16 semester hours. The maximum load is 19 hours. Students desiring to take more than 19 hours must receive permission from the dean.
of the declared major. Students working more than 15 hours a week are strongly advised to reduce their course loads accordingly.

Course or Class Schedule Changes
In order to make changes to his/her class schedule, the student must do the following:
1. Obtain a change of enrollment form from the Student Records Office.
2. List courses to be dropped or added. The instructor’s signature is required for adding a course after the late registration period. The division dean’s signature is required for dropping a course after the withdrawal date.
3. Return the completed form to the Student Records Office.

Note: A veteran must contact the campus veterans office when any change of schedule is made. Financial aid recipients should be aware that changes in enrollment may affect the financial aid awards for the semester in which the change occurs and/or the student’s future eligibility under the academic progress requirements.

Withdrawal Procedures
In the event a student withdraws from the college, that student should initiate the process by obtaining a drop form from the Student Records Office and completing it. For a 15-week course, a student may withdraw any time prior to the end of the ninth week. For courses less than 15 weeks in length, which includes summer semester, the deadline for withdrawing is the midpoint of the course. For any class that is officially dropped or withdrawn after the 20th day of instruction, a grade of “W” will be noted on the transcript. All courses that are less than a full semester in length will have the “drop period” and the grade of “W” adjusted accordingly. Any exception to this withdrawal policy must be presented by the student or the instructor to the appropriate division dean.

Administrative Holds
A student may be prohibited from registering for any of the following reasons:
1. Delinquent financial accounts at the college such as bad checks, defaulted loans, unpaid residence hall or bookstore accounts, traffic fines, and library fines.
2. Academic suspension imposed by the college.
3. Disciplinary suspension or expulsion imposed by the college.

Administrative Withdrawals
After written notification, a student’s registration may be canceled by either the Dean of Enrollment Management or the Vice President of Student Services if the student:
1. Has not paid tuition by the payment due date.
2. Registered for classes while under suspension or expulsion.
3. Has a delinquent financial account at the college.
4. Is required to withdraw due to a disciplinary action.
5. Is physically or psychologically unable to continue classes, or is unable to withdraw personally, and it is judged that the student would have withdrawn if given the opportunity.
6. The college may require a student to take a medical withdrawal if there is a sufficient showing that (a) the student presents a significant health and/or psychological risk to self and/or others, (b) the student is engaging or is likely to engage in behavior that presents a real danger of substantial and imminent harm to self and/or others, and/or (c) the student’s behavior substantially impedes and/or disrupts the lawful activities and/or learning environment of other members of the campus community. Medical withdrawal may only be approved by the Vice President of Student Services based on a written recommendation from the CARE Team, and students who have been withdrawn according to the medical withdrawal procedure must meet with the Vice President of Student Services prior to re-enrollment.
7. Fails to meet academic progress requirements in a selective admission program.

Instructor-Initiated Withdrawals
Students may be withdrawn on or before the deadline date for withdrawal by the instructor if the student does not meet the prerequisite guidelines in the catalog or the attendance guidelines outlined in the course syllabus distributed at the beginning of the course.

Effect of Withdrawals on Financial Aid
A partial or total withdrawal by a financial aid recipient may impact the student’s standing with regard to financial aid satisfactory academic progress standards. To obtain an outline for the financial aid academic progress standards, contact the Financial Aid Office. A total withdrawal will result in a recalculation of the student’s financial aid eligibility. Please refer to the section titled Return to Title IV Funds for Federal Financial Aid Recipients.

Tuition and Fees
Tuition and student fees are for the academic year 2011-2012. Tuition and fees are subject to change. Please check the website for current rates.

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* An additional $10 per credit fee is charged over and above 12 credit hours.

For a student attending the college less than full-time, the following fees apply:

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<tr>
<td><strong>Wyoming Resident (1-11 credit hours)</strong></td>
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<td>$71.00</td>
<td>$71.00</td>
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<tr>
<td>Student Fees</td>
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<td>$106.00</td>
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<tr>
<td><strong>Out-of-State Student (1-11 credit hours)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuition</td>
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<td>$213.00</td>
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<tr>
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<tr>
<td>Total</td>
<td>$248.00</td>
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</tr>
</tbody>
</table>
WUE (Western Undergraduate Exchange) (1-11 credit hours)

Tuition $107.00 a credit hour/semester
Student Fees $35.00 a credit hour/semester
Total $142.00 a credit hour/semester

The following fees and expenses apply to all students:

Records Fee (nonrefundable) Payable on application $20.00
Credit by Examination Fee
  CLEP Subject Examination Fee (subject to change) $77.00
  plus administrative fee to LCCC $20.00
  Departmental Examination Fee (per credit hour) $25.00
  DSST Subject Examination Fee (subject to change) $80.00
  plus administrative fee to LCCC $20.00
Initial Placement Test Fee No charge
Retake Placement Test Fee $5.00
Non-LCCC Placement Test Fee (per subject) $20.00
Cap and Gown Fee, estimated $30.00
Course Fees Vary according to course
Compressed Video Fee $20.00
( for students at the remote receiving site)
Online Fee (per credit hour) $10.00
Telecourse Fee (per telecourse) $20.00
Books and Course Supplies, estimated $350 per semester

Deferred Tuition and Fee Payment Plan

Students may elect to pay their tuition and fees through LCCC’s Automatic Payment Plan. LCCC has contracted with Nelnet Business Solutions (NBS) to provide an automatic payment plan that is an easy, convenient, and interest-free alternative for payment of tuition and fees. A student must pay a nonrefundable $25 processing fee to NBS and agree to automated withdrawal payments by NBS to participate in the plan. The automated withdrawal payments can be from checking or savings accounts or major credit card accounts. Plan details are available on LCCC’s website under payment options for your student account or at the Student Records, Financial Aid, or Accounting Offices. See schedule below for deadlines, required down payments, and number of payments for remaining balance.

Students enrolled in 11- to 16-week courses will be allowed two installment time periods for the balance due.

<table>
<thead>
<tr>
<th>Length of Course</th>
<th>100% Refund Period</th>
<th>50% Refund Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 weeks</td>
<td>1-7 calendar days</td>
<td>8-14 calendar days</td>
</tr>
<tr>
<td>13-14 weeks</td>
<td>1-6 calendar days</td>
<td>7-12 calendar days</td>
</tr>
<tr>
<td>11-12 weeks</td>
<td>1-5 calendar days</td>
<td>6-10 calendar days</td>
</tr>
<tr>
<td>9-10 weeks</td>
<td>1-4 calendar days</td>
<td>5-8 calendar days</td>
</tr>
<tr>
<td>7-8 weeks</td>
<td>1-3 calendar days</td>
<td>4-6 calendar days</td>
</tr>
<tr>
<td>5-6 weeks</td>
<td>1-2 calendar days</td>
<td>3-4 calendar days</td>
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<tr>
<td>3-4 weeks</td>
<td>1st calendar day</td>
<td>2nd calendar day</td>
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<tr>
<td>1-2 weeks</td>
<td>**prior to first day</td>
<td>1st calendar day</td>
</tr>
<tr>
<td>less than 1 week</td>
<td>**prior to first day</td>
<td>**prior to first day</td>
</tr>
</tbody>
</table>

Complete withdrawals will be processed for refunds as soon as possible. Students may expect to receive refund checks approximately four to six weeks after withdrawal from the college. No cash refunds will be issued.

Return of Title IV Funds for Federal Financial Aid Recipients

This policy applies to students who have been awarded assistance through the Federal Pell Grant, FSEOG, or Federal Stafford Loan programs, or whose parent has received Federal PLUS Loan proceeds on the student’s behalf. For these students, this policy overrides the LCCC Refund Policy that is outlined above.

Federal financial aid is intended to help with education-related expenses for an entire term. If a student does not

register for courses, registers but does not begin attendance, or withdraws, drops out, or otherwise cancels his or her registration on or before the census date, all federal aid offered to that student for that semester will be canceled. Students who have signed a campus housing contract will be subject to the terms of that contract and will not receive financial aid for any debt thereby incurred.

Students who withdraw, drop out, are expelled or are administratively withdrawn after the census date will be subject to the federal refund policy. In addition, students may be required to repay a portion or all the assistance they received for living expenses. Funds from refunds and repayments will be returned to the financial aid programs in the following order as required by federal regulations: unsubsidized Federal Stafford Loan, subsidized Federal Stafford Loan, Federal PLUS Loan, Federal Pell Grant, Federal SEOG, or other Title IV programs.

Examples of Return of Title IV Funds repayment calculations are available upon request at the Financial Aid Office.

Refund Policy for Noncredit Courses

There is a separate and different refund policy for all continuing education and life enrichment noncredit courses. Please see the current Life Enrichment class schedule.

Academic Policies and Regulations

Catalog Under Which a Student May Graduate

The catalog in use at the time a student first enrolls in credit classes determines the degree or certificate requirements for graduation. However, students who have a two-semester break, excluding summer term, must meet the degree or certificate requirements of the catalog in use at the time of readmission.

The college reserves the right to substitute courses for those no longer offered or to substitute one course for another in any program or degree. Refresher classes may be required for some skills courses.

Specific allied health programs require students to meet graduation requirements of the class for which they are admitted or readmitted.

Prerequisites

A prerequisite is designed to help students be successful. Prerequisites also inform prospective students what body of knowledge is necessary to be successful in a particular course.

If a prerequisite course is listed for a subsequent course, the student must have completed satisfactorily (grade of C or better) the prerequisite course, scored at an equivalent level on the college placement test, or completed an equivalent course at a college/university with regional accreditation. Equivalent courses must be demonstrated by submitting an official transcript, and final determination will be made by the Student Records Office/Registrar. For additional information, please refer to the “Academic Skills Assessment and Placement Policy” on Page 9.

Class Attendance

Students are expected to attend all classes for which they enroll. Students are responsible for all class work missed during an absence. Satisfactory attendance is normally a condition precedent to successful completion of the course. Attendance guidelines are outlined in the course syllabus.

Grading System, Grade Reports, and Honors

The grading sequence at Laramie County Community College is A, B, C, D, F, S, U, I, W and Audit. A grade point scale is incorporated to maintain records that are consistent with neighboring institutions to ensure ease of transferability.

Grade Point Scale is:

A ....... Excellent ...................................................... 4 points
B ....... Above Average .............................................. 3 points
C ....... Average ....................................................... 2 points
D ....... Below Average .............................................. 1 point
F ....... Failing .......................................................... 0 points
S ....... Satisfactory (equivalent of “C” or higher) ............ 0 points
U ....... Unsatisfactory (equivalent of “D” or “F”) ............ 0 points
I ....... Incomplete ...................................................... 0 points
W ....... Withdrawal from class ..................................... 0 points
Audit .... Course taken for informational purposes only .......... No credit
AF ....... Academic Forgiveness .................................... No credit
TR ....... Transfer Credit or Credit by Exam ..................... 0 points

A student may re-enroll in a course in an attempt to earn a higher grade.

Satisfactory/Unsatisfactory Grades

Subject to the provisions listed below, a student may request to be graded on a Satisfactory (S) credit basis rather than the A, B, C, D, F, I system:

1. The decision must be made before the end of the first week of the class and agreed upon by the instructor of the course.
2. Courses which will be graded only on a satisfactory (S) credit basis will be identified as such in the class schedule.
3. The (S) credit option may not transfer to some institutions; therefore, students are urged to consult with their advisors prior to registration.
4. An (S) grade is the equivalent of a “C” or higher. A (U) grade is the equivalent of a “D” or “F” grade.
5. The grades of “S,” “U,” “I,” “W” and Audit are not calculated into the GPA.

Withdrawal

For any class that is officially dropped after the 20th day of instruction, a grade of “W” will be noted on the transcript. All courses that are less than a full semester in length will have the “drop period” and the grade of “W” adjusted accordingly.

Incomplete Grades

The incomplete “I” grade is a temporary grade issued at the request of the student with the consent of the instructor for reasons beyond the student’s control. To be eligible for requesting and receiving an “I,” a student must have: a) a valid and justifiable reason for requesting the “I,” b) attended more than 60 percent of the class sessions, c) satisfactorily met the course requirements as defined by the instructor, d) completed approximately two-thirds of the course length, e) met with the instructor and completed and signed the necessary forms for the incomplete.

The “I” grade cannot be changed to an audit or withdrawal by the student. If the work for the incomplete is not completed within the time allowed, then the “I” will automatically be changed to an “F.” The “I” must be made by the “date due” agreed to by both the instructor and the student in the written contract. The maximum allowable “date due” is one calendar year from the last day of finals. An extension of time may be granted by the instructor under extraordinary circumstances.
Auditing Courses
Students who want to enroll in a course for informational purposes only may do so by registering for audit. Students may repeat an audited course later for credit by registering for the course and paying tuition and any applicable fees. The tuition and any fees for an audited course are the same as if the course were taken for credit. The decision to audit a course should be made at registration; however, students may elect to change to audit if the following procedure is observed:

1. For a 15-week course, students may change a course from credit to audit at any time prior to the end of the ninth week of the semester following the standard procedure for a schedule change, as outlined below.
2. For courses fewer than 15 weeks in length, including summer courses, the deadline for changing is the midpoint of the course.
3. Students may only change a course from audit to credit after the first class meeting with an instructor's signature.

Often an audit student is not expected to take examinations, complete writing assignments, or complete other course requirements. However, because of the particular nature of some courses, the instructor may require that an audit student complete writing assignments, term papers, examinations or other course requirements. Any student enrolled in a course for audit should clarify the requirements with the instructor before enrolling or on the first day of class. If there are course requirements that an audit student is unprepared or unwilling to meet, he or she may drop the course immediately subsequent to the first class period and receive a full tuition refund. An audit student who is unwilling to meet the stated course requirements and does not drop the course immediately subsequent to the first class period, may be withdrawn from the class at any time by the instructor for failing to meet stated requirements.

Academic Honors
Students who earn a grade point average of 4.0 in any semester for 12 or more credit hours will be listed on the President’s Honor Roll; those earning a 3.5 for 12 or more credit hours will be listed on the Vice President’s Honor Roll. Part-time students with a grade point average of 4.0 will be listed on the President’s Honor Roll if the students have accumulated at least 12 credit hours. To again be listed or continue on the honor roll, blocks of 12 credit hours must be completed with a GPA of 4.0. The same procedure will be followed for the Vice President’s Honor Roll, with 3.5 as the required grade point average.

Students who will receive an associate degree and whose cumulative average is 3.75 or above will be graduated WITH HIGH DISTINCTION, and students whose cumulative average is 3.5 or above will be graduated WITH DISTINCTION.

Academic Rights and Responsibilities
Each student is expected to display appropriate conduct while on campus or attending college-sponsored activities. The college will take appropriate action for any violation of the Academic Code of Conduct, which includes but is not limited to plagiarism, cheating, and the unauthorized acquisition or disposition, or other trafficking in exams, papers, or other classroom materials for which the student bears responsibility for originality. Disciplinary action may be taken if violations of the Academic Code of Conduct or General Code of Conduct occur. The Student Handbook, which contains the Codes of Conduct, Sanctions, Administrative Due Process and Appeals procedures, is available throughout the year in the offices of the Vice President of Student Services, Campus Living and Learning, the Ludden Library, or on LCCC’s website. Each student, as a member of the college academic community, is responsible for becoming familiar with and abiding by these policies and regulations. (See the LCCC Student Handbook for further information on student rights and responsibilities.)

Satisfactory Academic Standing
Satisfactory academic standing must be maintained during attendance at the college in order that students may accomplish their educational goals. A system has been designed to encourage and assist students to attain these goals.

1. Every student must have a minimum of a 2.0 (C) cumulative grade point average by the time the degree is earned.
2. Students may progress toward this goal of satisfactory academic standing if the following standards are met:

   **Minimum Required Cumulative Grade Point Average**
   - 2.0 or better = satisfactory standing
   - 1.99 or less = academic probation
   - Two consecutive semesters with a cumulative GPA of 1.99 or less = academic suspension

**ACADEMIC PROBATION/SUSPENSION**
Students are placed on academic probation when their cumulative grade point average (GPA) falls below 2.0. Academic probation is used to alert both the student and the college that action must be taken to correct academic deficiencies.

Students are placed on academic suspension if, after the semester spent on academic probation, the cumulative GPA remains below 2.0. Students will be placed on academic suspension for one year. During the suspension year, the student will not be able to register for classes without first meeting with an advisor in the Advising Center to identify areas of weakness and devise strategies for repairing his or her academic record. Advisors may prevent enrollment during the suspension period if, in the advisor's judgment, the student is not prepared to repair his or her academic record and/or continue successfully. Students who choose not to enroll during the suspension year will be required to reapply for admission to LCCC when reenrollment is desired.

Once a student’s cumulative GPA is back above the 2.0 level, he or she is no longer considered to be on academic probation/suspension.

**ACADEMIC FORGIVENESS**
Laramie County Community College permits degree-seeking students to petition for academic forgiveness of course work that was previously taken at LCCC. The goal of this procedure is to lighten the burden of poor prior performance once a student has demonstrated her/his ability to succeed academically. Students wishing to pursue academic forgiveness should discuss the options available with their academic advisor.

**Family Educational Rights and Privacy Act**
The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights include:

1. The right to inspect and review students’ education records within 45 days of the day that Laramie County Community College receives a request for access. Students should submit to the director of Enrollment Services, vice president, division dean of the academic department, or other appropriate official, written requests that identify the record(s) they wish to inspect. The college official will make arrangements for access and notify the students of the time and place where the records may be inspected. If the records are not
maintained by the college official to whom the request was submitted, that official shall advise the students of the correct official to whom the request should be addressed.

2. The right to request the amendment of students’ education records that students believe are inaccurate or misleading. Students may ask the college to amend a record that they believe is inaccurate or misleading. They should write the college official responsible for the record, clearly identify the part of the record they want changed and specify why it is inaccurate or misleading. If the college decides not to amend the record as requested by students, the college will notify the students of the decision and advise the students of their right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to students when notified of the right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in students’ education records, except to the extent that FERPA authorizes disclosure without consent. One exception that permits disclosure without consent is disclosure to school officials with legitimate educational interests including contractors, volunteers, and other non-employees performing institutional services and functions. A school official is a person employed by the college in an administrative, supervisory, academic or research, or support staff position (including law enforcement personnel and health staff), a person or company with whom the college has contracted (such as an attorney, auditor, or collection agent), a person serving on the Board of Trustees, or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility. Upon request, the college discloses education records without consent to officials of another school in which students seek or intend to enroll.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by LCCC to comply with the requirements of FERPA.

Laramie County Community College designates the following items as Directory Information: student name, address, phone number, major field of study, participation in officially recognized activities and sports, photograph, e-mail address, dates of attendance including whether currently enrolled, enrollment status (full time, part time), and degrees and awards received. The college may disclose any of these items as Directory Information: student name, address, phone number, major field of study, participation in officially recognized activities and sports, photograph, e-mail address, dates of attendance including whether currently enrolled, enrollment status (full time, part time), and degrees and awards received. The college may disclose any of these items without prior written consent, unless notified to the contrary in writing by the student at the Student Records Office.

**Records of Deceased Students**

Unless required by law, Laramie County Community College will release the education records of deceased students only with the authorization of the personal representative (executor/executrix), parents, child, and/or spouse of a deceased student for a period of ten (10) years after the death of the student. Proof of death and relationship to the deceased student are required for the release of any deceased student’s records. After the prescribed period of time, access to the deceased student’s education records will be determined by LCCC’s official custodian of records, on a case-by-case basis, in accordance with applicable state and federal law.

**Servicemembers Opportunity College**

Laramie County Community College has been designated an institutional member of Servicemembers Opportunity Colleges (SOC), a group of more than 400 colleges and universities providing voluntary postsecondary education to members of the military throughout the world. As a SOC member, LCCC recognizes the unique nature of the military lifestyle and has committed itself to easing the transfer of relevant course credits, providing flexible academic residencies requirements, and crediting learning from appropriate military training and experiences. SOC has been developed jointly by educational representatives of each of the Armed Services, the Office of the Secretary of Defense, and a consortium of 13 leading national higher education associations; it is sponsored by the American Association of State Colleges and Universities (AASCU) and the American Association of Community Colleges (AACC).

Servicemembers are encouraged to consult the Admissions and Records Office at the LCCC campus concerning the award of credit for nontraditional learning.

**Distance Learning**

Distance learning courses currently offered by Laramie County Community College include online courses and compressed video courses.

**Online (Internet) Courses**

Online courses enable students to take college-level courses while meeting work, family, or transportation schedules that do not correspond to traditional classroom hours.

Online courses require that students be self-motivated and self-directed and have basic knowledge of how to operate a computer. Students must have access to a computer that is connected to the Internet. Most online courses can be approved for VA benefits depending on the student’s program.

**Compressed Video Courses**

Compressed video is a technology that allows students at an alternate site to receive instruction on a video monitor. Students at the alternate site receive instruction simultaneously with students at the LCCC main campus classroom (EEC 132). Students can see and talk to one another at all sites.

**Correspondence and Military Service Credit**

Credits earned by correspondence or in military service-connected schools or through the U.S. Armed Forces Institute will be reviewed by the college and credit granted, if applicable. The American Council on Education (ACE) guidelines will be used for the evaluation of military service credits. A student requesting military service credit should contact the Director of Enrollment Services.

**Credit by Examination**

Credit by examination is designed to measure knowledge learned in school, on the job, through reading, through observation or through life experiences. This testing program is another method of accumulating credit toward degree completion. The components of the program are as follows:

1. CLEP (College Level Examination Program) and DSST (formerly DANTES)

Subject examinations cover material taught in courses with similar titles at LCCC. The college will grant
the same amount of credit equivalency to students earning a satisfactory score as it grants to students who successfully complete the course. Each subject examination is 90 minutes long. LCCC does not award credit for CLEP general exams.

2. DEP (Departmental Examination Program)—Specific LCCC course examinations Credit for many courses offered by LCCC may be earned through departmental examinations if a CLEP subject examination is unavailable. If an LCCC course exists for which a student would like to earn credit through an examination, the student should contact the appropriate division dean to determine whether that possibility exists. Minimum scores for departmental examinations are established by the individual divisions. Refer to Testing Guidelines for more information.

3. FLATS (Foreign Language Achievement Testing Services) FLATS provides students the opportunity to receive credit in language courses taught through LCCC. Credit may only be earned for courses not available through other test opportunities (CLEP, DSST, or Departmental Exam). The amount of credit earned is the equivalent to the amount of credit offered by LCCC. Tests require two and one-half hours to complete. All policies and procedures pertaining to CLEP and DSST will apply to FLATS.

CLEP, DSST, FLATS, and the DEP can be administered at Laramie County Community College. For additional information, contact the Testing Center, Arp Building, Room 169, 307.778.1105.

Transcript Entries

To qualify for credit by examination, a student must be enrolled at LCCC. Credit awarded through credit by examination programs will be applied to the total hours earned and will be entered on the student’s transcript. A student may use credit by examination to fulfill all degree/certificate graduation requirements except for the mandatory 15-credit hour residency requirement. All credits by examination will be entered on the student’s transcript as Transfer Credit (TR) only. Credit will be awarded for Subject Exams only, not General Exams. Credit will be awarded only for exams for which there is a direct equivalent LCCC course.

Credit for credit by examination subject examinations will be granted based on the schedule available in the Testing Center or the LCCC College Catalog. Credit earned by examination will be subject to all policies as stated within this general catalog.

Transferring Credits by Exam

Students must request that DSST and CLEP scores be sent directly from The College Board. FLATS scores must be requested through the FLATS at Brigham Young University. Students should be aware that not all colleges have the same policies regarding acceptance of credit by examination. Therefore, if a student is transfer-bound, it is the student’s responsibility to find out whether credit by examination earned at LCCC will transfer to another institution.

Testing Guidelines

1. Registration information for CLEP, DSST, and FLATS examinations may be obtained at the Testing Center.
2. CLEP, DSST, and FLATS examinations will be administered by scheduled appointment.
3. Students may contact the Testing Center for the current schedule of fees for CLEP, DSST, and FLATS. An administrative fee of $20 is assessed for each CLEP, DSST, or FLATS subject examination.
4. CLEP, DSST, and FLATS examinations may not be repeated within six months from the time the examination was administered.
5. Departmental examinations are administered and scheduled by the instructor of the individual department.
6. A fee of $25 per credit hour is assessed for each departmental examination.
7. All CLEP, DSST, and FLATS subject examinations are administered in the LCCC Testing Center. CLEP and DSST subject examinations are also administered at F.E. Warren Air Force Base.

Transferability of Courses

A. Transcripts: Upon request by a student through the National Student Clearinghouse, the Student Records Office will send transcripts of records to any college or agency named. There is a $5 charge for each copy of an official transcript. Students can be issued an official transcript when all financial obligations to the college have been satisfied. Since LCCC is not permitted to copy and forward transcripts of other institutions, students must request records directly from prior institutions. All credentials become the property of the college.

B. Transfer of Credits from Regionally Accredited Postsecondary Institutions

Credit earned at other institutions will transfer to LCCC upon evaluation by the Student Records Office. Each college-level course completed with a grade of C or higher may be accepted in transfer. The Student Records Office will be responsible for the evaluation and acceptance of all transfer credit.

When students transfer to LCCC with an associate of science, an associate of arts, a bachelor’s, or a graduate degree from an accredited institution, LCCC will accept that general education curricula, although students still must fulfill the Wyoming constitutional requirement. However, students transferring with an associate of applied science degree must fulfill LCCC’s general education requirements if they are working toward an associate of arts or an associate of science degree.

C. Transfer Credits From Approved Secondary Institutions

Laramie County Community College will award credit for various International Baccalaureate (IB) and Advanced Placement (AP) subjects as indicated in the tables on Page 16.

D. Transfer of Credits to Approved Institutions

Credits earned at Wyoming community colleges are transferable to other approved institutions, though students are advised that usually only grades of C or higher can be applied to a degree program. Students, in conjunction with their advisors, should carefully consider each course to assure that no problems with transfer will arise. A knowledge of the transfer policy of the institution to which transfer will be made is also helpful. Transferability of each course is ultimately determined by the receiving institution.

Students must see their advisors or refer to the Wyoming Higher Education Transfer Guide to obtain information on transfer of credit to the University of Wyoming.
## International Baccalaureate (IB) Courses

<table>
<thead>
<tr>
<th>IB SUBJECT</th>
<th>REQUIRED minimum score</th>
<th>LCCC COURSE</th>
<th>CREDIT HOURS transferred to LCCC</th>
<th>COURSE TITLE</th>
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</thead>
<tbody>
<tr>
<td>Social Anthropology SL</td>
<td>4+</td>
<td>ANTH 1200</td>
<td>3</td>
<td>Introduction to Cultural Anthropology</td>
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<tr>
<td>History—American HL</td>
<td>4</td>
<td>HIST 1211</td>
<td>6</td>
<td>U.S. History I</td>
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<td></td>
<td></td>
<td>HIST 1221</td>
<td></td>
<td>U.S. History II</td>
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<td>Math Methods</td>
<td>4</td>
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<td>5</td>
<td>Pre-Calculus Algebra and Trigonometry</td>
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<tr>
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<td>MATH 1450</td>
<td>8</td>
<td>Pre-Calculus Algebra and Trigonometry Calculus I</td>
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<tr>
<td></td>
<td></td>
<td>MATH 2200</td>
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</tr>
<tr>
<td>English HL</td>
<td>4+</td>
<td>ENGL 1010</td>
<td>3</td>
<td>English I Composition</td>
</tr>
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<td>Psychology SL</td>
<td>4+</td>
<td>PSYC 1000</td>
<td>4</td>
<td>General Psychology</td>
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<td></td>
<td></td>
<td>FREN 1020</td>
<td></td>
<td>First-Year French II</td>
</tr>
<tr>
<td>German Language</td>
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<td>GERM 1010</td>
<td>4</td>
<td>First-Year German I</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>SPAN 1020</td>
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<td>First-Year Spanish II</td>
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<td>BIOL 1000</td>
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<td>Principles of Biology</td>
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<td>Physics HL</td>
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<td>PHYS 1110</td>
<td>8</td>
<td>General Physics I</td>
</tr>
<tr>
<td></td>
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<td>PHYS 1120</td>
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### Advanced Placement (AP) Information

(Students will be required to submit their AP Test Scores.)

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>ACCEPTABLE SCORE</th>
<th>COURSE TITLE</th>
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<tr>
<td>Biology</td>
<td>3, 4, or 5</td>
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<tr>
<td>Calculus AB</td>
<td>3, 4, or 5</td>
<td>MATH 2200, Calculus I</td>
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<tr>
<td>Calculus BC</td>
<td>3, 4, or 5</td>
<td>MATH 2200, Calculus I and</td>
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<td></td>
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<td>MATH 2205, Calculus I</td>
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<td>Chemistry</td>
<td>3, 4, or 5</td>
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<td>CHEM 1030, General Chemistry II</td>
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<td>Computer Science A</td>
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<td>Computer Science AB</td>
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<td>COSC 1010, Intro to Computer Science I and</td>
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<td>European History</td>
<td>3, 4, or 5</td>
<td>HIST 1110, Western Civilization</td>
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<td>French Language</td>
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<td>French Language</td>
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<td>German Language</td>
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<td>GERM 1020, First Year German II and</td>
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<td>GERM 2030, Second Year German I</td>
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<td></td>
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<td>STAT 2070, Introductory Stat for Social Science</td>
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</table>
Student Support Services and Campus Life

Student Rights and Responsibilities
Laramie County Community College has established expectations designed to maximize the learning environment on campus. All members of the college community are expected to approach their academic endeavors, relationships, and personal responsibilities with a vigorous commitment to the pursuit of free expression and inquiry, integrity, civility, appreciation for diversity, and respect for self and others. Each student enrolling in the college assumes an obligation as a responsible member of the college community to demonstrate conduct compatible with the college’s mission as an educational institution.

As a member of the campus community, it is each student’s right and each student’s responsibility to be informed. The following documents are just a few of the reports, policies, and procedures pertaining to student rights and responsibilities:

- Statement of Student Rights and Responsibilities, LCCC Procedure 5700
- Annual campus security report
- Graduation/Persistence Report
- Alcohol and Drug Education and Prevention information
- Sexual harassment and sexual assault policy and procedures
- Family Educational Rights and Privacy Act (FERPA) procedure
- Student grievance procedures

These materials regarding student rights and responsibilities are located online at www.lccc.wy.edu, the Campus Living and Learning Office, or the Vice President of Student Services Office.

Commitment to Diversity
Laramie County Community College defines diversity as that quality of its physical, social, cultural, and intellectual environment that embraces the rich differences within the multiplicity of human expression and characteristics, including but not limited to, age, culture, ethnicity, gender identification and presentation, health status, language and linguistic ability, life experiences, nationality, political viewpoints, race, religion, sexual orientation, socioeconomic status, veteran status, and mobility, sensory, or perceptual ability.

Diversity is a key to excellence in education. LCCC is committed to enriching the lives of its students, faculty, staff, and community by providing a diverse campus where the safe exchange of ideas, knowledge, and perspectives is an active part of learning.

Counseling and Campus Wellness
College Community Center, Room 129, 307.778.4397
LCCC’s professionally licensed, mental health staff provides full-service counseling, which includes individual and group counseling, biofeedback, psychological assessment, workshops, seminars, crisis intervention, and referral.

All LCCC enrolled students are eligible for free confidential counseling services, regardless of age, ethnicity, gender, disability, race, religion, sexual orientation, or progress toward academic degree. LCCC is a Safe Zone (a safe, inclusive, and positive educational environment) for all individuals seeking services.

Students experiencing a mental health crisis during regular office hours can stop by the Counseling and Campus Wellness Center for help in determining an appropriate course of action. If a crisis occurs during evening or weekend hours, call 911 and campus security. Students at the Albany County Campus should call 307.772.4254.

Advising and Career Services
Student Services Building, 307.778.1214
The Advising and Career Services Office covers three functions: academic advising, career services, and the Transitional Services Program.

The Advising Center provides academic advising to all new students, general studies majors, pre-nursing majors, and students on academic probation or suspension. Advisors can also assist students with the transfer process and with major and career exploration. Students interested in career interest assessments may meet with an advisor by appointment to take either the Kuder Journey, the Myers-Briggs Type Indicator and/or the Strong Interest Inventory. Students at the Albany County Campus should call 307.721.5138.

The Career Center houses a wealth of information on all aspects of the career search process, from information about specific job duties for individual occupations, educational requirements, and salary ranges, to tips and coaching on résumé writing, interviewing, salary negotiation, and internships. Students seeking employment (on or off campus) may complete applications in the Career Center and look for job postings in person or online at CollegeCentral.com.

The Transitional Services Program (TSP) is a program that provides financial support and mentoring to low-income college students. Preference is given to single parents, displaced homemakers, and those pursuing an associate of applied science degree or certificate program. Students in the TSP must use other federal financial assistance first. TSP can offer help with expenses such as tuition, books, child care, mileage reimbursement, tools or uniforms, as well as academic advising, career planning, and referrals to other sources. TSP is funded through a variety of sources including LCCC, the Carl D. Perkins Career and Technical Education Improvement Act of 2006, the LCCC Foundation, and other resources as available.

Testing Center
Arp Building, Room 169, 307.778.1105
Numerous tests are available in the following areas: College Level Examination Program (CLEP) tests, DSST (formerly DANTES), LCCC departmental exams, the LPN STEP, Test of Essential Academic Skills (TEAS), and other standardized testing instruments. Academic skills assessment and placement tests are described in the catalog on Page 9.
Alcohol and Drug Education and Prevention
Health Education Office, Residence Hall Office, Room 106C, 307.432.1631

Laramie County Community College has the responsibility of maintaining an educational environment conducive to academic achievement and of assisting students to be successful. LCCC recognizes that the use and abuse of alcohol and other drugs interfere with students’ educational goals and, therefore, is committed to facilitating a drug-free learning environment. Students, faculty and staff have access to education on alcohol and other drugs. As well as educating the college community, LCCC has very stringent policies governing the use of alcohol and other drugs on campus or at LCCC-sponsored activities.

Students should be aware that according to the Anti-Drug Abuse Act of 1988 (Section 5301), state and federal courts are provided with the ability to deny benefits to students who receive federal financial aid (e.g., Pell Grant). If a student is convicted of drug distribution or possession, the court may suspend eligibility for Title IV financial aid.

Students pursuing certificate or licensure credentials are responsible for violating LCCC’s substance-free policies. Mandatory minimum sanctions apply when students are convicted of these offenses.

Disciplinary Actions for Violation of the Drug and Alcohol Violations

Students are responsible for complying with provisions of Wyoming law that make it a crime to possess, sell, deliver or manufacture those drugs designated collectively as controlled substances. Any student who violates the law is subject to prosecution and punishment by the civil authorities and to disciplinary proceedings by the college.

The penalties which may be imposed by the college include verbal warnings, written warnings, restitution, withdrawal agreements, disciplinary probation, disciplinary suspension, summary suspension or expulsion. The following mandatory minimum sanctions apply when students are responsible for violating LCCC’s substance-free policies.

A. Trafficking in Illegal Drugs For students found responsible for the illegal manufacture, sale or delivery, or possession with intent to manufacture, sell or deliver any controlled substance, the minimum penalty shall be summary suspension.

B. Illegal Possession of Drugs For students found responsible for a first offense involving the illegal possession of any controlled substance, the minimum penalty shall be probation for a period of time to be determined on a case-by-case basis. A person on probation must agree to participate in drug and alcohol information sessions. For subsequent violations involving illegal possession of controlled substances, progressively more severe penalties shall be imposed including possible suspension or expulsion. Refusal or failure to abide by the terms in the probation shall result in possible suspension or expulsion.

C. Alcohol For students found responsible for offenses involving unlawful possession or consumption of alcohol, the minimum penalty shall be probation for a period of time to be determined on a case-by-case basis. For subsequent violations, a progressive penalty system based on the type of infraction and the circumstances involved will be administered. Additional penalties may include a required compliance in an educational activity, referral for alcohol assessment/counseling, suspension, restitution, voluntary community service, and/or removal from the residential living and learning system, if applicable.

System for Student Success
LCCC promotes student learning through a comprehensive program of academic support services known as the System for Student Success. The system is designed to provide campus-wide cross-curricular services to facilitate student learning.

Student Success Center
College Community Center, Room 128, 307.778.4315

The Student Success Center is a multidisciplinary tutoring and academic skills center. The Student Success Center houses self-help materials such as videos, audio tapes, computer software, workbooks and handouts. LCCC students may request regular appointments or drop in to work with a tutor to clarify, supplement and enhance individual study or course instruction. Students may request tutoring for any or all of the courses in which they are enrolled. Services are available six days a week with day and evening hours. Please call for current semester hours. Tutoring request cards are available in the Student Success Center.

Students interested in becoming tutors may pick up an application in CCC, Room 128 or call 307.778.4315 for more information.
Disability Support Services (DSS)
Education and Enrichment Center, Rooms 222-223
307.778.1359, TTY 307.778.1266
The Disability Support Services (DSS) at Laramie County Community College provides comprehensive, confidential services for LCCC students with documented disabilities. Services and adaptive equipment to assist with mobility, sensory and perceptual concerns are available through the DSS, and all services are provided free of charge to LCCC students.

The DSS maintains a library of resource information including disability issues, available college scholarships for students with disabilities, ADA facts and regulations, tips for college students with ADD and/or learning disabilities, and much more.

Students who have questions or want to make arrangements for DSS services should call 307.778.1359 for an appointment with a DSS staff member. Students at the Albany County Campus should call 307.721.5138.

LCCC Exam Lab
Education and Enrichment Center, Room 224, 307.778.1274
The LCCC Exam Lab provides a service within the college to administer telecourse, online, make-up and other educational institutions’ exams. (Fees may be charged for proctoring other institutions’ exams.) LCCC provides testing accommodations for students with special needs as recommended by the Disability Support Services staff. The Exam Lab also administers Microsoft Office Specialist (MOS) exams in Word, Excel, Outlook, etc.

Prometric Testing Center
Education and Enrichment Center, Rooms 224/226, 307.778.1274
LCCC is an in-state Authorized Prometric Testing Center (APTC) offering certification exams in Microsoft, Novell, Cisco, Compaq, CompTIA, Oracle and Senior Auto Glass. Students may contact the LCCC Exam Lab for information, registration procedures and scheduling.

Adult Career and Education System (ACES)
ACES, LCCC Campus, Career and Technical Building, Rooms 111 and 113 (offices), 307.637.2450
Eastern Laramie County Campus, 607 Elm Street, Pine Bluffs, WY 82082, 307.245.3595
The Adult Career and Education System (ACES) provides day and evening classes in Adult Basic Education (ABE), General Educational Development (GED), Adult Secondary Education (ASE), Literacy, English for Speakers of Other Languages (ESOL), and Career Skills. The classes are noncredit and individualized. Students also have the opportunity to achieve IC³ (Internet and Computing Core Certification) and/or MOS (Microsoft Office Specialist) certification to help validate their computer skills and increase their marketability to employers.

Career Skills
Through career skills training, students learn basic computer skills and prepare for employment. This training is self-paced and individualized. Students also have the opportunity to achieve IC³ (Internet and Computing Core Certification) and/or MOS (Microsoft Office Specialist) certification to help validate their computer skills and increase their marketability to employers.

Students Achieving Goals in Education (SAGE TRiO)
Student Success Center, College Community Center, Room 128, 307.778.4314
Students Achieving Goals in Education (SAGE) is a federally funded TRiO project that assists eligible students to remain in college, graduate, and/or transfer to four-year colleges. SAGE TRiO works with students who are low-income, first-generation college, and/or students with disabilities to ensure that they achieve their full academic potential. SAGE advisors foster a supportive academic environment by providing academic, personal, and financial aid advising; mentoring, assistance to identify the barriers to educational goals; and assistance to develop master academic plans that ensure academic success. SAGE works closely with other campus support offices to provide comprehensive services that add up to Students Achieving Goals in Education.

Adult Career and Education System (ACES)

Prometric Testing Center

Adult Career and Education System (ACES)

Adult Basic Education (ABE)
ABE provides individualized instruction for those students wanting to upgrade their basic reading, writing, and math skills.

General Educational Development (GED)
Individualized instruction is provided to prepare students to complete General Educational Development (GED) tests. Classes offered include literature and the arts (reading), writing, math, science, and social studies. Students who are wanting to upgrade their basic reading, writing, and math skills.

Adult Secondary Education (ASE)
ASE provides individualized instruction for students who have their high school diploma or GED and want to improve their basic skills to upgrade their employment opportunities or pursue further education. Classes offered include reading, math, and writing.

Literacy
Individual instruction, often utilizing one-to-one tutors, is provided to adult students functioning below the fourth-grade level in reading and math.

English for Speakers of Other Languages (ESOL)
The English for Speakers of Other Languages program provides opportunities for students to reach their language goals such as understanding, speaking, reading and writing the English language. Students will become more integrated into society by learning about American culture and customs. Students may also prepare for the naturalization process to become United States citizens. The classes are designed for the non-native speaker of English.

Career Skills
Through career skills training, students learn basic computer skills and prepare for employment. This training is self-paced and individualized. Students also have the opportunity to achieve IC³ (Internet and Computing Core Certification) and/or MOS (Microsoft Office Specialist) certification to help validate their computer skills and increase their marketability to employers.

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Bookstore
Student Services Building, Room 126, 307.778.1114
Albany County Campus, Room 203, 307.432.1667
The LCCC Bookstore in the Student Services Building is open Monday through Friday. The Bookstore sells new and used books, school supplies, and college novelty items. Other services include refunds, used book buy-backs and special orders (check with the Bookstore for policies). The Bookstore is closed on holidays, weekends and student breaks.
Annual Student Right to Know/Campus Security Report

In compliance with federal law No. 101-542, the Student Right-to-Know and Campus Security Act of 1990, Laramie County Community College provides crime statistics for the college for the past three calendar years and the campus security plan.

Crime Statistics

As required by law, the LCCC campus crime statistics annual report is provided on the LCCC Website at the Campus Living and Learning homepage (www.lccc.wy.edu) and in the Campus Security office.

Crime Security Plan

Walkways on the campus and all parking lots are well lighted. Regular security evaluations of the campus are conducted and improvements are implemented when they are needed.

LCCC has installed free courtesy/security telephones at strategic locations throughout the campus. On the wall adjacent to each telephone are instructions on what to do in the event of crimes and other emergencies.

The college employs a security force on a 24-hour, 365-day-a-year basis. The Laramie County Sheriff’s Department responds to activities of a criminal nature. Because of its high patrol activity in the vicinity of the campus, response time by the Sheriff’s Department is typically under two minutes.

The college security force, while unable to make arrests, is employed to enforce traffic and parking regulations; assist distressed motorists; make building security checks; and assist students, employees, and the general public in ways to make their time on campus a safe and satisfying experience. For further information, contact the Director of Campus Safety and Security in the College Community Center, Room 170, or refer to LCCC Campus Procedures–No. 8001, available in the Security Office.

Campus security may be contacted via cell phone at 307.630.0645 or 307.630.0866. The Security Office is open between 8 a.m. and 5 p.m. Monday through Friday and may be contacted at 307.778.1122. Campus security should be contacted to report crimes, criminal actions, or other emergencies.

The Security Office prepares incident reports on reported crimes and all other incidents on campus. Any criminal activity is reported immediately to the Sheriff’s Department.

Campus notification of a crime or crime problem is as follows: Security notifies the student newspaper and the employee newsletter of the incident to inform students and employees of the occurrence and to recommend precautionary measures to be taken to avoid any further similar incidents

A daily crime log is available for public inspection at the offices of the Campus Security or from the vice president of Student Services.

Graduation/Persistence Report

The following student data are provided in compliance with the requirements of Title I of P.L. 101-542, the Student Right-to-Know Act, as amended by P.L. 102-26, the Higher Education Technical Amendments of 1991.

During the 2006 fall semester, 313 first-time, full-time, certificate- or degree-seeking students enrolled at Laramie County Community College (LCCC). This group included 36 students who received athletics-related aid. The table below shows the percentages of these students who had graduated or had transferred to another college or university by August 2009 or who were still enrolled at LCCC during the fall 2009 semester.

<table>
<thead>
<tr>
<th></th>
<th>Graduated by August 2009</th>
<th>Transferred to another college or university by August 2009</th>
<th>Still enrolled at LCCC in Fall 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2006 first-time, full-time certificate- or degree-seeking students (313 students)</td>
<td>17.57%</td>
<td>28.43%</td>
<td>8.63%</td>
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<tr>
<td>Fall 2006 first-time, full-time certificate- or degree-seeking students who received athletics-related aid (36 students)</td>
<td>11.11%</td>
<td>36.11%</td>
<td>5.56%</td>
</tr>
</tbody>
</table>

Anyone with additional questions should contact the Manager of Institutional Research at 307.778.1113.

Vehicles on the Cheyenne Campus

All vehicles operated on the Cheyenne campus are subject to traffic and parking regulations established by the Laramie County Community College Board of Trustees and the Associated Student Government. Parking permits are not required except in the residence halls parking lot.

Campus Living and Learning

College Community Center, Room 139, 307.778.1108

Campus Living and Learning provides opportunities for students to develop friendships and skills to successfully achieve their academic and personal goals. Campus Living and Learning builds a strong campus community by sponsoring quality educational, leadership, social, recreational, diversity, family, and community service activities.

Getting involved with Campus Living and Learning provides the opportunity to learn and grow while working in partnership with others. Students participate in many rewarding and fun-filled experiences to expand leadership skills and knowledge. Campus Living and Learning provides a playful and purposeful learning environment, opportunities to connect with others, and support in discovering students’ potential. LCCC values a diverse community, honest and open communication, respect for self and others, and life-long learning.

Associated Student Government

College Community Center, Student Lounge, 307.778.4336

All students registered for credit classes at LCCC may consider themselves to be members of the Associated Student Government (ASG). ASG senators represent the students at the collegiate, community and state levels. ASG responds to students’ needs and voices their perspectives to LCCC administration. Senators serve with integrity, professionalism and impartiality in their role as liaisons between students, faculty and staff. ASG strives to improve the campus for all students by providing a forum for student concerns as well as programs and activities to benefit the college and community. ASG meetings are scheduled Tuesday at 12:15 p.m. in CCC 178 and are open to all students.
Diversity Services

Immigration Services (USCIS) are provided to international housing and issues with the United States Citizenship and services, academic and personal advising, and assistance with international students on F-1 visas. Orientation, transitional

The International Student Office offers services to assist

students at LCCC. Interested students, faculty, staff, and community members also have the opportunity to learn more and expand their cultural awareness through the International Student Association. International students at the Albany County Campus should call 307.721.5138 for more information.

Recognized Student Organizations

College Community Center, Room 140, 307 432 1630

Student organizations are recognized to enhance the educational, social, cultural, professional, spiritual, and/or recreational experiences of students. Recognized student organizations may be clubs or teams and are classified as instructional or student service organizations. Instructional clubs or teams are associated with, or are an extension of, a specific academic division or program. Students may join existing clubs or may choose to create a new organization. Students wishing to develop a new club should visit Campus Living and Learning for current recognition procedures.

Campus Living and Learning will support officially recognized student organizations by providing supplies, publicity materials, monetary and organizational assistance, and leadership training information. Requests for financial assistance should be directed to the office of Campus Living and Learning. A current list of clubs and teams can be obtained from the office of Campus Living and Learning.

Residential Living and Learning

Residence Hall Community Center, 307 637 2498

The LCCC student housing complex is a comfortable campus setting with easy access to classrooms, computer labs, a fully equipped physical education complex, and the campus dining hall. The Residence Hall Council and Residential Living and Learning staff provide activities, programs, and leadership opportunities to assist students in transition to LCCC, support their academic success, and facilitate the development of lifelong friendships. Students are encouraged to participate in these activities that are designed to provide a safe and enhanced experience in addition to the classroom experience.

New Student Orientation

Campus Living and Learning, 307 778 1182

Orientation programs welcome students and facilitate their transition into the college community. Orientation is scheduled prior to the first day of classes and provides new students an opportunity to learn about LCCC programs and services, meet faculty, and make friends with fellow new students.

International Student and Diversity Services

307 778 1221

The International Student Office offers services to assist international students on F-1 visas. Orientation, transitional services, academic and personal advising, and assistance with housing and issues with the United States Citizenship and Immigration Services (USCIS) are provided to international

Service Learning

307 778 1279

Service Learning combines classroom instruction with community service, focusing on critical, reflective thinking as well as personal and civic responsibility. Service Learning activities involve students in addressing local, community-identified needs while developing their academic skills and commitment to their community. Faculty utilize Service Learning in the classroom as a teaching/learning strategy. Members of recognized student organizations volunteer in the community to put their academic and leadership skills into action.

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Recognized Student Organizations

College Community Center, Room 140, 307 432 1630

Student organizations are recognized to enhance the educational, social, cultural, professional, spiritual, and/or recreational experiences of students. Recognized student organizations may be clubs or teams and are classified as instructional or student service organizations. Instructional clubs or teams are associated with, or are an extension of, a specific academic division or program. Students may join existing clubs or may choose to create a new organization. Students wishing to develop a new club should visit Campus Living and Learning for current recognition procedures.

Campus Living and Learning will support officially recognized student organizations by providing supplies, publicity materials, monetary and organizational assistance, and leadership training information. Requests for financial assistance should be directed to the office of Campus Living and Learning. A current list of clubs and teams can be obtained from the office of Campus Living and Learning.

Health Education

Residence Hall Office, Room 106C, 307 432 1631

All students should strive to maintain their optimum level of health and wellness in order to succeed in their educational pursuits. Health Education at LCCC supports the academic mission of the college by referring students to health services on campus and within the community and enabling students to make informed decisions about health-related concerns. Health Education involves and empowers students to be self-directed and well informed consumers of health care and wellness services. Utilizing confidential referrals and a peer education network, Health Education provides information and activities related to the health and wellness of contemporary community college students (for example, alcohol and drug education, nutrition and weight management, stress management, physical fitness, sexuality and sexual decision making).

Student Identification Cards

Campus Living and Learning, College Community Center, Room 138, 307 778 1108

LCCC students enrolled in credit classes are eligible and required to receive a photo student identification card. There is no charge for the initial card, however, a replacement fee will be assessed for lost or stolen cards. Cards will be validated each semester the student is enrolled in classes.

The student identification card entitles students to attend campus activities and events for discounted or free admission. The student identification card also enables students to use various college facilities such as the physical education complex and the student computer center.
Library Cards
Library cards may be obtained at the circulation desk in the Ludden Library or by completing an online form available on the library's web page. A library card is considered permanent. There is a $5 charge for the replacement of a lost or stolen card.

Veterans’ Information
Student Services Building, Financial Aid Office, 307.778.4396
Laramie County Community College is approved by the state of Wyoming for veterans’ training under the Montgomery G.I. Bill and for those training under Dependents’ Educational Assistance.

The Office of LCCC Veterans Affairs should be contacted as a one-stop center for VA educational benefits. Every effort will be made to assist veterans in all matters concerning class scheduling, VA certification, registration, academic and career education, and personal counseling. All questions concerning VA eligibility for educational benefits may be directed to this office. Additionally, the veteran may request assistance directly from the U.S. Department of Veterans Affairs Office, P. O. Box 66830, St. Louis, MO 63166, 1 888 442 4951.

Those applying for VA educational assistance will be provided with the most recent VA requirements concerning attendance and satisfactory academic progress.

Sponsor Charges Office
Student Services Building, Financial Aid Office, 307.432.1690
The Sponsor Charges Office assists businesses and agencies that sponsor education for their employees and clients. Such agencies/employers include the Wyoming National Guard, Army National Guard, Division of Vocational Rehabilitation, Wyoming Investment Act for Workforce Services, MYCAA (for spouses of military personnel), WCCC (overseas combat and Vietnam veterans), Wyoming Investment for Nursing Loan, AmeriCorps, Army Continuing Education, and Army Tuition Assistance.

Children’s Discovery Center
Arp Building, Room 146, 307.778.1303
The LCCC Children’s Discovery Center on the LCCC campus provides high-quality, affordable child care for students, staff and the community, offering a comprehensive preschool/child care program. Hours of operation are 6:30 a.m. to 5:30 p.m., Monday through Friday, excluding college holidays.

The full-day preschool program is for children 12 months to six years of age, the half-day preschool program is for children four to six years of age, and the part-time preschool program is for children three to five years of age and is based on requests and availability.

The primary goal of the Children’s Discovery Center is to meet the developmental needs of young children. Children who attend the Children’s Discovery Center receive an early childhood education specifically designed to enhance skill development in all areas of a child’s life: intellectual, social, emotional, creative and physical.

At the Children’s Discovery Center, children are actively involved as they learn about themselves and their world. The center’s curriculum provides a wide variety of enriching experiences that promote the development of a positive self-concept and help foster competencies throughout a lifetime. The LCCC Children’s Discovery Center is accredited by the National Association for the Education of Young Children (NAEYC).

Dining Hall
College Community Center, 307.778.1318
Food service is available to students from the dining hall. A variety of food options is available in a food court atmosphere.

Athletics
The LCCC Rodeo Team is a member of the National Intercollegiate Rodeo Association, and the LCCC Equestrian Show Team is a member of the International Horse Show Association. As a member of the National Junior College Athletic Association (NJCAA), LCCC has teams competing in men’s basketball, women’s volleyball, men’s soccer and women’s soccer. For more information, contact the athletics department at 307 778 1323.

Physical and Recreational Activities
Physical Education Building, 307 778 1315
Opportunities exist for a variety of physical activities in LCCC’s physical education complex. Recreational activities include racquetball, swimming, weight training, aerobics, rock climbing, basketball, volleyball and tennis.

Insurance
The college does not offer health or accident insurance to students. Local insurance agents may be contacted for individual coverage.

Financial Aid, Scholarships, and Student Employment
Student Services Building, 307 778 1215
Students attending LCCC receive nearly $13 million each year through scholarships, grants, student employment, loans, veterans benefits and agency payments. These funds are provided by the federal and state governments, LCCC, community organizations, and private donors.

The LCCC Student Financial Aid Guide contains a detailed description of the various financial aid programs, application deadlines and procedures, census dates, eligibility requirements, satisfactory academic progress standards, a list of student rights and responsibilities, and more. To obtain a financial aid packet, which includes a copy of the guide, students can complete the request card in the back of this catalog, call the Financial Aid Office or go to the LCCC website, www.lccc.wy.edu.
Degrees and Certificates
Laramie County Community College offers students three degrees and numerous certificates of completion:

- Associate of Arts Degree (A.A.)
- Associate of Science Degree (A.S.)
- Associate of Applied Science Degree (A.A.S.)
- Certificates of Completion in Career Programs

The Associate of Arts Degree (A.A.) and The Associate of Science Degree (A.S.)
These degrees are recommended to students who anticipate transferring to a four-year educational institution. The Associate of Arts degree is usually the preferable option for those majoring in humanities, social sciences and education areas. The Associate of Science is the preferable option for the sciences, agriculture, engineering, business and mathematics. Baccalaureate programs vary considerably, therefore, students are urged to obtain specific information regarding requirements of the transfer institution and the assistance of an LCCC advisor.

The Associate of Applied Science Degree (A.A.S.)
This degree is designed to prepare students for immediate employment in a skilled or paraprofessional occupation or to upgrade and stabilize current employment.

The A.A.S. degree typically can be transferred into a Bachelor of Applied Science (B.A.S.) degree at some colleges and universities. Courses within the A.A.S. degree programs may be accepted at a four-year college or university if the student is transferring into degrees other than the B.A.S. Students anticipating transfer are encouraged to consult with an advisor and carefully check the requirements of the institution and program into which they plan to transfer.

Assessment of Student Learning
Assessment of student learning is an integral and ongoing component in Laramie County Community College’s effort to continuously improve and strengthen itself so that the college may more effectively meet the needs of the learner. In addition, the assessment of student learning provides information used to determine if students are learning what we, as an institution, expect them to learn. The success of the student learning assessment process depends on the commitment of the administration, faculty, and staff to excellence in programming and services. Continuous assessment of student learning ensures that informed and professional choices are made to improve the learning experience and academic achievement of students.

The college assessments student learning in a variety of ways. Students will be asked to participate in assessment activities designed to measure achievement in their courses and programs of study and of general education core abilities. Students applying for graduation with an associate’s degree will complete an academic evaluation of their learning experience at LCCC.

Graduation Requirements

All Degrees:
1. Successfully complete a minimum of 64 semester hours with a grade point average of 2.0 or better at course level of 1000 or higher. (ENGL 1001 does not apply.)
2. Complete the general education degree requirements indicated below for the A.A., A.S., or A.A.S. degrees.
3. Meet the state statutory requirement for instruction in the constitutions of the United States and Wyoming by completing one of the following:
   - POLS 1000 - American and Wyoming Government (3 credit hours)
   - HIST 1211 - U.S. to 1865 (3 credit hours)
   - HIST 1221 - U.S. from 1865 (3 credit hours)
   - HIST 1251 - Wyoming History (3 credit hours)
   - ECON 1200 - Economics, Law, and Government (3 credit hours)

   Exception: Students who have earned credit for American Government or U.S. History at an out-of-state college or by advanced placement but have not fulfilled the Wyoming Constitution requirement may complete the one-credit hour POLS 1100 instead of one of the above courses.
4. Complete 15 semester hours from Laramie County Community College applied toward graduation.
5. Complete a designated academic evaluation to measure achievement of general education outcomes.
6. Obtain an advisor’s signature indicating that program requirements have been met before filing an application for graduation.
7. File a graduation application at the Student Records Office in the Student Services Building. A graduation fee of $30 to cover application and diploma expenses must accompany the application. A cap and gown fee is required to participate in graduation ceremonies. Students planning to graduate should consult the college calendar for the application deadline. If a student does not meet all the requirements for graduation and at a later date completes them, the student should reapply. The graduation fee will not be required for reapplication.

General Education
The general education component is defined as a set of knowledge, skills, and behaviors that are universal to all students and graduates of LCCC. The attainment of these skills and behaviors serves as a foundation for lifelong learning and the achievement of personal and professional goals.

General Education: Core Abilities for Student Learning
The general education component of all degrees and programs at Laramie County Community College is based on four primary core abilities, which are outlined below. The faculty members at LCCC, through the coordination of the Student Learning Assessment Committee, have agreed that every graduate of Laramie County Community College should
<table>
<thead>
<tr>
<th>GENERAL EDUCATION COMPONENT</th>
<th>ASSOCIATE OF ARTS DEGREE</th>
<th>Minimum credits required</th>
<th>ASSOCIATE OF SCIENCE DEGREE</th>
<th>Minimum credits required</th>
<th>ASSOCIATE OF APPLIED SCIENCE DEGREE</th>
<th>Minimum credits required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learn Responsibly</td>
<td>Core Courses</td>
<td></td>
<td>Core Courses</td>
<td></td>
<td>Core Courses</td>
<td></td>
</tr>
<tr>
<td>Students will learn responsibly by actively expanding their knowledge and skills. This includes: • Areas other than their major; • Formulating information needs; • Wellness and self-care.</td>
<td>L1 Computer Literacy See Page 26 for list.</td>
<td>1 credit</td>
<td>L1 Computer Literacy See Page 26 for list.</td>
<td>1 credit</td>
<td>L1 Computer Literacy See Page 26 for list.</td>
<td>1 credit</td>
</tr>
<tr>
<td></td>
<td>L2 Physical Education</td>
<td>1 credit</td>
<td>L2 Physical Education ONE PEAC “activity” course</td>
<td>1 credit</td>
<td>L2 Physical Education ONE PEAC “activity” course</td>
<td>1 credit</td>
</tr>
<tr>
<td>Communicate Effectively</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CE1 Written Communication ENGL 1010 and ENGL 1020</td>
<td>6 credits</td>
</tr>
<tr>
<td>Students will communicate through a variety of methods and media. This includes: • Written communication; • Oral communication; • Electronic communication.</td>
<td>CE2 Oral Communication CO/M 1010 or CO/M 1030</td>
<td>3 credits</td>
<td>CE2 Oral Communication CO/M 1010 or CO/M 1030</td>
<td>3 credits</td>
<td>CE2 Oral Communication CO/M 1010 or CO/M 1030</td>
<td>3 credits</td>
</tr>
<tr>
<td>Critically Think</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CT1 Quantitative Reasoning ONE MATH course from: MATH 1000 or higher, excluding MATH 1510</td>
<td>3 credits</td>
</tr>
<tr>
<td>Students will effectively utilize problem-solving strategies and creative methods. This includes: • Demonstrating self-awareness and reflective thinking.</td>
<td>CT2 Scientific Reasoning ONE physical, biological, or earth lab science course. See Page 25 for list.</td>
<td>4 credits</td>
<td>CT2 Scientific Reasoning ONE physical, biological, or earth lab science course. See Page 25 for list.</td>
<td>4 credits</td>
<td>CT2 Scientific/Technical Reasoning ONE physical, biological, or earth lab science course or technical course. See Page 25 for list.</td>
<td>3-4 credits</td>
</tr>
<tr>
<td>Collaborate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>C1 Wyoming Statutory Requirement (see graduation requirements above) ONE course from POLS 1000, HIST 1211, HIST 1221, HIST 1251, or ECON 1200</td>
<td>3 credits</td>
</tr>
<tr>
<td>Students will collaborate and build community with others by interacting in a diverse, complex, and global environment. This includes: • Displaying good citizenship; • Displaying civility and respect for others.</td>
<td>C2 Social Sciences TWO courses from AGEC 1010, AGEC 1020, AMST, ANTH, CRMJ, ECON, GEOG, HIST, LEGL, POLS, PSYC, SOC</td>
<td>6 credits</td>
<td>C2 Social Sciences ONE course from AGEC 1010, AGEC 1020, AMST, ANTH, CRMJ, ECON, GEOG, HIST, LEGL, POLS, PSYC, SOC</td>
<td>3 credits</td>
<td>C2 Social Sciences or Humanities ONE course from AGEC 1010, AGEC 1020, AMST, ANTH, CRMJ, ECON, GEOG, HIST, LEGL, POLS, PSYC, SOC-OR-ONE course from ART, ENGL (excludes ENGL 1010, 1020, 2005, 2030, and BADM 1020), Foreign Language, HUMAN, LIBS 2280, MMMM, MUSC, PHIL, RELI, SPPA, or THEA</td>
<td>3 credits</td>
</tr>
<tr>
<td></td>
<td>C3 Humanities TWO courses from two different disciplines in ART, ENGL (excludes ENGL 1010, 1020, 2005, 2030 and BADM 1020), Foreign Language, HUMAN, LIBS 2280, MMMM, MUSC, PHIL, RELI, SPPA, or THEA</td>
<td>6 credits</td>
<td>C3 Humanities ONE course from ART, ENGL (excludes ENGL 1010, 1020, 2005, 2030, and BADM 1020), Foreign Language, HUMAN, LIBS 2280, MMMM, MUSC, PHIL, RELI, SPPA, or THEA</td>
<td>3 credits</td>
<td>C3 Humanities ONE course from ART, ENGL (excludes ENGL 1010, 1020, 2005, 2030, and BADM 1020), Foreign Language, HUMAN, LIBS 2280, MMMM, MUSC, PHIL, RELI, SPPA, or THEA</td>
<td>3 credits</td>
</tr>
</tbody>
</table>
Key courses have been identified as core curriculum courses for the associate degrees offered at LCCC, and these have been correlated to each of the general education student learning core abilities by specific letter designations, as indicated by the parentheses below and the chart on the previous page. Although these courses are identified as core curriculum courses, one or more of the four core abilities are present to some degree in every course offered at LCCC. Therefore, each course a student enrolls in has a role in contributing to and ensuring that student’s success in meeting the institution’s goals for student learning.

Learn Responsibly (L) – Students will learn responsibly by actively expanding their knowledge and skills. This includes:
- Areas other than their major;
- Formulating information needs;
- Wellness and self-care.

Communicate Effectively (CE) – Students will communicate through a variety of methods and media. This includes:
- Written communication;
- Oral communication;
- Electronic communication.

Critically Think (CT) – Students will effectively utilize problem-solving strategies and creative methods. This includes:
- Demonstrating self-awareness and reflective thinking

Collaborate (C) – Students will collaborate and build community with others by interacting in a diverse, complex, and global environment. This includes:
- Displaying good citizenship
- Displaying civility & respect for others

Core Curriculum Requirements for the Associate Degree

The general education component and core curriculum are guided by Laramie County Community College’s student learning core abilities and are designed to be in alignment with Wyoming statutory requirements, Wyoming Community College Commission recommendations, and also with the accreditation criteria set forth by the Higher Learning Commission. The specific courses listed below are designed to fulfill general education categories for associate degree programs and are taken in conjunction with the specific course requirements for each program of study and degree completion requirements. **Individual programs of study require specific core courses from the list below, so students should contact their program advisors prior to registration to ensure the proper selection of courses for their desired majors. Students are advised that delays in graduation may result if they change their majors due to these specific course requirements.**

Area Requirements

The following courses can be used to meet the area requirements for specific degrees.

Students anticipating transfer are encouraged to consult with an advisor and carefully check the requirements of the institution and program into which they plan to transfer.

Social Sciences

Social sciences study the ways humans exist within economic, political, familial, psychological, geographical, historical, or social structures. This diverse thematic and systematic study of individuals and groups demonstrates the wide range of disciplines and methodologies used to analyze social problems and structures. Such courses also give considerable attention to the development and justification of conclusions and theories within the social disciplines.

The social science graduation requirement may be completed by successfully accumulating the required number of credit hours in the following academic areas.

- **Art**
- **English**
  - Humanities
  - Languages (Spanish, French, German, Greek, Japanese, Latin, Russian, American Sign Language)
  - LIBS 2280–Literature for Children
  - Mass Media/Multimedia (Journalism)
  - Music
  - Philosophy
  - Religious Studies
  - Theater

*ART 1510 does not apply.

**English 1001, 1010, 1020, 2005, 2030, and BADM 1020 do not apply.

Science

Science involves observing, formulating, and testing natural science concepts and the physical universe. The scientific process is used to better understand the nature of the universe through the systematic collection, analysis, and interpretation of data. The laboratory component will enhance and reinforce the scientific process.
The physical, biological, or earth lab science graduation requirement may be completed by successfully accumulating the required number of credit hours in the following subject areas or courses:

- **ASTR 1050—Survey of Astronomy** ........................................... 4 credits
- **AECL 1000—Agroecology** ...................................................... 4 credits
- **AECL 2010—The Ecological Web: Soils** .................................... 4 credits
- **AECL 2025—Ecological Web: Horticultural Science** .............. 4 credits
- **BIOI 1000—Principles of Biology** ...................................... 4 credits
- **BIOI 1003—Current Issues in Biology** .................................. 4 credits
- **BIOI 1010—General Biology** .............................................. 4 credits
- **BIOI 2022—Animal Biology** ............................................... 4 credits
- **BIOI 2023—Biology of Plants and Fungi** ............................ 4 credits
- **CHEM 1000—Introduction to Chemistry** ............................. 4 credits
- **CHEM 1020—General Chemistry I** ..................................... 5 credits
- **ENTK 1080—Principles of Technology** ................................. 4 credits
- **GEOG 1010—Introduction to Physical Geography** .............. 4 credits
- **GEOI 1020—General Chemistry I** .................................. 4 credits
- **GEOI 1200—Historical Geology** .................................... 4 credits
- **PHSI 1050—Concepts of Physics** .......................................... 4 credits
- **PHSI 1080—Principles of Technology** .................................. 4 credits
- **PHSI 1110—General Physics I** ........................................... 4 credits
- **PHSI 1310—College Physics I** ........................................... 4 credits
- **ZOO 2010—Anatomy and Physiology I** ................................ 4 credits
- **ZOO 2015—Human Anatomy** ............................................. 4 credits

### Technical

Technical courses are those that provide students with practical knowledge and skills, especially of a business, mechanical or scientific nature. Courses in the following career education areas that lead to an Associate of Applied Science degree or certificate qualify as meeting the technical category:

- Accounting
- Automotive Body Repair
- Automotive Technology
- Business Administration
- Business Office Technology
- Computer Information Systems
- Diesel Technology
- Electronics
- Engineering Science
- Engineering Technology
- Equine Studies
- Fire Science
- Health Technology
- Heating, Ventilation, and Air Conditioning
- Integrated Systems Technology
- Paralegal
- Safety and Environmental Health Technology
- Wind Energy

### Computer Literacy

Computer literacy enables individuals to use computers, software applications, and other technologies to achieve a wide variety of academic, work-related, and personal goals. Computer literacy includes understanding the underlying concepts of technology and applying problem solving and critical thinking skills to using technology.

The computer literacy requirement may be completed by successfully accumulating the required number of credit hours in the following courses:

- **ACCT 1050—Practical Accounting I** .................................. 3 credits
- **ACCT 2110—Microcomputer Accounting I** ......................... 2 credits
- **AGRI 1010—Computers: Agriculture** .................................. 3 credits
- **CMAP 1610—Windows I** ................................................... 1 credit
- **CMAP 1615—Operating Systems** ......................................... 3 credits
- **CMAP 1650—Introduction to Networking** ............................... 1 credit
- **CMAP 1700—Word Processing I** ....................................... 1-2 credits
- **CMAP 1730—Adobe Acrobat I** ........................................... 1 credit
- **CMAP 1750—Spreadsheet Applications I** ............................. 1 credit
- **CMAP 1800—Database Applications I** .................................. 1 credit
- **CMAP 1886—Microsoft Outlook** .......................................... 1 credit
- **CMAP 1920—Computer Hardware Maintenance** ................... 3 credits
- **CMAP 2471—PC Support Skills** .......................................... 1 credit
- **CMAP 2630—Presentation Graphics** ..................................... 1 credit
- **COSC 1010—Introduction to Computer Science I** ............... 4 credits
- **COSC 1200—Computer Information Systems** ...................... 3 credits
- **ENTK 2500—Computer-Aided Drafting I** ............................. 3 credits
- **ES 1060—Introduction to Engineering Computing** ................... 3 credits
- **GEOG 1015—Introduction to ArcGIS I** .................................. 1 credit
- **INET 1550—Introduction to the Internet** ............................... 1 credit
- **INET 1581—Web Page Authoring I** ..................................... 1 credit
- **ITEC 2360—Teaching with Technology** ................................ 3 credits
- **MMMM 1370—Publications Production I** ............................ 3 credits
- **MMMM 2222—Desktop Audio/Video Production** .................. 3 credits
- **MMMM 2310—Desktop Publishing** ....................................... 3 credits
- **MMMM 2325—Computer Graphics** ....................................... 3 credits
- **MMMM 2326—Interactive Media** .......................................... 3 credits
- **MMMM 2327—3D Computer Animation** ................................ 3 credits
- **MMMM 2410—Introduction to Multimedia** ............................. 3 credits
- **MMMM 2510—Presentation Graphics** .................................... 1 credit
- **CMAP 1615—Operating Systems** ......................................... 3 credits
- **CMAP 1700—Word Processing I** ....................................... 1-2 credits
- **CMAP 1730—Adobe Acrobat I** ........................................... 1 credit
- **CMAP 1750—Spreadsheet Applications I** ............................. 1 credit
- **CMAP 1800—Database Applications I** .................................. 1 credit
- **CMAP 1886—Microsoft Outlook** .......................................... 1 credit
- **CMAP 1920—Computer Hardware Maintenance** ................... 3 credits
- **CMAP 2471—PC Support Skills** .......................................... 1 credit
- **CMAP 2630—Presentation Graphics** ..................................... 1 credit
- **COSC 1010—Introduction to Computer Science I** ............... 4 credits
- **COSC 1200—Computer Information Systems** ...................... 3 credits
- **COSC 1225—Computer Graphics** ....................................... 3 credits
- **COSC 1226—Interactive Media** .......................................... 3 credits
- **COSC 2327—3D Computer Animation** ................................ 3 credits
- **COSC 2408—Digital Photography** ...................................... 3 credits
- **COSC 2410—Introduction to Multimedia** ............................. 3 credits
- **MSFT 2578—Networking Essentials** .................................... 4 credits
- **POLS 1005—Computer Applications in Political Science** ....... 1 credit

### Multiple Associate Degrees from LCCC

1. It is permissible for a student to earn more than one degree at LCCC.
2. A student may receive as many different degrees at graduation as he or she has earned at that point.
3. For each degree earned, a student must successfully complete a minimum of 15 additional credits from LCCC. A student may concurrently earn two degrees by achieving 30 hours from LCCC.
4. Students must complete the degree requirements for a second degree as listed in the current year's catalog.
5. A maximum of 49 semester hours of credit from the first degree may be applied toward the second degree.
6. Students must consult an advisor when planning a degree.

### Certificates of Completion

The certificate of completion is designed for occupational programs that specifically prepare students for immediate employment. General education courses are not required; however, general education concepts are integrated into certificate courses. Courses taken in the certificate program may apply toward an associate’s degree.

Students desiring to further their education are encouraged to submit their certificates, licenses or transcripts.
to the Student Records Office for evaluation. As many as 49 semester hours may be applied toward an Associate of Applied Science degree for previous technical training and experience.

Laramie County Community College cooperates with various public and private institutions so that transfer students may be granted the maximum possible number of credits for technical training. The additional courses needed to complete an Associate of Applied Science degree are taken from LCCC and are selected based upon published degree requirements and the advisor’s recommendations.

In those cases in which course work is transferred and applied toward certificates or licensure, students may be asked to demonstrate competency.

Certificate Requirements
Students should consult with an advisor regarding appropriate certificate requirements.

Requirements for the various certificates granted by Laramie County Community College in the career education programs are established by those areas. Students must complete the graduation application to receive the certificate.

Educational Guarantee
Laramie County Community College, as part of its commitment to quality instruction and continuous improvement, guarantees that students graduating from its career/technical programs with an Associate of Applied Science degree or certificate demonstrate competency in the skills represented in the degree or certificate.

Should the graduate not be able to demonstrate the skills expected by his or her employer, the graduate will be offered up to 12 credit hours of retraining (or equivalent continuing education) for a degree or nine credit hours of retraining (or equivalent continuing education) for a certificate, tuition and fees free of charge at LCCC.

Some conditions apply in order for retraining to be approved. Among them are these:
- 85 percent of the credit hours earned by the student must have been awarded by LCCC.
- A grade of C or better must have been earned in each course.
- The job must be full time.
- The initial date of full-time employment must be within one year of the student’s graduation date.

Online Degree Programs
All LCCC degrees and certificates are accredited, including online degrees and certificates, through the Higher Learning Commission of the North Central Association of Colleges and Schools. A variety of courses, certificates, and degrees is available online to assist students in meeting their educational goals. Students should discuss their educational plans with an advisor.

Programs

Career Education
Career education programs of study and training are designed to meet specific occupational requirements. A program of study may require that students take selected academic courses as well. Program completion qualifies students for a certificate and/or an Associate of Applied Science degree, or credit may be transferred to a bachelor’s degree in technical studies.

Options in Career Education:
1. Upon completion of the basic instructional program specified in the area of interest, a certificate of completion may be awarded.
2. Students together with their advisors will select additional course work in either career education or academic subjects or a combination of the two as determined by individual needs.
3. Cooperative Work Experience courses—students may enroll in course work on a part-time basis working on a job related to the students’ areas of interest. Students will receive credit for the supervised on-the-job training as well as the course work.
4. Students may also pursue an Associate of Applied Science degree in their major area of interest. Refer to degree requirements.

Tech-Prep
Laramie County Community College and Laramie County School Districts #1 and #2, Albany County School District #1, and related businesses have joined forces in Tech-Prep education. Tech-Prep education is a sequence of study beginning in high school and continuing through at least two years of postsecondary education. It prepares students for high-skill technical occupations, leading to direct entry into the workplace. Tech-Prep integrates academic and occupational subjects, including a competency-based technical curriculum designed jointly by business/labor, the school districts, and the college. The goals of Tech-Prep are to teach essential competencies without duplication or repetition and to prepare better-educated workers with advanced skills and the ability to transfer skills as technology changes.

High school students may earn college credit through verification of articulated outcomes in specified courses. Further information may be obtained from the Vice President of Instruction Office or the appropriate division dean.

LCCC offers an associate’s degree or one-year certificate in career areas that will be articulated with the secondary programs at Laramie County School District #1. The Tech-Prep programs provide a common core of basic proficiencies in mathematics, science, communications, and technologies designed to lead to an associate’s degree or certificate in a specific career field. At present, articulated programs/courses at LCCC providing technical preparation include the following areas: automotive technology, automotive body repair, principles of technology, early childhood education and computer information systems. Other programs such as agriculture, math and computer information systems are in the process of revision and articulation. Students should contact the Tech-Prep coordinator for further information.

Pathways to Success
This part of LCCC’s high school program is designed for high school students who might not be planning to attend college. This may include low-income students and/or first-generation
college students. Through this program, high school students participate in social activities, seminars, and summer workshops designed to help them prepare for college.

**LCCC/University of Wyoming Precollege Program**

LCCC offers Precollege courses on the University of Wyoming campus for both University of Wyoming and non-University of Wyoming students. The university in return offers select upper division courses for LCCC and University of Wyoming students.

**LCCC/University of Wyoming Off-Campus Bachelor's and Master's Programs**

Combining courses at LCCC with University of Wyoming courses delivered in Cheyenne, Cheyenne-based students can complete several bachelor's and master's degree programs as off-campus students. The University of Wyoming Southeast Regional Office is in the LCCC Career and Technical Building. Call 307 632 8949 for more information.

**General Education Articulation Agreement Between the University of Wyoming and the Wyoming Community Colleges**

This articulation agreement applies to graduates receiving an Associate of Arts or an Associate of Science degree from any of the seven Wyoming community colleges. All graduates with an A.A. or A.S. degree complete a minimum of 64 college-level credits with a minimum GPA of 2.0.

All Wyoming community college graduates (A.A. or A.S. degree) who have completed the prescribed 30-credit hour Wyoming Community College Common General Education Core, and in addition, a second three (3)-credit college-level math course, will be deemed to have met UW's lower division general education requirements.

All Wyoming community college graduates (A.A. or A.S. degree) who have completed the prescribed 30-credit hour community college core, but who lack the second three (3) credit college-level math course will be required to complete the second mathematics course either at the community college or at the University of Wyoming before they will be deemed to have met UW’s lower-division general education requirements.

Students should see their academic advisor for additional information.

**University of Wyoming/LCCC Articulation Agreements**

The UW/LCCC articulation agreements ensure that the academically successful student who selects and follows an articulated major can transfer to the University of Wyoming and complete the baccalaureate degree within the period of time that such a degree would normally be completed on the UW campus. Information about these offerings may be obtained from representatives of either institution.

**LCCC Articulation Agreements with Other Transfer Institutions**

Articulation agreements are in place with other transfer institutions for specific programs. Students wishing to transfer their programs of study should work closely with their advisors to ensure that courses in their chosen programs are aligned for maximum transferability.

**Lifelong Learning**

Rather than enrolling in a complete degree or certificate program, many students prefer to take selected courses that help them pursue individual, personal goals. For some, this means courses that will help them as employees or as business owner/operators. Others simply want to know more about their world, whether it’s government, psychology, literature, science, computers, automotive technology, physical fitness or art. Still others are exploring new career or educational directions or want to examine other approaches to living and learning. For all these diverse reasons and many more, LCCC has a wide variety of offerings and services available to interested students.

**Life Enrichment**

LCCC’s Life Enrichment program enhances peoples’ lives through lifelong learning opportunities. Life Enrichment classes help people to learn new skills that can be used on the job. In addition to learning new skills, Life Enrichment classes give people an opportunity to learn a new hobby, enhance existing skills, and socialize with others who have the same interests. People can learn from a variety of classes including quilting, swimming, rock climbing for kids, computer software programs, and dog training.

The Life Enrichment program serves a diverse array of students from senior citizens who want to learn computer skills to kids ages 5-13 during the S.E.E.K. (Summer Educational Experiences for Kids) program to teachers earning their required CEU credits.

**Facilities and Events**

The Facilities and Events office serves the campus and community by providing facility scheduling and facility rental to individuals and groups. Activities and events are scheduled in the Center for Conferences and Institutes, the Training Center, the Physical Education Building, the college arena, and other campus spaces. The Facilities and Events office coordinates with campus service areas to provide catering, audiovisual equipment, and event setup support to individuals and groups renting facilities at LCCC.

The Facilities and Events office can be reached at 307 778 1291 or 307 778 1322.

**Business Training and Development**

The Business Training and Development programs at LCCC help businesses meet performance, productivity, and profitability goals by providing employees with the customized training needed for organizational success.

Classes are designed to support all levels of organizations from the frontline worker to the executive management team. Classes are offered as open enrollment or can be customized to meet the specific needs of an organization.
Programs of Study

The following programs of study lead to an associate's degree or certificate, and faculty advisors are assigned to assist students in the completion of their educational goals.

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Agriculture ................................................................ 32
Agribusiness Technology ........................................ 32
Agriculture Production Technology ..................... 33
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Business Management ............................................... 39
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General Studies ............................................................. 57
General Studies in Business ............................................. 58
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**Online Certificate and Degree Programs**

Effective July 2005, the Higher Learning Commission of the North Central Association of Colleges and Schools granted approval for LCCC to offer degree programs online. It is recommended that the student make arrangements to meet with an advisor to develop an academic curriculum plan.

The following programs are currently available online:

<table>
<thead>
<tr>
<th>Program</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting (Associate of Applied Science</td>
<td>31</td>
</tr>
<tr>
<td>and Associate of Science</td>
<td></td>
</tr>
<tr>
<td>Business Management (Associate of Applied Science)</td>
<td>39</td>
</tr>
<tr>
<td>Cisco Certified Networking Associate (CCNA)</td>
<td>40</td>
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<tr>
<td>(Certificate)</td>
<td></td>
</tr>
<tr>
<td>Cisco Certified Networking Professional (CCNP)</td>
<td>41</td>
</tr>
<tr>
<td>(Certificate)</td>
<td></td>
</tr>
<tr>
<td>Computer Information Systems (Associate of Applied Science)</td>
<td>41</td>
</tr>
<tr>
<td>Computer Security (Certificate)</td>
<td>41</td>
</tr>
<tr>
<td>Computer Support Specialist (Certificate)</td>
<td>41</td>
</tr>
<tr>
<td>Computer Technician (Certificate)</td>
<td>41</td>
</tr>
<tr>
<td>Linux Systems (Certificate)</td>
<td>41</td>
</tr>
<tr>
<td>Office Application Specialist (Certificate)</td>
<td>42</td>
</tr>
<tr>
<td>Programmer (Certificate)</td>
<td>42</td>
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<tr>
<td>Web Design (Certificate)</td>
<td>42</td>
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<tr>
<td>General Studies (Associate of Arts)</td>
<td>57</td>
</tr>
<tr>
<td>General Studies in Business (Associate of Applied Science)</td>
<td>58</td>
</tr>
<tr>
<td>General Studies in Science/Health Science (Associate of Science)</td>
<td>59</td>
</tr>
<tr>
<td>General Studies in Social Sciences (Associate of Arts)</td>
<td>59</td>
</tr>
<tr>
<td>Government Studies</td>
<td>60</td>
</tr>
<tr>
<td>American and Comparative Government (Associate of Arts)</td>
<td>60</td>
</tr>
<tr>
<td>Public Policy and Administration (Associate of Arts)</td>
<td>60</td>
</tr>
<tr>
<td>Homeland Security (Associate of Science and Certificate)</td>
<td>63, 64</td>
</tr>
<tr>
<td>Psychology (Associate of Arts)</td>
<td>75</td>
</tr>
</tbody>
</table>
Accounting

**Associate of Science Degree**

The accounting curriculum leads to an Associate of Science degree in accounting and is designed for transfer to a bachelor of science program. Students should have aptitude for computational work and be willing to undertake the intensive study necessary for success. In addition to general study requirements, the curriculum provides for training in mathematics, business, and statistics, thus providing the student with a solid background in the basics.

Courses taken for satisfactory/unsatisfactory (S/U) grade shall not be applied toward degree requirements.

Students must have at least a 2.5 GPA to transfer to the University of Wyoming’s College of Business.

**First Year**

**FALL SEMESTER**

ACCT 2010 – Principles of Accounting I ........................................ 3
BADM 1000 – Introduction to Business ........................................ 3
COSC 1200 – Computer Information Systems ................................ 3
ECON 1200 – Economics, Law, and Government -OR-
POLS 1000 – American and Wyoming Government -OR-
HIST 1211 – U.S. to 1865 -OR-
HIST 1221 – U.S. from 1865 -OR-
HIST 1251 – Wyoming History ............................................. 3
ENGL 1010 – English I: Composition ..................................... 3
MATH 2350 – Pre-Calculus Algebra ........................................ 4

**SPRING SEMESTER**

ACCT 2020 – Principles of Accounting II .................................... 3
BUSN 2000 – International Business ........................................ 3
CO/M 1010 – Public Speaking ............................................... 3
ECON 1010 – Principles of Macroeconomics ............................. 3
ENGL 1020 – English II ...................................................... 3
MATH 2350 – Business Calculus I ......................................... 4

**Second Year**

**FALL SEMESTER**

ECON 1020 – Principles of Microeconomics ............................... 3
MTG 2100 – Principles of Management .................................. 3
ACCT 2450 – Cost Accounting ............................................. 3
MATH 2355 – Mathematical Applications for Business .............. 4
STAT 2010 – Statistical Concepts–Business ............................ 4

**SPRING SEMESTER**

IMGT 2400 – Introduction to Information Management .............. 3
Laboratory Science Elective ................................................. 4
Arts and Humanities Elective ............................................. 4
Physical Education Activity .................................................. 4
Advisor Approved Elective— choose two from the following list : 6


Total credit hours required ................................................... 68-69

**Associate of Applied Science Degree**

The Associate of Applied Science degree in accounting is designed to prepare a student for entry-level and supervisory careers in accounting in government or industry. This degree is not designed for transfer to a bachelor of science program.

Courses taken for satisfactory/unsatisfactory (S/U) grade shall not be applied toward degree requirements.

**First Year**

**FALL SEMESTER**

BADM 1000 – Introduction to Business .................................... 3
ACCT 2010 – Principles of Accounting I .................................. 3
ENGL 1010 – English I: Composition ..................................... 3
Math Elective – MATH 1000 or higher .................................... 3-4
COSC 1200 – Computer Information Systems ........................ 3
Physical Education Activity .................................................... 1

**SPRING SEMESTER**

ACCT 2020 – Principles of Accounting II .................................. 3
ACCT 2430 – Income Tax ..................................................... 3
BUSN 2000 – International Business ..................................... 3
ECON 1000 – Survey of Economics -OR-
ECON 1010 – Principles of Macroeconomics ........................... 3
CMAP 1750 – Spreadsheet Applications I................................. 1
CMAP 1755 – Spreadsheet Applications II ............................... 1
CMAP 1760 – Spreadsheet Applications III ............................. 1
MTG 2100 – Principles of Management .................................. 3

**Second Year**

**FALL SEMESTER**

ACCT 2450 – Cost Accounting ............................................... 3
ACCT 2460 – Payroll Accounting ............................................ 3
ACCT 2110 – Microcomputer Accounting I ............................. 2
ACCT 2120 – Microcomputer Accounting II ............................ 2
BADM 1031 – Personal Financial Planning ............................. 1
BADM 1032 – Risk and Credit Management ............................ 1
BADM 1033 – Investment/Retirement Planning ....................... 1
BADM 1020 – Business Communication ................................ 3

**SPRING SEMESTER**

CO/M 1010 – Public Speaking -OR-
CO/M 1030 – Interpersonal Communication ............................ 3
POLS 1000 – American and Wyoming Government -OR-
HIST 1211 – U.S. to 1865 -OR-
HIST 1221 – U.S. from 1865 -OR-
HIST 1251 – Wyoming History -OR-
ECON 1200 – Economics, Law, and Government ...................... 3
PSYC 1100 – Organizational Human Relations ........................ 3
IMGT 2400 – Introduction to Information Management .......... 3
Accounting or Business Elective (advisor approved) ............. 6

Total credit hours required ................................................... 68-69
Agriculture

This program of study leads to an Associate of Science degree and will transfer to four-year institutions. It is recommended that the student also follow the college or university bulletin from the intended transfer institution. The student can major in one of the following areas:

- Ag Business
- Animal and Veterinarian Science
- Ag Communications
- Farm and Ranch Management
- Ag Education
- General Agriculture
- Ag Extension
- International Ag Economics
- Agroecology
- Rangeland Ecology and Watershed Management

First Year

**FALL SEMESTER**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 – English I: Composition</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1400 – Pre-Calculus Algebra</td>
<td>4</td>
</tr>
<tr>
<td>AGEC 1010 – Agriculture Economics I</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 1010 – Livestock Production</td>
<td>4</td>
</tr>
<tr>
<td>AGRI 1010 – Computers: Agriculture</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education Activity</td>
<td>1</td>
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</tbody>
</table>

**SPRING SEMESTER**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGL 1020 – English II</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1010 – General Biology</td>
<td>4</td>
</tr>
<tr>
<td>AGEC 1020 – Agriculture Economics II</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education Activity</td>
<td>1</td>
</tr>
<tr>
<td>Agriculture Elective</td>
<td>6</td>
</tr>
</tbody>
</table>

Second Year

**FALL SEMESTER**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 2010 – Statistical Concepts-Business -OR-</td>
<td>3-4</td>
</tr>
<tr>
<td>STAT 2070 – Introductory Statistics for the Social Sciences -OR-</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2350 – Business Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>Arts and Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>Anthropology/Geography/History Elective</td>
<td>3</td>
</tr>
<tr>
<td>Agriculture Electives</td>
<td>6</td>
</tr>
</tbody>
</table>

**SPRING SEMESTER**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CROP 2000 – Plants, Agriculture and Civilization</td>
<td>4</td>
</tr>
<tr>
<td>POLS 1000 – American and Wyoming Government -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1211 – U.S. to 1865 -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1221 – U.S. from 1865 -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1251 – Wyoming History -OR-</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1200 – Economics, Law, and Government</td>
<td>3</td>
</tr>
<tr>
<td>CO/M 1010 – Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 2395 – Capstone Course for Agriculture Majors</td>
<td>3</td>
</tr>
<tr>
<td>Agriculture Electives</td>
<td>5</td>
</tr>
</tbody>
</table>

Total credit hours required ................................................... 69

Agribusiness Technology

This program of study leads to an Associate of Applied Science degree. Agribusiness includes all the agriculture-related occupations other than production agriculture and offers the widest range of employment possibilities. Students have a wide variety of electives to choose from to help develop an educational program tailored to their specific career objectives.

Student background and experience will be evaluated to determine the appropriate courses in order to customize the program, which should include an internship or on-the-job training experience. LCCC’s courses offer a wide range of training and educational opportunities.

First Year

**FALL SEMESTER**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ANSC 1010 – Livestock Production</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 1010 – English I: Composition</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 1010 – Agriculture Economics I</td>
<td>3</td>
</tr>
<tr>
<td>AGRI 1010 – Computers: Agriculture</td>
<td>3</td>
</tr>
<tr>
<td>AECL 2010 – The Ecological Web: Soils</td>
<td>4</td>
</tr>
<tr>
<td>Physical Education Activity</td>
<td>1</td>
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</table>

**SPRING SEMESTER**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>AGEC 1020 – Agriculture Economics II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1510 – Technical Mathematics I</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1000 – American and Wyoming Government -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1211 – U.S. to 1865 -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1221 – U.S. from 1865 -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1251 – Wyoming History -OR-</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1200 – Economics, Law, and Government</td>
<td>3</td>
</tr>
<tr>
<td>CO/M 1010 – Public Speaking</td>
<td>3</td>
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<tr>
<td>Animal Science or Agriculture Elective</td>
<td>3</td>
</tr>
<tr>
<td>Social Science Elective</td>
<td>3</td>
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</tbody>
</table>

Second Year

**FALL SEMESTER**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGEC 2010 – Farm-Ranch Business Records</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 2400 – Farm Credit and Finance</td>
<td>3</td>
</tr>
<tr>
<td>Accounting Elective</td>
<td>3</td>
</tr>
<tr>
<td>Agriculture Electives</td>
<td>4</td>
</tr>
<tr>
<td>Arts and Humanities Elective</td>
<td>3</td>
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</tbody>
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**SPRING SEMESTER**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGEC 2395 – Capstone Course for Agriculture Majors</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 2020 – Farm-Ranch Business Management</td>
<td>4</td>
</tr>
<tr>
<td>CROP 2000 – Plants, Agriculture and Civilization</td>
<td>4</td>
</tr>
<tr>
<td>AGEC 2500 – Agricultural Trade Policy</td>
<td>3</td>
</tr>
<tr>
<td>Agriculture Electives</td>
<td>3-4</td>
</tr>
</tbody>
</table>

Total credit hours required .................................................. 69-70
Agriculture Production Technology
This course of study is designed for the student who wants to return to or become employable on a farm or ranch. It will prepare the student for employment in the following areas: farm or ranch foreman or manager, herdsman, feedlot manager, or a job with an agriculture-related industry.

The student's background and experience will be evaluated to determine the exact courses that should be pursued in the development of a personal program for an Associate of Applied Science degree.

First Year
FALL SEMESTER
ANSC 1010 – Livestock Production ..................................... 4
AGEC 1010 – Agriculture Economics I ................................ 3
ENGL 1010 – English I: Composition ................................. 3
ANSC 1200 – Livestock Fitting and Showing ...................... 2
Arts and Humanities Elective ................................................. 3
AGRI 1010 – Computers: Agriculture .................................... 3
18

SPRING SEMESTER
Agriculture Electives ................................................................ 6
Social Science Elective ............................................................ 3
MATH 1510 – Technical Mathematics I ............................... 3
Physical Education Activity ..................................................... 1
16

Second Year
FALL SEMESTER
AECL 2010 – The Ecological Web: Soils ............................. 4
AGEC 2400 – Farm Credit and Finance ................................. 3
ANSC 1210 – Livestock Judging I ........................................... 2
ANSC 2320 – Livestock Health and Management .............. 3
AGEC 2010 – Farm and Ranch Business Records .............. 3
RGMG 2000 – Principles of Range Management .................. 3
18

SPRING SEMESTER
AGEC 2395 – Capstone Course for Agriculture Majors ...... 3
AGEC 2020 – Farm-Ranch Business Management .............. 4
AGEC 2500 – Agricultural Trade Policy ............................... 3
CROP 2000 – Plants, Agriculture and Civilization ............... 4
ANSC 2020 – Feeds and Feeding .............................................. 4
18

Total credit hours required ...................................................... 70

Rodeo Production Management Option
The rodeo production management option is designed to prepare students for a career as either an employee of a professional rodeo producer or to become self-employed as a rodeo producer or stock contractor. This program of study leads to an Associate of Applied Science degree.

First Year
FALL SEMESTER
AGEC 1010 – Agriculture Economics I ................................. 3
AGEC 2400 – Farm Credit and Finance ................................. 3
AGRI 1500 – Introduction to Rodeo ....................................... 2
ANSC 2320 – Livestock Health and Management .............. 3
ENGL 1010 – English I: Composition .................................... 3
*EQST 1725 – Rodeo Rough Stock I -OR- *EQST 1740 – Rodeo Timed Events I -OR- *EQST 1760 – Alternative Rodeo Timed Events I .............. 2
Physical Education Activity ..................................................... 1
17

SPRING SEMESTER
AGRI 1010 – Computers: Agriculture .................................... 3
AGRI 1510 – Rodeo Livestock ............................................ 2
CO/M 1030 – Interpersonal Communication ........................ 3
*EQST 1730 – Rodeo Rough Stock II -OR- *EQST 1750 – Rodeo Timed Events II -OR- *EQST 1765 – Alternative Rodeo Timed Events II .............. 2
MATH 1000 – Problem Solving -OR- MATH 1510 – Technical Mathematics I .............................................. 3
16

SUMMER SEMESTER
AGRI 2970 – Rodeo Production Management Internship .......... 3-9
3-9
Second Year

FALL SEMESTER
AGEC 2010 – Farm-Ranch Business Records ..................... 3
AGRI 2500 – Rodeo Production I .................................. 2
*EQST 2740 – Rodeo Rough Stock III -OR-
*EQST 2760 – Rodeo Timed Events III -OR-
*EQST 2730 – Alternative Rodeo Timed Events III .............. 2
HIST 1290 – History of the U.S. West ................................ 2
AECL 2010 – The Ecological Web: Soils ............................. 4
Approved Electives ...................................................... 1-4

SPRING SEMESTER
AGEC 2020 – Farm-Ranch Business Management ............ 4
AGEC 2395 – Capstone Course for Agriculture Majors ...... 3
AGRI 2510 – Rodeo Production II ...................................... 2
ANSC 2020 – Feeds and Feeding ......................................... 3
*EQST 2750 – Rodeo Rough Stock IV -OR-
*EQST 2770 – Rodeo Timed Events IV -OR-
*EQST 2735 – Alternative Rodeo Timed Events IV .............. 2
MKT 1300 – Advertising ..................................................... 3

Total credit hours required ...................................................67-76

APPROVED ELECTIVES
ANSC 1010 – Livestock Production ..................................... 4
ANSC 1100 – Artificial Insemination .................................. 2
BADM 1000 – Introduction to Business .............................. 3
BADM 2100 – Small Business Practices -AND- ..................... 3
BADM 2120 – Financing a Small Business ......................... 3
ENTR 1500 – Successful Entrepreneurship .......................... 2
ENTR 1510 – Analyzing Business Opportunities -AND- ......... 2
ENTR 1520 – Creating a Business Plan ............................... 2
ENTR 2540 – Small Business Financial Management .......... 2
EOST 2520 – Equine Breeding ............................................. 3
MGT 1000 – Introduction to Supervision ................................ 3
RGMG 2000 – Principles of Range Management .................... 3

* The following electives may be substituted for the competitive Rodeo Rough Stock or Rodeo Timed Events classes:
EOST 1710 – Basic Fundamentals in Cutting Horses .......... 2
EOST 1720 – Basic Roping .................................................... 2
EOST 2780 – Intermediate Team Roping ......................... 2

Anthropology

The Associate of Arts degree in anthropology is designed primarily for the student who plans to transfer to a four-year institution and pursue a Bachelor of Arts degree in anthropology. The program is designed around the requirements set by the University of Wyoming for a four-year degree in anthropology. Also, the program can help prepare the student in studies other than anthropology, including prelaw, premedicine, predentistry, library paraprofessional, administration of justice, and aging and human development.

A minimum of 64 credit hours is required for an Associate of Arts degree. The student should consult with an academic advisor to ensure that elective courses selected and courses in humanities, fine arts, and any of the sciences are appropriate and transferable. A foreign language is not required for the A.A. in anthropology, but anthropology majors should be aware that most four-year colleges, including the University of Wyoming, require at least eight hours of a foreign language for the B.A. degree.

GENERAL EDUCATION COURSES (31-33 CREDIT HOURS)
POLS 1000 – American and Wyoming Government -OR-
HIST 1211 – U.S. to 1865 -OR-
HIST 1221 – U.S. from 1865 -OR-
HIST 1251 – Wyoming History -OR-
ECON 1200 – Economics, Law, and Government ............... 3
ENGL 1010 – English I: Composition .................................. 3
ENGL 1020 – English II ..................................................... 3
CO/M 1010 – Public Speaking -OR-
CO/M 1030 – Interpersonal Communication ..................... 3
Arts and Humanities Electives (two courses from two different disciplines) ..................... 6
MATH 1000 – Problem Solving ........................................ 3
Lab Science (Physics, Biology, Chemistry, or Earth Science) ........................................... 4
Computer Literacy Elective ..................................................... 1-3
Physical Education Activity ..................................................... 1
STAT 2070 – Introductory Statistics for the Social Sciences ................. 4

ELECTIVES
Minimum of 17 hours ..................................................... 17

MAJOR CORE REQUIREMENTS
ANTH 1100 – Introduction to Biological Anthropology .......... 3
ANTH 1200 – Introduction to Cultural Anthropology .......... 3
ANTH 1300 – Introduction to Archaeology ......................... 3
ANTH 2210 – North American Indians ......................... 3
ANTH 2395 – Capstone Course for Anthropology Majors 1
Social Science Elective ..................................................... 3

Total credit hours required ...................................................64
**Art**

The major in art is intended to educate and assist students in a fundamental understanding of concepts, techniques and methods of form and content within works of art. The art major leads to an Associate of Arts degree and is designed for transfer to a four-year institution and/or for acceptance into art institutes devoted to the advancement of specific art skills.

Non-art majors may wish to study in this area for personal reasons or for application to other programs such as web page design, multimedia, and computer graphics.

**PROGRAM REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ART 1050</td>
<td>Beginning Drawing</td>
<td>3</td>
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<tr>
<td>ART 1060</td>
<td>Drawing II</td>
<td>3</td>
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<tr>
<td>ART 1110</td>
<td>Foundation: Two Dimensional</td>
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<tr>
<td></td>
<td>(Offered fall, even years)</td>
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<tr>
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<td></td>
<td>(Offered spring, odd years)</td>
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<tr>
<td>ART 2010</td>
<td>Art History I (Offered fall)</td>
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</tr>
<tr>
<td>ART 2020</td>
<td>Art History II (Offered spring)</td>
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</tr>
<tr>
<td>ART 2210</td>
<td>Beginning Painting</td>
<td>3</td>
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<tr>
<td>ART 2220</td>
<td>Painting II</td>
<td>3</td>
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<tr>
<td>ART 2310</td>
<td>Sculpture I</td>
<td>3</td>
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<tr>
<td>ART 2410</td>
<td>Ceramics I</td>
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**COLLEGE REQUIREMENTS**

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<td>Public Speaking -OR-</td>
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<td>Interpersonal Communication</td>
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<td>POLS 1000</td>
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<td>3</td>
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<td>HIST 1211</td>
<td>U.S. to 1865 -OR-</td>
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<td>HIST 1221</td>
<td>U.S. from 1865 -OR-</td>
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<td>Wyoming History -OR-</td>
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<td>Lab Science</td>
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<tr>
<td>Social Science Electives</td>
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</table>

**Total credit hours required** 66-67

Studio courses are now listed as levels I or II. Level II sections may be taken twice and will transfer as separate courses.

**Automotive Body Repair**

The automotive body repair program is designed to prepare the student for employment in the automotive repair business as well as to meet the needs of those who want to upgrade their skills or meet some personal objectives in auto body repair. The program leads to a nine-month certificate or an Associate of Applied Science degree.

The nine-month program is designed for full-time students, and the courses are offered in a sequence of blocks. Each block is three weeks in length. Classes are held from 9 a.m. to 3:30 p.m. Monday through Friday. The automotive body repair courses are designed to prepare students for the ASE certification exam.

**Nine-Month Certificate**

**FALL SEMESTER**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>3</td>
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<tr>
<td>AUBR 1540</td>
<td>Auto Body Welding</td>
<td>3</td>
</tr>
<tr>
<td>AUBR 1550</td>
<td>Auto Body Repair I</td>
<td>3</td>
</tr>
<tr>
<td>AUBR 1910</td>
<td>Auto Body Repair I (first 8 weeks)</td>
<td>3</td>
</tr>
<tr>
<td>AUBR 1920</td>
<td>Auto Body Repair II (second 8 weeks)</td>
<td>3</td>
</tr>
<tr>
<td>BADM 1021</td>
<td>Customer Service I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1510</td>
<td>Technical Mathematics I</td>
<td>3</td>
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**SPRING SEMESTER**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AUBR 1560</td>
<td>Auto Body Repair II</td>
<td>3</td>
</tr>
<tr>
<td>AUBR 1710</td>
<td>Frame and Chassis I (first 8 weeks)</td>
<td>3</td>
</tr>
<tr>
<td>AUBR 1720</td>
<td>Frame and Chassis II (second 8 weeks)</td>
<td>3</td>
</tr>
<tr>
<td>AUBR 1810</td>
<td>Collision Damage Repair I</td>
<td>3</td>
</tr>
<tr>
<td>AUBR 1930</td>
<td>Auto Paint III</td>
<td>3</td>
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<tr>
<td>MGT 1010</td>
<td>Employment Orientation I</td>
<td>1</td>
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<tr>
<td>Computer Literacy Elective</td>
<td>1-3</td>
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</tbody>
</table>

**Total credit hours required** 19-33

Studio courses are now listed as levels I or II. Level II sections may be taken twice and will transfer as separate courses.
**Associate of Applied Science Degree**

To earn an Associate of Applied Science degree in automotive body repair, students need to complete the following program of study. The automotive body repair program is designed to prepare the student for employment in the automotive repair business as well as to meet the needs of those who want to upgrade their skills or meet some personal objectives in auto body repair. The automotive body repair courses are designed to prepare students for the ASE certification exam.

**First Year**

**FALL SEMESTER**
- AUBR 1500 – Auto Body Hand/Hydraulic Tools ................. 3
- AUBR 1540 – Auto Body Welding ........................................ 3
- AUBR 1550 – Auto Body Repair I ......................................... 3
- AUBR 1910 – Auto Paint I (first 8 weeks) ............................ 3
- AUBR 1920 – Auto Paint II (second 8 weeks) ...................... 3
- BADM 1021 – Customer Service I ......................................... 1
- MATH 1510 – Technical Mathematics I ............................... 3

**SPRING SEMESTER**
- AUBR 1560 – Auto Body Repair II ........................................ 3
- AUBR 1710 – Frame and Chassis I....................................... 3
- AUBR 1720 – Frame and Chassis II ..................................... 3
- AUBR 1810 – Collision Damage Repair I ............................ 3
- AUBR 1930 – Auto Paint III .................................................. 3
- MGT 1010 – Employment Orientation I ............................ 1
- Computer Literacy Elective ..................................................... 1-3

**Second Year**

**FALL SEMESTER**
- Automotive Technology Elective ............................................ 3
- AUBR 1570 – Auto Body Repair III ......................................... 3
- ENGL 1010 – English I: Composition ................................. 3
- CO/M 1030 – Interpersonal Communication ........................... 3
- POLS 1000 – American and Wyoming Government -OR-
- HIST 1211 – U.S. to 1865 -OR-
- HIST 1221 – U.S. from 1865 -OR-
- HIST 1251 – Wyoming History -OR-
- ECON 1200 – Economics, Law, and Government .................. 3
- Physical Education Activity ..................................................... 1

**SPRING SEMESTER**
- AUBR 1580 – Auto Body Repair IV ......................................... 3
- AUBR 1820 – Collision Damage Repair II ............................ 3
- ENTK 1080 – Principles of Technology -OR-
- MGT 1000 – Introduction to Supervision .......................... 3-4
- ECON 1000 – Survey of Economics ........................................... 3

Total credit hours required ................................................... 64-67

**Automotive Technology**

The automotive technology program is designed to prepare students for employment in the automotive industry. The program also offers courses for those who want to upgrade their skills or meet some personal objective of learning about automotive technology.

The nine-month program is designed for full-time students, and the courses are offered in a sequence of blocks. The block varies from three to four weeks in length depending on the number of credits for each course. Classes are held from 9 a.m. to 3:30 p.m. Monday through Friday. The automotive technology courses are designed to prepare students for the ASE certification exam.

**Nine-Month Certificate**

**FALL SEMESTER**
- AUTO 1510 – Engine System Fundamentals ...................... 4
- AUTO 1600 – Fuel Systems I ............................................ 3
- AUTO 1765 – Automotive Electrical .................................. 4
- AUTO 2560 – Automotive Ignition Systems ........................ 3
- MATH 1510 – Technical Mathematics I ............................... 3
- BADM 1021 – Customer Service I ......................................... 1

**SPRING SEMESTER**
- AUTO 1690 – Manual Power Train Fundamentals .............. 3
- AUTO 1730 – Automatic Transmissions ............................... 4
- AUTO 1740 – Brake Systems ............................................. 3
- AUTO 1760 – Heating and Air Conditioning ........................ 3
- AUTO 2550 – Automotive Alignment and Suspension .......... 4
- Computer Literacy Elective ..................................................... 1-3
- MGT 1010 – Employment Orientation I ............................ 1

Total credit hours required ................................................... 64-67
Associate of Applied Science Degree

To earn an Associate of Applied Science degree in automotive technology, students need to complete the following program of study. The automotive technology program is designed to prepare students for employment in the automotive industry. The program also offers courses for those who want to upgrade their skills or meet some personal objective of learning about automotive technology. The automotive technology courses are designed to prepare students for the ASE certification exam.

First Year

FALL SEMESTER
AUTO 1510 – Engine System Fundamentals .......................... 4
AUTO 1600 – Fuel Systems I .................................................. 3
AUTO 1765 – Automotive Electrical ..................................... 4
AUTO 2560 – Automotive Ignition Systems ....................... 3
BADM 1021 – Customer Service I ..................................... 1
MATH 1510 – Technical Mathematics I ............................ 3

SPRING SEMESTER
AUTO 1690 – Manual Power Train Fundamentals ............... 3
AUTO 1730 – Automatic Transmissions ............................... 4
AUTO 1740 – Brake Systems .............................................. 3
AUTO 1760 – Heating and Air Conditioning .......................... 3
AUTO 2590 – Automotive Alignment and Suspension .......... 4
Computer Literacy Elective ............................................. 1-3
MGT 1010 – Employment Orientation I ............................ 1

18

Second Year

FALL SEMESTER
Automotive Technology Elective ....................................... 3
ENGL 1010 – English I: Composition .................................... 3
CO/M 1030 – Interpersonal Communication ......................... 3
POLS 1000 – American and Wyoming Government -OR- .... 3
HIST 1211 – U.S. to 1865 -OR- ............................................. 1
HIST 1212 – U.S. from 1865 -OR- .......................................... 1
ECON 1200 – Economics, Law, and Government ............... 3
Automotive Body Repair Elective ...................................... 3
Physical Education Activity ............................................ 3

19-21

SPRING SEMESTER
ENTK 1080 – Principles of Technology -OR- ...................... 3-4
MGT 1000 – Introduction to Supervision ............................. 3
ECON 1000 – Survey of Economics ................................... 3
Electives (approved by advisor) ..................................... 3-5

12-15

Total credit hours required ............................................. 65-70

Biology

Biology is a dynamic and rapidly changing field. Recent advancements in molecular and cellular biology have led to expanded employment opportunities for biological and life scientists. Students planning careers in biology, biochemistry, botany, forestry, microbiology, or zoology should complete this curriculum.

The successful completion of this program leads to an Associate of Science degree with anticipated transfer to a four-year program. The program plan provides flexibility for transfer. Students interested in the following professional fields may choose to follow the biology curriculum before transferring into medical-related professional programs such as dentistry, medicine, physical therapy, or veterinary medicine.

Please note: Students are strongly encouraged to meet with an advisor to determine courses that will transfer to the four-year college/program of their choice.

GENERAL EDUCATION CORE
Communication and Information Literacy
ENGL 1010 – English I: Composition .................................. 3
ENGL 1020 – English II ....................................................... 3
CO/M 1010 – Public Speaking -OR-
CO/M 1030 – Interpersonal Communication ...................... 3

Mathematics and Quantitative Reasoning
MATH 1450 – Pre-Calculus Algebra/Trigonometry ............ 5

(Students may substitute MATH 1400 and MATH 1405 for MATH 1450; however, it may set them behind in the program sequence)
STAT 2050 – Fundamentals of Statistics ......................... 4

Cultural, Historical, Political, and Social Development
POLS 1000 – American and Wyoming Government -OR-
HIST 1211 – U.S. to 1865 -OR-
HIST 1212 – U.S. from 1865 -OR-
HIST 1251 – Wyoming History -OR-
ECON 1200 – Economics, Law, and Government ............... 3
Social Science Elective ..................................................... 3
Arts and Humanities Elective ......................................... 3

Computer Literacy Elective ............................................. 1

Scientific and Technical Processes
BIOL 1010 – General Biology ........................................... 4

Physical Wellness .......................................................... 1

General College Electives (minimally one course)
Suggested:
ZOO 2010 – Anatomy and Physiology I ......................... 4
ZOO 2015 – Human Anatomy .......................................... 4
ZOO 2020 – Anatomy and Physiology II ....................... 4
ZOO 2025 – Human Physiology ....................................... 4
PHYS 1110 – General Physics I ....................................... 4
PHYS 1120 – General Physics II ..................................... 4
MATH 2200 – Calculus I ................................................. 5

MAJOR CORE COURSES:
BIOL 2022 – Animal Biology ........................................... 4
BIOL 2023 – Biology of Plants and Fungi .......................... 4
CHEM 1020 – General Chemistry I ................................ 5
CHEM 1030 – General Chemistry II ............................... 4
CHEM 2320 – Organic Chemistry I .................................. 3
CHEM 2325 – Organic Chemistry Lab I ............................ 1
CHEM 2340 – Organic Chemistry II .................................. 3
CHEM 2345 – Organic Chemistry Lab II ......................... 1
MOLB 2210 – General Microbiology -OR-
MOLB 2220 – Pathogenic Microbiology ......................... 4
**Preprofessional Option: Prepharmacy**

The following Associate of Science degree option is designed for students who are interested in the profession of pharmacy. Students are urged to study carefully the specific requirements of the institutions to which they plan to transfer. A written curriculum plan must be discussed in detail with an advisor. Based on student transfer needs, course substitutions are possible; however, the Associate of Science degree requirements must be met.

**First Year**

**FALL SEMESTER**

<table>
<thead>
<tr>
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<th>Course Name</th>
<th>Credits</th>
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<td>General Biology</td>
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<td>CHEM 1020</td>
<td>General Chemistry I</td>
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<td>ENGL 1010</td>
<td>English I - Composition</td>
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<tr>
<td>MATH 1450</td>
<td>Pre-Calculus Algebra/Trigonometry</td>
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<td>Computer Literacy Elective</td>
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**SPRING SEMESTER**

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<td>Animal Biology</td>
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<td>General Chemistry II</td>
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**Second Year**

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<td>Organic Chemistry Lab I</td>
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<tr>
<td>ZOO 2015</td>
<td>Human Anatomy</td>
<td>4</td>
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<td>ANTH 1100</td>
<td>Introduction to Biological Anthropology</td>
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<td>ANTH 1200</td>
<td>Introduction to Cultural Anthropology</td>
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<td>POLS 1000</td>
<td>American and Wyoming Government</td>
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<tr>
<td>HIST 1211</td>
<td>U.S. to 1865 - OR-</td>
<td>3</td>
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<td>HIST 1221</td>
<td>U.S. from 1865 - OR-</td>
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<td>HIST 1251</td>
<td>Wyoming History - OR-</td>
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<td>ECON 1200</td>
<td>Economics, Law, and Government</td>
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<td>MATH 1400</td>
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**SPRING SEMESTER**

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<td>MOLB 2220</td>
<td>Pathogenic Microbiology</td>
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<td>PHIL 1000</td>
<td>Introduction to Philosophy</td>
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<td>CO/M 1010</td>
<td>Public Speaking</td>
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<td>STAT 2050</td>
<td>Fundamentals of Statistics</td>
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**Total credit hours required** .......................................................... **68**

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**Business Administration**

The business administration major is designed for students who wish to prepare for a wide range of career options in business, industry, or government and for employees contemplating advancement to positions requiring some knowledge of organization and management. The curriculum as shown will lead to an Associate of Science degree in business administration, and courses transfer to four-year institutions, especially the University of Wyoming, for the Bachelor of Science degree.

Courses taken for a satisfactory/unsatisfactory (S/U) grade shall not be applied toward degree requirements.

Students must have at least a 2.5 GPA to transfer to the University of Wyoming’s College of Business.

**First Year**

**FALL SEMESTER**

<table>
<thead>
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<th>Course Name</th>
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<td>Principles of Accounting I</td>
<td>3</td>
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<tr>
<td>BADM 1000</td>
<td>Introduction to Business</td>
<td>3</td>
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<tr>
<td>COSC 1200</td>
<td>Computer Information Systems</td>
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<td>ECON 1200</td>
<td>Economics, Law, and Government - OR-</td>
<td>3</td>
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<tr>
<td>HIST 1211</td>
<td>U.S. to 1865 - OR-</td>
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<td>HIST 1221</td>
<td>U.S. from 1865 - OR-</td>
<td>3</td>
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<tr>
<td>HIST 1251</td>
<td>Wyoming History</td>
<td>3</td>
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<tr>
<td>ENGL 1010</td>
<td>English I - Composition</td>
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**SPRING SEMESTER**

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<tr>
<td>BUSN 2000</td>
<td>International Business</td>
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<tr>
<td>CO/M 1010</td>
<td>Public Speaking</td>
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<tr>
<td>ECON 1210</td>
<td>Principles of Macroeconomics</td>
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<tr>
<td>ENGL 1020</td>
<td>English II</td>
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<tr>
<td>MATH 2350</td>
<td>Business Calculus I</td>
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**Second Year**

**FALL SEMESTER**

<table>
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<td>ECON 1020</td>
<td>Principles of Microeconomics</td>
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<tr>
<td>MGT 2100</td>
<td>Principles of Management</td>
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<tr>
<td>MKT 2100</td>
<td>Principles of Marketing</td>
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<td>MATH 2355</td>
<td>Mathematical Applications for Business</td>
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<td>STAT 2100</td>
<td>Statistical Concepts-Business</td>
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**SPRING SEMESTER**

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<td>Introduction to Information Management</td>
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<tr>
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<td>(required minimum grade of “C” in this capstone course)</td>
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<tr>
<td>Arts and Humanities Elective</td>
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<tr>
<td>Laboratory Science Elective</td>
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<td>Advisor-Approved Electives—</td>
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<td>choose two from the following:</td>
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<tr>
<td>ACCT 2450</td>
<td>Cost Accounting</td>
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<tr>
<td>BADM 1010</td>
<td>Business Law</td>
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<tr>
<td>DSCI 2210</td>
<td>Production and Operations Management</td>
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<tr>
<td>FIN 2100</td>
<td>Managerial Finance</td>
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</table>

**Total credit hours required** .......................................................... **72**
**Business Management**

The business management program is designed to prepare students for supervisory and managerial careers in service-oriented businesses, government, and in technical industries. These two-year occupational programs combine academic study with work-related experience and lead to the Associate of Applied Science degree in business management. Courses taken for a satisfactory/unsatisfactory (S/U) grade shall not be applied toward degree requirements.

**First Year**

**FALL SEMESTER**
- MKT 1000 — Sales .................................................. 3
- COSC 1200 — Computer Information Systems ............... 3
- BADM 1000 — Introduction to Business .......................... 3
- BUSN 2000 — International Business ............................ 3
- ENGL 1010 — English I: Composition .......................... 3
- MATH 1400 — Pre-Calculus Algebra -OR- MATH 1000 — Problem Solving ........................................... 3-4

**SPRING SEMESTER**
- MKT 1300 — Advertising ........................................... 3
- BADM 1020 — Business Communication ........................ 3
- ECON 1000 — Survey of Economics .............................. 3
- BADM 1031 — Personal Financial Planning ..................... 1
- BADM 1032 — Risk and Credit Management .................... 1
- BADM 1033 — Investment/Retirement Planning ................. 1
- ACCT 2010 — Principles of Accounting I ......................... 3
- CO/M 1030 — Interpersonal Communication ..................... 3

**Second Year**

**FALL SEMESTER**
- MGT 2100 — Principles of Management .......................... 3
- ACCT 2020 — Principles of Accounting II ....................... 3
- MKT 2100 — Principles of Marketing .............................. 3
- PSYC 1100 — Organizational Human Relations ................. 3

Elective (advisor-approved elective—Accounting, Accounting Applications, Business Administration, Computer Applications, Computer Science, Economics, Entrepreneurship, Internet Technology, Management, Marketing) ................................................. 4-6

**SPRING SEMESTER**
- MGT 1200 — Human Resources Management .................... 3
- BADM 1980 — Cooperative Work Experience -OR- MGT 2475 — Management Internship .................................. 3-4
- BADM 2010 — Business Law I ....................................... 3
- POLS 1000 — American and Wyoming Government -OR- HIST 1211 — U.S. to 1865 -OR- HIST 1221 — U.S. from 1865 -OR- HIST 1251 — Wyoming History -OR-
- ECON 1200 — Economics, Law, and Government ............... 3
- IMGT 2400 — Introduction to Information Management ........ 3
- Physical Education Activity ........................................... 1

Total credit hours required ........................................... 68-72

**Second Year**

**FALL SEMESTER**
- CHEM 1020 — General Chemistry I ............................... 5
- MATH 1450 — Pre-Calculus Algebra/Trigonometry ............. 5
- ENGL 1010 — English I: Composition .......................... 3
- ES 1060 — Introduction to Engineering Computing .......... 3

**SPRING SEMESTER**
- CHEM 1030 — General Chemistry II .............................. 4
- MATH 2200 — Calculus I ............................................ 5
- ENGL 1020 — English II ............................................ 3
- BIOL 1010 — General Biology ..................................... 4
- Physical Education Activity ........................................... 1

Total credit hours required ........................................... 71

**Chemistry**

Chemists work for a variety of manufacturing and non-manufacturing industries. Almost two-thirds of all chemists work for manufacturing firms—about one-half of these are in the chemical manufacturing industry; the rest are employed throughout other manufacturing industries such as textiles, paper, petroleum, electronics, and food. Chemists also work for state and local governments in health and agriculture and for federal agencies, chiefly the Departments of Defense, Health and Human Resources, and Agriculture. Chemists also hold teaching and/or research positions in colleges, universities, and high schools.

Students planning careers as chemists should enjoy studying science and mathematics and should like working with their hands, building scientific apparatus, and performing experiments. Perseverance and ability to concentrate on detail and to work independently are essential. Other assets include an inquisitive mind and imagination.

Completion of the following curriculum will qualify the student for the Associate of Science degree.

These students unprepared to begin the calculus sequence upon entry at LCCC will determine their course of study in consultation with an advisor.

**First Year**

**FALL SEMESTER**
- CHEM 1020 — General Chemistry I ............................... 5
- MATH 1450 — Pre-Calculus Algebra/Trigonometry ............. 5
- ENGL 1010 — English I: Composition .......................... 3
- ES 1060 — Introduction to Engineering Computing .......... 3

**SPRING SEMESTER**
- CHEM 1030 — General Chemistry II .............................. 4
- MATH 2200 — Calculus I ............................................ 5
- ENGL 1020 — English II ............................................ 3
- BIOL 1010 — General Biology ..................................... 4
- Physical Education Activity ........................................... 1

Total credit hours required ........................................... 17

**Second Year**

**FALL SEMESTER**
- CHEM 2320 — Organic Chemistry I ............................... 3
- CHEM 2325 — Organic Chemistry Lab I .......................... 1
- MATH 2205 — Calculus II .......................................... 5
- PHYS 1310 — College Physics I .................................... 4
- CO/M 1010 — Public Speaking ..................................... 3
- HIST 1110 — Western Civilization I -OR- ANTH 1200 — Introduction to Cultural Anthropology ............. 3

**SPRING SEMESTER**
- CHEM 2340 — Organic Chemistry II .............................. 3
- CHEM 2345 — Organic Chemistry Lab II .......................... 1
- MATH 2210 — Calculus III ......................................... 5
- PHYS 1320 — College Physics II ................................... 4
- PHIL 1000 — Introduction to Philosophy -OR-
- MUSC 1000 — Introduction to Music ............................. 3
- POLS 1000 — American and Wyoming Government -OR-
- HIST 1211 — U.S. to 1865 -OR-
- HIST 1221 — U.S. from 1865 -OR-
- HIST 1251 — Wyoming History -OR-
- ECON 1200 — Economics, Law, and Government ............... 3

Total credit hours required ........................................... 19
Communication

The communication program of study prepares students to reach their potential as citizens, scholars, and professionals through the development of communication competence at both the theoretical and applied levels. The focus is on how people create messages to generate meanings within and across various contexts, cultures, and channels of communication. Debate and forensics are integral applied skills offered in the program. Courses are designed for student transfer to four-year institutions.

Nonspeech majors may wish to study in the communication area for self-improvement or for theoretical familiarity.

**PROGRAM REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CO/M 1010</td>
<td>Public Speaking</td>
<td>3</td>
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<tr>
<td>CO/M 1030</td>
<td>Interpersonal Communication</td>
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<tr>
<td>CO/M 1040</td>
<td>Introduction to Human Communication</td>
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<td>CO/M 2060</td>
<td>Forensics Practicum</td>
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<tr>
<td>CO/M 2120</td>
<td>Small Group Communication</td>
<td>3</td>
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</table>

**COLLEGE REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>Art, Music, Theater Elective</td>
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<td>ENGL 1010</td>
<td>English I: Composition</td>
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<td>English II</td>
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<td>ENGL 2030</td>
<td>Critical Reading and Writing -OR-</td>
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<td>BADM 1020</td>
<td>Business Communication</td>
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<td>Introductory Humanities II</td>
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<tr>
<td>POLS 1000</td>
<td>American and Wyoming Government -OR-</td>
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<td>HIST 1211</td>
<td>U.S. to 1865 -OR-</td>
<td>3</td>
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<td>HIST 1221</td>
<td>U.S. from 1865 -OR-</td>
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<tr>
<td>HIST 1251</td>
<td>Wyoming History -OR-</td>
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<td>ECON 1200</td>
<td>Economics, Law, and Government</td>
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<td>MMMM 1000</td>
<td>Introduction to Mass Media</td>
<td>3</td>
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<tr>
<td>History Elective</td>
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<td>MATH 1000</td>
<td>Problem Solving -OR-</td>
<td>3-4</td>
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<td>MATH 1400</td>
<td>Pre-Calculus Algebra</td>
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<td>PHIL 2301</td>
<td>Ethics</td>
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<td>Computer Literacy Elective</td>
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<tr>
<td>Lab Science</td>
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<tr>
<td>PSYC 1000</td>
<td>General Psychology</td>
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<tr>
<td>SOC 1000</td>
<td>Sociological Principles</td>
<td>3</td>
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</table>

Total credit hours required: 64-65

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Computer Information Systems

The computer information systems program is specifically designed to prepare students for entry-level positions in fields related to Information Technology. The options listed below offer flexibility in meeting students’ career needs. These courses of study lead to the Associate of Applied Science degree in Computer Information Systems. Various certificates are also offered.

**Associate of Applied Science**

**General Education Courses** (20 credit hours)

- **Course Code** | **Course Title** | **Credit Hours** |
- MATH 1400       | Pre-Calculus Algebra                              | 4            |
- ENGL 1010       | English I: Composition                            | 3            |
- POLS 1000       | American and Wyoming Government -OR-             | 3            |
- HIST 1211       | U.S. to 1865 -OR-                                | 3            |
- HIST 1221       | U.S. from 1865 -OR-                              | 3            |
- HIST 1251       | Wyoming History -OR-                             | 3            |
- ECON 1200       | Economics, Law, and Government                    | 3            |
- BADM 1010       | Public Speaking                                   | 3            |
- Physical Education Activity                            | 1            |
- ECON 1000       | Survey of Economics (or higher)                   | 3            |
- COST 1200       | Computer Information Systems                      | 3            |

**PROGRAM REQUIREMENTS**

**Core Courses** (10 credit hours)

- **Course Code** | **Course Title** | **Credit Hours** |
- BADM 1000       | Introduction to Business                           | 3            |
- COSC 1010       | Introduction to Computer Science I                 | 4            |
- IMGT 2400       | Introduction to Information Management             | 3            |

Areas of Specialization (34 credit hours)

Students must select courses from at least two of the following areas, for a minimum of 34 additional credit hours. All courses must be approved by a program advisor. (Certificate programs follow this list.)

**Business**

- Advisor-approved maximum of 6 credit hours in BADM, BUSN, MGT, ACCT

**Cisco Networking**

- Advisor-approved courses in the Cisco Networking Certificate

**Computer Security**

- Advisor-approved courses in the Computer Security Certificate

**Computer Support Specialist**

- Advisor-approved courses in the Computer Support Specialist Certificate

**Computer Technician**

- Advisor-approved courses in the Computer Technician Certificate

**Linux Systems**

- Advisor-approved courses in the Linux Systems Certificate

**Microsoft**

- Advisor-approved courses with an MSFT prefix

**Office Application Specialist**

- Advisor-approved courses in the Office Application Specialist Certificate

**Programmer**

- Advisor-approved courses in the Programmer Certificate

**Web Design**

- Advisor-approved courses in the Web Design Certificate
Computer Information System Certificates

Please note that courses within each certificate may have prerequisites. Be sure to check the course listings for these course prerequisites. All certificates can be applied to the Computer Information Systems Associate of Applied Science degree.

Cisco Certified Networking Associate (CCNA) Certificate

The Cisco Certified Networking Associate certificate is designed to provide students with the necessary skills in Cisco Networking Technology and to prepare the student to take the Cisco certification for CCNA.

CSCO 2010 – Introduction to Computer Science I .................. 3
CSCO 1200 – Computer Information Systems .................... 3
CSCO 2020 – Cisco: Advanced Internetworking I ................. 3
CSCO 2025 – Cisco: Advanced Internetworking III ............... 3
CSCO 2050 – CCNP I: Advanced Router Configuration .......... 3
CSCO 2060 – CCNP II: Building Remote Access Networks .... 3
CSCO 2070 – CCNP III: Multi-Layer Switched Networks ...... 3
CSCO 2080 – CCNP IV: Internetwork Troubleshooting .......... 3

Cisco Certified Networking Professional (CCNP) Certificate

The Cisco Certified Networking Professional certificate is designed to provide students with the necessary advanced skills in Cisco Networking Technology and to prepare the student to take the Cisco certification for CCNP.

Completion of the CCNA certificate courses (see above) .......... 25
CSCO 1010 – Introduction to Computer Science II .......... 4
CSCO 1200 – Computer Information Systems .................... 3
CSCO 2020 – Cisco: Advanced Internetworking I ................. 3
CSCO 2025 – Cisco: Advanced Internetworking III ............... 3
CSCO 2040 – Cisco: Internetworking I ............................... 3
CSCO 2010 – Cisco: Advanced Internetworking I ................. 3
CSCO 2020 – Cisco: Advanced Internetworking II ................. 3
CSCO 2025 – Cisco: Advanced Internetworking III ............... 3
CSCO 2030 – Cisco: Internetworking II ............................. 3
CSCO 2040 – Cisco: Internetworking III ........................... 3

Computer Security Certificate

The Computer Security certificate prepares students for entry-level employment related to computer security.

CMAP 1615 – Operating Systems ...................................... 3
CMAP 1920 – Computer Hardware Maintenance .................. 3
COSC 1200 – Computer Information Systems .................... 3
CMAP 1650 – Introduction to Networking ........................... 1
CSCO 2000 – Cisco: Internetworking I ............................... 3
CSEC 1500 – Network Core Fundamentals ........................... 3
CSEC 1510 – Network Defense Principles .......................... 3
CSEC 1520 – Network Attack Principles ............................ 3
CSEC 1530 – Computer Forensics .................................... 3

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Computer Support Specialist Certificate

The Computer Support Specialist certificate prepares students for entry-level positions at computer help desks and call centers. Students are prepared for industry certifications for Help Desk Analyst, Microsoft Office Specialist, and the CompTia A+ Certification Exam.

CMAP 1500 – Computer Keyboarding (or demonstrate keyboarding at 25 wpm) .......... 1
COSC 1200 – Computer Information Systems .................... 3
CMAP 1610 – Windows I ................................................. 1
CMAP 1650 – Introduction to Networking ........................... 1
CMAP 1700 – Word Processing I: Word ............................ 1
CMAP 1705 – Word Processing II: Word ............................ 1
CMAP 1710 – Word Processing III: Word ........................... 1
INET 1550 – Introduction to the Internet ........................... 1
CMAP 2630 – Presentation Graphics: Microsoft PowerPoint .... 1
CMAP 1615 – Operating Systems ...................................... 3
CMAP 1920 – Computer Hardware Maintenance .................. 3
CMAP 1750 – Spreadsheet Applications I: Excel ............... 1
CMAP 1755 – Spreadsheet Applications II: Excel ............... 1
CMAP 1760 – Spreadsheet Applications III: Excel ............... 1
CMAP 1800 – Database Applications I: Access ................. 1
CMAP 1805 – Database Applications II: Access ................. 1
CMAP 1810 – Database Applications III: Access ................. 1
CMAP 1886 – Microsoft Outlook ...................................... 1
CMAP 2471 – PC Support Skills ........................................ 1
CMAP 2472 – Advanced PC Support Skills ......................... 1
CMAP 2473 – PC Application Support Skills ....................... 1
CMAP or COSC Electives .................................................. 4

Linux Systems Certificate

The Linux Systems certificate provides students with a foundation of Linux systems and networks and prepares students for entry-level positions in systems and network administration. Students are prepared for the CompTia Linux+ and Linux Professional Institute (LPI) certification exams.

COSC 1200 – Computer Information Systems .................... 3
CMAP 1920 – Computer Hardware Maintenance .................. 3
CMAP 1615 – Operating Systems ...................................... 3
COSC 1010 – Introduction to Computer Science I ............... 4
CSCO 2000 – Cisco: Internetworking I ............................... 3
MSFT 2578 – Networking Essentials ................................. 4
LINX 2500 – Linux Administration I ................................. 4
LINX 2510 – Linux Administration II ................................. 4
LINX Electives .............................................................. 4

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Office Application Specialist Certificate

The Office Application Specialist certificate prepares students for entry-level positions utilizing the latest office software. Students are prepared for industry Microsoft Office Specialist certification.

- CMAP 1500 – Computer Keyboarding (or demonstrate keyboarding at 25 wpm) … 1
- CMAP 1610 – Windows I … 3
- CMAP 1650 – Introduction to Networking … 1
- CMAP 1700 – Word Processing I: Word … 1
- CMAP 1705 – Word Processing II: Word … 1
- CMAP 1710 – Word Processing III: Word … 1
- INET 1550 – Introduction to the Internet … 1
- CMAP 2630 – Presentation Graphics: Microsoft PowerPoint … 1
- CMAP 1750 – Spreadsheet Applications I: Excel … 1
- CMAP 1755 – Spreadsheet Applications II: Excel … 1
- CMAP 1800 – Database Applications I: Access … 1
- CMAP 1805 – Database Applications II: Access … 1
- CMAP 1865 – Microsoft Outlook … 1
- INET 1581 – Web Page Authoring I … 1
- COSC 1010 – Introduction to Computer Science I … 4
- COSC 1200 – Computer Information Systems … 3
- ENGL 1010 – English I: Composition … 5
- Physical Education Activity … 1

Programmer Certificate

The Programmer certificate is designed to provide students with the necessary skills for employment as an entry-level programmer. The programming courses must be advisor-approved.

- COSC 1010 – Introduction to Computer Science I … 4
- COSC 1200 – Computer Information Systems … 3
- ENGL 1020 – English II … 5
- ENGL 1020 – English II … 3

Web Design Certificate

The Web Design certificate is designed to provide students with the necessary skills for employment as an entry-level web designer. The INET and MMMM courses must be advisor-approved.

- COSC 1200 – Computer Information Systems … 3
- INET 1581 – Web Page Authoring I … 1
- INET 1582 – Web Page Authoring II … 1
- INET 1583 – Web Page Authoring III … 1
- INET 1584 – Web Development Tools … 3
- INET 2020 – Designing E-Commerce Web Sites -OR- INET 2620 – Designing Effective Web Sites … 3

Computer Science

Computer science is the study of computer hardware, software, and system architecture. It offers the student experience in creating computer programs, selecting appropriate languages and data structures; identifying capabilities and limitations of computer systems; and designing new languages, operating systems, and hardware components.

This program leads to an Associate of Science degree and is designed to satisfy the first two years of a Bachelor of Science in computer science at the University of Wyoming.

First Year

FALL SEMESTER
- COSC 1010 – Introduction to Computer Science I … 4
- COSC 1200 – Computer Information Systems … 3
- ENGL 1010 – English I: Composition … 5
- MATH 2200 – Calculus I … 3
- Physical Education Activity … 1

SPRING SEMESTER
- COSC 1030 – Computer Science I … 4
- MATH 2205 – Calculus II … 5
- ENGL 1020 – English II … 3

Second Year

FALL SEMESTER
- COSC 2030 – Computer Science II … 4
- MATH 2210 – Calculus III … 5
- Lab Science Elective (BIOL 1010, CHEM 1020, or PHYS 1310) … 4
- Foreign Language I … 4

SPRING SEMESTER
- CO/M 1010 – Public Speaking … 3
- Lab Science Elective (continuation of Biology, Chemistry, or Physics) … 4
- Foreign Language II … 4
- ECON 1010 – Principles of Macroeconomics … 3
- CMAP Programming Elective (advisor approved) … 3

Total credit hours required … 65
Computers and Business Option

An understanding of business fundamentals is essential for students planning a career in applied computer science in a business environment. This program of study provides a foundation in computer science, business, and information management. It includes courses in accounting, management, marketing, database fundamentals, and design and implementation of software systems.

This program leads to an Associate of Science degree and is designed to satisfy the first two years of a Bachelor of Science in Computer Science degree at the University of Wyoming.

First Year

**FALL SEMESTER**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<td>COSC 1010</td>
<td>Introduction to Computer Science I</td>
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<td>COSC 1200</td>
<td>Computer Information Systems</td>
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</tr>
<tr>
<td>ENGL 1010</td>
<td>English I: Composition</td>
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<tr>
<td>MATH 2200</td>
<td>Calculus I -OR-</td>
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<tr>
<td>MATH 2350</td>
<td>Business Calculus I</td>
<td>4-5</td>
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<td></td>
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**SPRING SEMESTER**

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<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>BADM 1000</td>
<td>Introduction to Business</td>
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<td>COSC 1030</td>
<td>Computer Science I</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 1020</td>
<td>English II</td>
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<td>MATH 2205</td>
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<td>MATH 2355</td>
<td>Mathematical Applications for Business</td>
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Second Year

**FALL SEMESTER**

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<th>Course</th>
<th>Title</th>
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<tr>
<td>ACCT 2010</td>
<td>Principles of Accounting I</td>
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<tr>
<td>COSC 2030</td>
<td>Computer Science II</td>
<td>4</td>
</tr>
<tr>
<td>ECON 1010</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>Lab Science Elective (BIOL 1010, CHEM 1020, or PHYS 1310)</td>
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<tr>
<td>STAT 2010</td>
<td>Statistical Concepts–Business</td>
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**SPRING SEMESTER**

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<tr>
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<tr>
<td>ACCT 2020</td>
<td>Principles of Accounting II</td>
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<tr>
<td>CO/M 1010</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1200</td>
<td>Economics, Law, and Government -OR-</td>
<td></td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American and Wyoming Government -OR-</td>
<td></td>
</tr>
<tr>
<td>HIST 1211</td>
<td>U.S. to 1865 -OR-</td>
<td></td>
</tr>
<tr>
<td>HIST 1221</td>
<td>U.S. from 1865 -OR-</td>
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</tr>
<tr>
<td>HIST 1251</td>
<td>Wyoming History</td>
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<td>IMGT 2400</td>
<td>Introduction to Information Management</td>
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</table>

Total credit hours required .................................................................. 66-68

Criminal Justice

The three Associate of Arts degree majors—law enforcement, corrections, and prelaw—assist students in preparing for careers in criminal justice. Specialization in a major begins in the second year of study. There is a broad range of courses allowing the second-year student wide latitude in career planning.

Students are urged to obtain specific information regarding the requirements and recommendations of the institution to which they plan to transfer if they will be seeking a bachelor's degree.

For degree requirements, refer to Page 25.

A minimum of 64 credit hours is required for each of these three specialties, including the courses listed below.

The goal of the criminal justice program is to graduate students who will be assertive, bold, ethical, and positive practitioners in the future, guided by balance, self-control, common sense, curiosity, sensitivity, education, and open, effective communication skills.

The foundation for these practitioners will be their integrity, desire to seek continued personal growth as a criminal justice employee and citizen, and ability to work cooperatively and loyally with cohorts, subordinates, superiors, and the public.

Graduates should be prepared to offer leadership services to the community in return for the community's invested trust in them as criminal justice employees.

First-year courses for law enforcement, corrections, and prelaw include:

First Year

<table>
<thead>
<tr>
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<tr>
<td>CRMJ 2120</td>
<td>Introduction to Criminal Justice</td>
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<td>CRMJ 2210</td>
<td>Criminal Law I</td>
<td>3</td>
</tr>
<tr>
<td>CRMJ 2350</td>
<td>Introduction to Corrections</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American and Wyoming Government</td>
<td>3</td>
</tr>
<tr>
<td>COSC 1200</td>
<td>Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1010</td>
<td>English I: Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1020</td>
<td>English II</td>
<td>3</td>
</tr>
<tr>
<td>CO/M 1030</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1000</td>
<td>Problem Solving -OR-</td>
<td></td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Pre-Calculus Algebra</td>
<td>3-4</td>
</tr>
<tr>
<td>SOC 1000</td>
<td>Sociological Principles</td>
<td>3</td>
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<td></td>
<td><strong>Total</strong></td>
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</table>
Corrections
This criminal justice major is designed to prepare the student for a bachelor's degree and for careers such as juvenile officer, parole agent, adult probation officer, state and federal corrections officer, institutional counselor, and halfway house counselor.

Second Year
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
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<td>Criminal Law II</td>
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<td>CRMJ 2420</td>
<td>Juvenile Justice</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2210</td>
<td>Drugs and Behavior</td>
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</tr>
<tr>
<td>CRMJ 2400/SOC 2400</td>
<td>Criminology</td>
<td>3</td>
</tr>
<tr>
<td>CRMJ 2380</td>
<td>Probation and Parole</td>
<td>3</td>
</tr>
<tr>
<td>CRMJ 2370</td>
<td>Correctional Institutions</td>
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<td>Elective</td>
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<tr>
<td>PSYC 1000</td>
<td>General Psychology</td>
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<tr>
<td>Arts and Humanities* (Language preferred)</td>
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<td>6-7</td>
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<tr>
<td>Lab Science (Physical, Biological, or Earth)</td>
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<tr>
<td><strong>Program Total</strong></td>
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<td><strong>35-36</strong></td>
</tr>
</tbody>
</table>

*Must be in two different disciplines.

Law Enforcement
This program of study may lead to employment as a municipal police officer, deputy sheriff, federal enforcement officer, or private or public security officer.

Good character and physical condition as well as minimum-maximum age limits are required by most employing law enforcement agencies. Employment trends also suggest that agencies are giving preference to those with higher levels of college education. Attendance at a training academy is required to become a law enforcement officer.

Second Year
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRMJ 2220</td>
<td>Criminal Law II</td>
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</tr>
<tr>
<td>CRMJ 2420</td>
<td>Juvenile Justice</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2210</td>
<td>Drugs and Behavior</td>
<td>3</td>
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<tr>
<td>CRMJ 2400/SOC 2400</td>
<td>Criminology</td>
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</tr>
<tr>
<td>CRMJ 2380</td>
<td>Probation and Parole</td>
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</tr>
<tr>
<td>CRMJ 1310</td>
<td>Criminal Investigation I</td>
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<tr>
<td>CRMJ 1320</td>
<td>Criminal Investigation II</td>
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<tr>
<td>CRMJ 2420</td>
<td>Juvenile Justice</td>
<td>3</td>
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<tr>
<td>PSYC 2210</td>
<td>Drugs and Behavior</td>
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<tr>
<td>PSYC 1000</td>
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<td>Lab Science (Physical, Biological, or Earth)</td>
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<td><strong>Program Total</strong></td>
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<td><strong>32-33</strong></td>
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</table>

*Must be in two different disciplines.

Prelaw
Criminal justice study at the bachelor's degree level is a popular base for prelaw students and provides a thorough understanding of the system they may be practicing in during their careers.

Students in prelaw should select a broad base of courses at the undergraduate level. The practice of law normally requires a bachelor's degree, three years in graduate law school, and successful completion of the bar exam of the jurisdiction in which the law school graduate wishes to practice.

Second Year
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRMJ 2220</td>
<td>Criminal Law II</td>
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<td>CRMJ 2420</td>
<td>Juvenile Justice</td>
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<td>PSYC 2210</td>
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<td>CRMJ 2380</td>
<td>Probation and Parole</td>
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<td><strong>Program Total</strong></td>
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<td><strong>64-65</strong></td>
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</tbody>
</table>

*Must be in two different disciplines.
Customer Service

The customer service certificate program curriculum is designed to provide a student with basic skills in communication and business. Upon completion of the program, a graduate may find employment as a customer service representative with a profit-making organization or a similar career with an organization that serves the public.

Nine-Month Certificate

FIRST SEMESTER
- BADM 1021 – Customer Service I ........................................ 1
- ENGL 0700 – Fundamentals of English .................................. 3
- INET 1550 – Introduction to the Internet .................................. 1
- MGT 1010 – Employment Orientation I .................................... 1
- BADM 1000 – Introduction to Business .................................... 3
- CMAP 1500 – Computer Keyboarding* .................................... 1
- CMAP 1610 – Windows I .......................................................... 1
- CO/M 1030 – Interpersonal Communication -OR- ..... 3
- CO/M 1010 – Public Speaking .............................................. 3
- Advisor-Approved Electives ....................................................... 3

SECOND SEMESTER
- BADM 1022 – Customer Service II ........................................ 1
- BADM 1020 – Business Communication .................................... 3
- MKT 1000 – Sales -OR- ............................................................ 3
- COSC 1200 – Computer Information Systems ....................... 3
- Advisor-Approved Electives ....................................................... 3

Total credit hours required ......................................................... 34

* If a student has keyboarding skills at 25 words a minute, another approved elective will be substituted for this elective.

Dental Hygiene

The dental hygienist is a preventive oral care professional licensed to provide educational, clinical, and therapeutic dental hygiene services to the public. This unique 16-month program combines academic study with supervised clinical experience. Graduates of the program receive the Associate of Applied Science degree and are eligible to take the appropriate national, regional, and/or state examinations. Applicants are encouraged to contact the state boards of dentistry in the states in which they wish to practice for individual licensing requirements and circumstances for licensure denial.

The LCCC dental hygiene program is accredited by the Commission on Dental Accreditation. The Commission is a specialized accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at 312.440.4653 or at 211 East Chicago Avenue, Chicago, Illinois 60611.

The dental hygiene program is a vigorous study of advanced science classes offered in an accelerated format. General education and basic science courses are essential to prepare students to succeed. Therefore, applicants are required to complete predental hygiene course requirements. Each prerequisite course must be completed with a grade of “C” or higher. Completion of the prerequisite coursework does not guarantee admission into the dental hygiene program. Additionally, LCCC’s academic skills assessment and placement policy apply.

PREREQUISITE COURSES

- ENGL 1010 – English I: Composition ....................................... 3
- MATH 1000 – Problem Solving (or higher) .............................. 3
- SOC 1000 – Sociological Principles* ....................................... 3
- PSYC 1000 – General Psychology .......................................... 4
- CO/M 1030 – Interpersonal Communication* ......................... 3
- CHEM 1000 – Introductory Chemistry .................................... 4

EITHER:
- ZOO 2010 – Anatomy and Physiology* I -AND- ...................... 4
- ZOO 2020 – Anatomy and Physiology* II ............................... 4

OR:
- ZOO 2015 – Human Anatomy* -AND- ............................... 4
- ZOO 2025 – Human Physiology* (Students must complete one 8-credit sequence. Taking one course from each sequence will NOT fulfill this requirement) 4
- MOLB 2220 – Pathogenic Microbiology* ................................. 4
- HOEC 1140 – Nutrition .......................................................... 2
- Physical Education Activity .................................................... 1
- CMAP 1685 – Using Computers In: Healthcare -OR- \( \text{other approved} \) 1
- POLS 1000 – American and Wyoming Government (optional prerequisite, required program course)**

1 May substitute ANTH 1200 – Cultural Anthropology
2 May substitute CO/M 1010 – Public Speaking
3 Please see advisor
* Must be five years current
** Students who have not completed POLS 1000 or its equivalent within the state of Wyoming, POLS 1100 must be completed in addition to an acceptable American government course. Although POLS 1000 is an optional prerequisite, if this is not completed prior to starting the program, it will be an additional course that is required during the program. It is highly recommended that the student complete this course prior to beginning the dental hygiene program.

APPLICATION TO THE DENTAL HYGIENE PROGRAM

A student interested in applying to the dental hygiene program may contact the Dental Hygiene Program Director or the Admissions Office for specific procedures, which must be completed prior to application in August and admission in January. Because the dental hygiene program receives more
applications than available student spaces, it is necessary to employ strict selection procedures so that those applicants who are deemed best qualified to succeed may be selected. Selection of new students is based on a student’s grade point average, prerequisites completed, the date of receipt of application, and other criteria as noted on the program application materials.

Dental health professionals may be exposed to contagious diseases, therefore, strict compliance with Centers of Disease Control (CDC) and OSHA standards are maintained. Although diseases may be encountered, research indicates that risks are negligible when optimal infection control is practiced. Policies on blood borne and infectious disease are available upon request from the Dental Hygiene Program. Documentation of beginning the Hepatitis B vaccine series is required by November 15. Students should contact a health care provider for information about this vaccine and other immunization requirements.

LCCC does not discriminate on the basis of race, color, national origin, sex, age, or disability in admission or access to, or treatment or employment in, its educational programs or activities.

Applicants must obtain an information packet that outlines the dental hygiene academic calendar, program costs, Health Care Provider CPR requirement, blood borne pathogens, immunization, criminal background check and chemical impairment policies, and estimated student expenses that are specific to the Dental Hygiene Program. These packets can be obtained from the Dental Hygiene Director, the Dental Hygiene Office, the dental hygiene homepage at www.lccc.wy.edu or from the LCCC Admissions Office. It is the applicant’s responsibility to seek current information and to see that her/his file is complete.

**Developmental Studies**

Developmental studies courses are designed to provide basic skills in reading, writing, and computation for personal benefit, employability, and/or transition to higher level courses. The courses are presented in a manner so as to develop student self-confidence and self-esteem. Most developmental studies credits do not transfer to four-year institutions. Individual program suggestions may or may not include developmental studies credits.

<table>
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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>DVST 0710</td>
<td>Vocabulary Building</td>
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<tr>
<td>DVST 0810</td>
<td>Spelling Improvement</td>
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</tr>
<tr>
<td>DVST 0890</td>
<td>Basic Skills Development</td>
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<td>DVST 0898</td>
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<td>DVST 0899</td>
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**TERM 1**

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<td>DHYG 1150</td>
<td>Preventive Dentistry</td>
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<td>DHYG 1410</td>
<td>Dental Hygiene Principles</td>
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<tr>
<td>DHYG 2450</td>
<td>Dental Radiology</td>
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**TERM 2**

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<td>DHYG 1310</td>
<td>Periodontology I</td>
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<td>DHYG 1420</td>
<td>Dental Hygiene Seminar I</td>
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<tr>
<td>DHYG 1425</td>
<td>Dental Hygiene Clinic I</td>
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<td>DHYG 2400</td>
<td>Head, Neck and Oral Anatomy</td>
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<tr>
<td>DHYG 2460</td>
<td>Dental Materials</td>
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**TERM 3**

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<td>General and Oral Pathology</td>
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<td>DHYG 2250</td>
<td>Pain Management</td>
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<td>DHYG 2330</td>
<td>Periodontology II</td>
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<tr>
<td>DHYG 2430</td>
<td>Dental Hygiene Seminar II</td>
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<td>DHYG 2435</td>
<td>Dental Hygiene Clinic II</td>
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<tr>
<td>DHYG 2451</td>
<td>Dental Radiology Interpretation</td>
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**TERM 4**

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<th>Course Title</th>
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<tbody>
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<td>DHYG 2260</td>
<td>Dental Public Health</td>
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<tr>
<td>DHYG 2410</td>
<td>Practice Management</td>
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</tr>
<tr>
<td>DHYG 2440</td>
<td>Dental Hygiene Seminar III</td>
<td>2</td>
</tr>
<tr>
<td>DHYG 2445</td>
<td>Dental Hygiene Clinic III</td>
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<tr>
<td>POLS 1000</td>
<td>American and Wyoming Government*</td>
<td>3</td>
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</table>

* May substitute with one of the following:
  - HIST 1211 – U.S. to 1865 -OR-
  - HIST 1221 – U.S. from 1865 -OR-
  - HIST 1251 – Wyoming History -OR-
  - ECON 1200 – Economics, Law, and Government

** Students who have not completed POLS 1000 prior to starting the program are required to complete the course or its equivalent no later than the end of Term 4 in order to graduate.
**Diagnostic Medical Sonography**

Diagnostic Medical Sonography (DMS) is a diagnostic procedure that uses high frequency sound waves to create detailed images of the human body. Sonographers use state-of-the-art technology to scan patients and obtain images of the abdomen, heart, blood vessels, and fetus to aid in the diagnosis of a disease. Sonography is a profession that requires a high degree of independence, judgment, knowledge, maturity, and stamina.

The diagnostic medical sonographer is a skilled person qualified academically and clinically to perform ultrasound exams while working closely with a qualified physician. To create an ultrasound image, the sonographer must have an in-depth knowledge of physics, disease processes, human anatomy, and sonographic technique. Physicians depend on the sonographer's knowledge to evaluate normal and abnormal body parts.

This program leads to an Associate of Applied Science degree in diagnostic medical sonography and is an intensive, six-semester program designed for individuals new to patient care. The last two semesters of the program are primarily clinical experience, and students may be placed in various hospitals and/or clinics in Wyoming, Colorado, Nebraska, or beyond. The program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) and the Joint Review Committee on Education in Diagnostic Medical Sonography (IRCDMS).

The program has limited enrollments and admits one class each summer. Prerequisite courses listed below must be completed or in progress prior to application for program admission. Prospective students interested in the program may contact the program director for details about the program admission process and timeline. Additional information also is available on the program website at www.lccc.wy.edu/sonography.

**DRUG SCREENING AND CRIMINAL BACKGROUND CHECKS**

At their discretion, clinical sites may require a drug screening and/or a criminal background check prior to allowing students into the clinical setting. (If required, any associated fees will be the responsibility of the student.) Clinical sites may also require random drug testing and/or drug testing for reasonable cause. Testing positive on the drug screening or evidence of tampering with a specimen will disqualify a student from clinical participation.

In addition to drug screening, for the safety of patients and health care workers, child abuse clearance and criminal background checks are required by some agencies prior to a clinical assignment. Certain criminal activity, as evidenced by a criminal background check, may also disqualify a student from clinical participation.

Students are advised that the inability to gain clinical education experiences can result in the inability to meet program objectives and outcomes. These circumstances may prevent acceptance into and/or continuance in the program.

**PROGRAM PREREQUISITES:**

**EITHER**
- ZOO 2010 – Anatomy and Physiology I* -AND- 4
- ZOO 2020 – Anatomy and Physiology II* 4
- OR-
  - ZOO 2015 – Human Anatomy* -AND- 4
  - ZOO 2025 – Human Physiology* 4
- MATH 1400 – Pre-Calculus Algebra (College Algebra) 4
- ENGL 1010 – English I: Composition 3
- PSYC 1000 – General Psychology 4
- PHYS 1050 – Concepts of Physics 4
- CO/M 1030 – Interpersonal Communication -OR- 4
- CO/M 1010 – Public Speaking 3
- HLTK 1200 – Medical Terminology 2

Total prerequisite credit hours 28

Note: A 3.0 prerequisite courses GPA is required.

* Must be completed within the past five years unless currently working as a healthcare professional.

** Students must complete one 8-credit sequence. Taking one course from each sequence will NOT fulfill this requirement.

**SUMMER I**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>IMAG 2205</td>
<td>Introduction to Diagnostic Medical Sonography</td>
<td>3</td>
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<tr>
<td>IMAG 2212</td>
<td>Cross-Sectional Anatomy</td>
<td>3</td>
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<tr>
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<td>Physical Education Activity</td>
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**TOTAL** 7

**FALL I**

<table>
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<th>Course Name</th>
<th>Credit Hours</th>
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<tbody>
<tr>
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<td>Radiographic Patient Skills</td>
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<tr>
<td>HLTK 2300</td>
<td>Health Care Ethics</td>
<td>3</td>
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<tr>
<td>IMAG 2210</td>
<td>Ultrasound Physics I</td>
<td>2</td>
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<td>IMAG 2220</td>
<td>OB/GYN Sonography I</td>
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<tr>
<td>IMAG 2215</td>
<td>Abdominal Sonography I</td>
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**TOTAL** 13

**SPRING I**

<table>
<thead>
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<tbody>
<tr>
<td>IMAG 2250</td>
<td>OB/GYN Sonography II</td>
<td>3</td>
</tr>
<tr>
<td>IMAG 2240</td>
<td>Ultrasound Physics II</td>
<td>2</td>
</tr>
<tr>
<td>IMAG 2245</td>
<td>Abdominal Sonography II/Small Parts</td>
<td>3</td>
</tr>
<tr>
<td>IMAG 2252</td>
<td>Introduction to Vascular Sonography</td>
<td>3</td>
</tr>
<tr>
<td>CMAP 1610</td>
<td>Windows I -OR-</td>
<td>1</td>
</tr>
<tr>
<td>CMAP 1685</td>
<td>Using Computers in: Radiography -OR-</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Computer Literacy Elective</td>
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</table>

**TOTAL** 12

**SUMMER II**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMAG 2254</td>
<td>DMS Beginning Clinical Experience</td>
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**TOTAL** 6

**FALL II**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMAG 2255</td>
<td>Sonography Clinical Experience I</td>
<td>11</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American and Wyoming Government -OR-</td>
<td></td>
</tr>
<tr>
<td>HIST 1211</td>
<td>U.S. to 1865 -OR-</td>
<td></td>
</tr>
<tr>
<td>HIST 1221</td>
<td>U.S. from 1865 -OR-</td>
<td></td>
</tr>
<tr>
<td>HIST 1251</td>
<td>Wyoming History -OR-</td>
<td></td>
</tr>
<tr>
<td>ECON 1200</td>
<td>Economics, Law, and Government</td>
<td>3</td>
</tr>
<tr>
<td>IMAG 2265</td>
<td>Registry Review I</td>
<td>1</td>
</tr>
</tbody>
</table>

**TOTAL** 15

**SPRING II**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>IMAG 2260</td>
<td>Sonography Clinical Experience II</td>
<td>13</td>
</tr>
<tr>
<td>IMAG 2270</td>
<td>Registry Review II</td>
<td>1</td>
</tr>
</tbody>
</table>

Total program credit hours 67

Total credit hours for A.A.S. degree 95
Diesel Technology

The diesel technology program is designed to prepare the student for employment in the diesel industry. The program also offers courses for those who want to upgrade their skills or meet some personal objective of learning about diesel technology.

The nine-month program is designed for full-time students, and the courses are offered in a sequence of blocks. The block varies from three to four weeks in length depending on the number of credits for each course. Classes are held from 9 a.m. to 3:30 p.m. Monday through Friday. The diesel technology courses are designed to prepare students for the ASE certification exam.

Nine-Month Certificate

**FALL SEMESTER**
- DESL 1540 – Diesel Electrical ............................................. 4
- DESL 1610 – Engine Rebuilding I ....................................... 5
- DESL 1630 – Diesel Engines Diagnosis and Tune-up ....... 2
- DESL 2955 – Automotive Diesel ......................................... 3
- BADM 1021 – Customer Service I ......................................... 1
- MATH 1510 – Technical Mathematics I ............................... 3

**SPRING SEMESTER**
- DESL 1650 – Diesel Fuel Systems and Tuning I ................. 4
- DESL 1700 – Diesel Transmission Theory and Rebuilding ........ 3
- DESL 1755 – Heating, Air Conditioning and Refrigeration ........ 4
- DESL 2950 – Air Brake Systems .......................................... 4
- Computer Literacy Elective ..................................................... 1-3
- MGT 1010 – Employment Orientation I ............................ 1

Total credit hours required ...................................................18

Associate of Applied Science Degree

To earn an Associate of Applied Science degree in diesel technology, a student will need to complete the following program of study. The diesel technology program is designed to prepare students for employment in the diesel industry. The program also offers courses for those who want to upgrade their skills or meet some personal objective of learning about diesel technology. The diesel technology courses are designed to prepare students for the ASE certification exam.

**First Year**

**FALL SEMESTER**
- DESL 1540 – Diesel Electrical ............................................. 4
- DESL 1610 – Engine Rebuilding I ....................................... 5
- DESL 1630 – Diesel Engines Diagnosis and Tune-up ....... 2
- DESL 2955 – Automotive Diesel ......................................... 3
- BADM 1021 – Customer Service I ......................................... 1
- MATH 1510 – Technical Mathematics I ............................... 3

**SPRING SEMESTER**
- DESL 1650 – Diesel Fuel Systems and Tuning I ................. 4
- DESL 1700 – Diesel Transmission Theory and Rebuilding ........ 3
- DESL 1755 – Heating, Air Conditioning and Refrigeration ........ 4
- DESL 2950 – Air Brake Systems .......................................... 4
- Computer Literacy Elective ..................................................... 1-3
- MGT 1010 – Employment Orientation I ............................ 1

Total credit hours required ...................................................17-19

**Second Year**

**FALL SEMESTER**
- Automotive Technology Elective ............................................ 3
- Automotive Body Repair Elective ........................................ 3
- ENGL 1010 – English I: Composition .................................... 3
- CO/M 1030 – Interpersonal Communication ..................... 3
- POLS 1000 – American and Wyoming Government -OR-
  HIST 1211 – U.S. to 1865 -OR-
  HIST 1221 – U.S. from 1865 -OR-
  HIST 1251 – Wyoming History -OR-
- ECON 1200 – Economics, Law, and Government ............... 3
- Physical Education Activity ..................................................... 1

Total credit hours required ...................................................16

**SPRING SEMESTER**
- MGT 1000 – Introduction to Supervision -OR-
- ENTK 1080 – Principles of Technology .................................. 3-4
- DESL 1850 – Diesel Hydraulic Fundamentals ................. 3
- ECON 1000 – Survey of Economics ........................................ 3
- Electives (approved by advisor) .............................................. 4-6

Total credit hours required ...................................................13-16

Total credit hours required ...................................................64-69
### Economics and Finance

This program leads to the Associate of Science degree. The course work provides a sound investment into students' futures in fields such as business, banking, investments, insurance, or real estate. This degree offers all of the necessary course work for a solid foundation in economics and finance to transfer to a four-year college, allowing students to pursue a Bachelor's degree in economics, finance, or a dual major in both. Students must have at least a 2.5 GPA to transfer to the University of Wyoming's College of Business.

#### First Year

**FALL SEMESTER**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BADM 1000 – Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>COSC 1200 – Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1200 – Economics, Law, and Government -OR-</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1000 – American and Wyoming Government -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1211 – U.S. to 1865 -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1221 – U.S. from 1865 -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1251 – Wyoming History</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1010 – English I: Composition</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1400 – Pre-Calculus Algebra</td>
<td>4</td>
</tr>
<tr>
<td>Arts and Humanities Elective</td>
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</table>

**SPRING SEMESTER**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 2010 – Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>CO/M 1010 – Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1010 – Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1020 – English II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2200 – Calculus I -OR-</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2350 – Business Calculus I</td>
<td>4</td>
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</tbody>
</table>

#### Second Year

**FALL SEMESTER**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ACCT 2020 – Principles of Accounting II</td>
<td>3</td>
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<tr>
<td>ECON 1020 – Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2205 – Calculus II -OR-</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2355 – Mathematical Applications for Business</td>
<td>4</td>
</tr>
<tr>
<td>STAT 2010 – Statistical Concepts-Business</td>
<td>4</td>
</tr>
<tr>
<td>Physical Education Activity</td>
<td>1</td>
</tr>
<tr>
<td>Lab Science</td>
<td>3</td>
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</table>

**SPRING SEMESTER**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>FIN 2100 – Managerial Finance</td>
<td>3</td>
</tr>
<tr>
<td>IMGT 2400 – Introduction to Information Management*</td>
<td>3</td>
</tr>
<tr>
<td>Advisor-Approved Electives (choose three from the following)</td>
<td>9</td>
</tr>
<tr>
<td>BADM 2010 – Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>DSCI 2210 – Production and Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2100 – Money and Banking</td>
<td>3</td>
</tr>
<tr>
<td>MGT 2100 – Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT 2100 – Principles of Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

Total credit hours required: **69**

*Required minimum grade of C in this capstone course.

### Education

#### Associate of Arts

This major is designed to provide orientation and background for the student anticipating a teaching career in elementary or secondary education. Students are urged to obtain information regarding the requirements and recommendations of the institution to which they plan to transfer and the assistance of an LCCC education advisor.

Completion of the following program leads to an Associate of Arts degree.

**GENERAL EDUCATION CORE**

**Communication and Information Literacy**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 – English I: Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1020 – English II</td>
<td>3</td>
</tr>
<tr>
<td>CO/M 1010 – Public Speaking -OR-</td>
<td>3</td>
</tr>
<tr>
<td>CO/M 1030 – Interpersonal Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

**Mathematics and Quantitative Reasoning**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1000 – Problem Solving (or higher, excluding MATH 1510; please see advisor)</td>
<td>3-4</td>
</tr>
</tbody>
</table>

**Cultural, Historical, Political, and Social Development**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 1000 – American and Wyoming Government -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1211 – U.S. to 1865 -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1221 – U.S. from 1865 -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1251 – Wyoming History</td>
<td>3</td>
</tr>
<tr>
<td>Social Science (see page 25)</td>
<td>6</td>
</tr>
<tr>
<td>Art, Humanities, Music, Foreign Language or Theater (two courses from two different disciplines)</td>
<td>6</td>
</tr>
</tbody>
</table>

**Scientific and Technical Processes**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITEC 2360 – Teaching with Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Physical Wellness** (physical education activity) | 1       |

**GENERAL COLLEGE ELECTIVES** | 16-17   |

Must include HLED 1221 – Standard First Aid and Safety | 2       |

**MAJOR CORE COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDFD 1010 – Introduction to Teaching (R)</td>
<td>2</td>
</tr>
<tr>
<td>EDFD 2020 – Foundations of Education (P)(R)</td>
<td>3</td>
</tr>
<tr>
<td>EDST 2450 – Human Life Span Development (P)(R)</td>
<td>3</td>
</tr>
<tr>
<td>EDFD 2100 – Educational Psychology (P)(R**</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 2100 – Public School Practicum (P)(R)</td>
<td>3</td>
</tr>
</tbody>
</table>

Total credit hours required: **65-67**

Please note: Students are strongly encouraged to meet with an advisor to determine courses that will transfer to the four-year college of their choice.
Preprofessional Option: Early Childhood Education

Associate of Arts

This option is designed for the student anticipating a career working with young children. Students are urged to obtain information regarding the requirements and recommendations of the institution to which they plan to transfer and the assistance of an LCCC education advisor.

Completion of the following program, in addition to the General Education Core courses, leads to an Associate of Arts degree. A minimum of 64 credit hours is required for the degree.

GENERAL EDUCATION CORE

Communication and Information Literacy
ENGL 1010 – English I: Composition ......................................................... 3
ENGL 1020 – English II ............................................................................. 3
CO/M 1010 – Public Speaking -OR-
CO/M 1030 – Interpersonal Communication ............................................. 3

Mathematics and Quantitative Reasoning
MATH 1000 – Problem Solving (or higher, excluding MATH 1510) ............... 3-4

Cultural, Historical, Political, and Social Development
POLS 1000 – American and Wyoming Government -OR-
HIST 1211 – U.S. to 1865 -OR-
HIST 1221 – U.S. from 1865 -OR-
HIST 1251 – Wyoming History -OR-
ECON 1200 – Economics, Law, and Government ...................................... 3

Social Science (see page 25) ..................................................................... 6

Art, Humanities, Music, Foreign Language or Theater (two courses from two different disciplines) ................................................. 6

Scientific and Technical Processes
ITEC 2360 – Teaching with Technology .............................................. 3

Physical Wellness (physical education activity) ........................................ 1

35-36

GENERAL COLLEGE ELECTIVES ......................................................... 16-17
Must include HLED 1221 – Standard First Aid and Safety .......................... 2

MAJOR CORE COURSES

EDEC 1020 – Introduction to Early Childhood Education ...................... 3
PSYC 2300 – Child Psychology ................................................................. 3
EDEC 1100 – Observation and Guidance of Young Children/Lab ................ 3
EDEC 2200 – Early Childhood Practicum ................................................. 3-5
HOEC 1140 – Nutrition ............................................................................ 2
EDEC 1300 – Curriculum Planning and Review for Young Children/Lab .......... 3
FCSC 2122 – Child Growth and Development/Lab .................................. 1
Total credit hours required ....................................................................... 69-72

CODES:
(P) A prerequisite is required for this course. Refer to the specific course description in back pages of this catalog.
(R) This course is required to complete LCCC program requirements in education for the Associate of Arts degree.
** It is recommended that this course be taken after math and science requirements are completed.

Early Childhood Education

Associate of Applied Science

The Early Childhood Education program is designed to provide students an understanding of the cognitive, physical, social, and emotional development of young children from infancy to middle childhood in diverse learning environments. Opportunities to apply this knowledge in practical experiences are incorporated into the curriculum. Curriculum topics include, but are not limited to, developmental ages and stages, health and safety, curriculum planning and assessment.

These courses are designed to combine theoretical and lab experiences for students to acquire skills and techniques required of early childhood care providers as well as to develop career opportunity skills. Students seeking courses to assist in their completion of the Child Development Associate (CDA) credential should consult with an early childhood advisor.

Completion of the following program, in addition to the General Education core courses, leads to an Associate of Applied Science degree. A minimum of 64 credit hours is required for the degree.

GENERAL EDUCATION CORE

Communication and Information Literacy
ENGL 1010 – English I: Composition ......................................................... 3
CO/M 1010 – Public Speaking -OR-
CO/M 1030 – Interpersonal Communication ............................................. 3

Mathematics and Quantitative Reasoning
MATH 1000 – Problem Solving (or higher) ................................................. 3-4

Cultural, Historical, Political, and Social Development
POLS 1000 – American and Wyoming Government -OR-
HIST 1211 – U.S. to 1865 -OR-
HIST 1221 – U.S. from 1865 -OR-
HIST 1251 – Wyoming History -OR-
ECON 1200 – Economics, Law, and Government ...................................... 3

PSYC 1000 – General Psychology .............................................................. 4

Scientific and Technical Processes
Lab Science (physical, biological, or Earth lab science or technical course) ........ 4

Computer Literacy
ITEC 2360 – Teaching with Technology .............................................. 3

Physical Wellness (physical education activity) ........................................ 1

1-3

GENERAL COLLEGE ELECTIVES ......................................................... 16-17

Some recommended selections are below.)
MUSC 1000 – Introduction to Music -OR-
MUSC 2018 – Music for Elementary Classroom Teachers ..................... 3
HLED 1221 – Standard First Aid and Safety ............................................. 2
SOC 1000 – Sociological Principles ............................................................ 3
EDSC 1200 – Administration in Early Childhood Programs ...................... 3
EDFD 2330 – Child Abuse and Neglect .................................................. 2

MAJOR CORE COURSES

EDEC 1020 – Introduction to Early Childhood Education ...................... 3
PSYC 2300 – Child Psychology ................................................................. 3
FCSC 2122 – Child Growth and Development/Lab .................................. 3
EDEC 1030 – Infant and Toddler Care/Lab ................................................. 1
EDEC 1100 – Observation and Guidance of Young Children/Lab ............... 3
EDEC 1300 – Curriculum Planning and Review for Young Children/Lab .......... 3
LIBS 2280 – Literature for Children .......................................................... 3
HOEC 1140 – Nutrition ............................................................................ 2
EDEC 2200 – Early Childhood Practicum ................................................. 3-5
Emergency Medical Services—Paramedics

The Emergency Medical Services—Paramedics certificate program is designed to prepare students for the National Registry for EMTs certification. The quality of the program helps establish the standard for Wyoming paramedic education. This 48-credit-hour certificate program is designed for full-time students. The program will be offered over three semesters, and the courses are in a sequence that builds on each other.

Certificate

PREREQUISITES:
EMT Basic or Intermediate Status
Completion of or currently enrolled in ENGL 1010
Completion of MATH 0920 (or equivalent placement test score)

CORE COURSES
EMGT 2500 – Paramedic Preparatory .................................. 7
EMGT 2510 – Paramedic Airway and Ventilation ............... 2
EMGT 2520 – Paramedic Patient/Management Assessment ................. 4
EMGT 2530 – Paramedic Trauma .................................. 3
EMGT 2540 – Paramedic Medical .................................. 5
EMGT 2550 – Paramedic Cardiology .................................. 5
EMGT 2560 – Paramedic Special Considerations .............. 2
EMGT 2580 – Paramedic Operations .................................. 2
EMGT 2590 – Paramedic Human Systems/Immunization ...... 2
EMGT 2600 – Paramedic Clinical .................................. 3
EMGT 2620 – Paramedic Vehicular I .................................. 7
EMGT 2630 – Paramedic Vehicular II .................................. 6

Associate of Applied Science Degree

The A.A.S. degree in Emergency Medical Services—Paramedics prepares competent, entry-level paramedics for work in various emergency services fields. The program is limited to 12 students. Prospective students must pass a written exam, practical exam, and interview prior to being accepted into the program. All other LCCC application processes also must be met. Prerequisites for entry to the program are EMT-B State certification and employment in the EMS field for at least one year or National Registry of Emergency Medical Technicians (NREMT) certification and employed in the EMS field for at least one year.

COLLEGE REQUIREMENTS (25-27 hours)
CO/M 1010 – Public Speaking -OR-
CO/M 1030 – Interpersonal Communication ..................... 3
ENGL 1010 – English I: Composition ................................. 3
POLS 1000 – American and Wyoming Government -OR-
HIST 1211 – U.S. to 1865 -OR-
HIST 1221 – U.S. from 1865 -OR-
HIST 1251 – Wyoming History -OR-
ECON 1200 – Economics, Law, and Government ............... 3
MATH 1000 – Problem Solving (or higher, excluding MATH 1510) ........ 3
ZOO 2015 – Human Anatomy ........................................... 4
ZOO 2025 – Human Physiology ........................................ 4
Social Science or Arts and Humanities Elective .................... 3
Physical Education Activity ............................................... 1
Computer Literacy Elective ............................................... 1-3

PROGRAM REQUIREMENTS (59 hours)
EMT 1500 – EMT-Basic ...................................................... 6
HLTK 1200 – Medical Terminology ..................................... 2
HLTK 2300 – Health Care Ethics ........................................ 3
EMGT 2500 – Paramedic Preparatory .................................. 7
EMGT 2510 – Paramedic Airway and Ventilation ............... 2
EMGT 2520 – Paramedic Patient/Management Assessment ......... 4
EMGT 2530 – Paramedic Trauma .................................. 3
EMGT 2540 – Paramedic Medical .................................. 5
EMGT 2550 – Paramedic Cardiology .................................. 5
EMGT 2560 – Paramedic Special Considerations .............. 2
EMGT 2580 – Paramedic Operations .................................. 2
EMGT 2590 – Paramedic Human Systems and Immunizations ...... 2
EMGT 2600 – Paramedic Clinical .................................. 3
EMGT 2620 – Paramedic Vehicular I .................................. 7
EMGT 2630 – Paramedic Vehicular II .................................. 6
Total credit hours required ............................................... 84-86
Engineering
Engineering is an exacting applied science requiring a broad background of analytical skills. Many types of engineering require specialization at the junior and senior levels. This program of study gives entering students a general, transferable background in mathematics and engineering science necessary for later specialization.

The engineering program is designed to provide the first two years of a four-year engineering program. After completion of the first two years, students may transfer to a four-year institution and complete the requirements for the Bachelor of Science degree in the field of engineering.

All courses listed below containing an “ES” prefix transfer to the University of Wyoming. Students planning to transfer to out-of-state, four-year institutions are encouraged to contact such institutions about the transferability of LCCC courses.

Many of the second-year engineering courses are offered infrequently.

When the second-year engineering courses are not offered, the first-year courses and general education courses from the second year are recommended. Contact the engineering advisor for additional information.

First Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 2200 – Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 1020 – General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>ES 1060 – Introduction to Engineering Computing</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1010 – English I: Composition</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2205 – Calculus II</td>
<td>5</td>
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<tr>
<td>PHYS 1310 – College Physics I</td>
<td>4</td>
</tr>
<tr>
<td>ES 2110 – Statics++</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1030 – General Chemistry II -OR- GEOL 1100 – Physical Geology*</td>
<td>4</td>
</tr>
<tr>
<td>Physical Education Activity</td>
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</tr>
</tbody>
</table>

Second Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 2210 – Calculus III</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 1020 – English II</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1320 – College Physics II*</td>
<td>4</td>
</tr>
<tr>
<td>ES 2120 – Dynamics++</td>
<td>3</td>
</tr>
<tr>
<td>Social Science Elective</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2310 – Applied Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>CO/M 1010 – Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>Arts and Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>ES 2310 – Thermodynamics++</td>
<td>3</td>
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<tr>
<td>Physical Education Activity</td>
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</tr>
<tr>
<td>Total credit hours required</td>
<td>69-70</td>
</tr>
</tbody>
</table>

*Not required in some engineering fields. Please check with advisor.

++These courses may be taken at the University of Wyoming and transferred back for the AS degree.

Engineering Technology
The engineering technology certificate program is designed to provide students with the necessary skills in drafting technologies and to prepare them for entry-level positions.

Certificate Program

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FALL SEMESTER</td>
<td></td>
</tr>
<tr>
<td>ENTK 1510 – Drafting I</td>
<td>3</td>
</tr>
<tr>
<td>ENTK 1560 – Freehand Sketching</td>
<td>3</td>
</tr>
<tr>
<td>ENTK 1520 – Drafting II</td>
<td>3</td>
</tr>
<tr>
<td>ENTK 1570 – Inking for Drafters</td>
<td>3</td>
</tr>
<tr>
<td>ENTK 2500 – Computer-Aided Drafting I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 0930 – Intermediate Algebra (or higher)</td>
<td>3</td>
</tr>
<tr>
<td>Total credit hours required</td>
<td>18</td>
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</table>

SPRING SEMESTER

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTK 1710 – Architectural Drafting I</td>
<td>3</td>
</tr>
<tr>
<td>ENTK 2505 – Computer-Aided Drafting II</td>
<td>3</td>
</tr>
<tr>
<td>ENTK 1720 – Architectural Drafting II</td>
<td>3</td>
</tr>
<tr>
<td>ENTK 2510 – Computer-Aided Drafting III</td>
<td>3</td>
</tr>
<tr>
<td>ENTK 2520 – Advanced Mechanical Drafting</td>
<td>3</td>
</tr>
<tr>
<td>ENTK 2550 – Civil Drafting Technology</td>
<td>3</td>
</tr>
<tr>
<td>Total credit hours required</td>
<td>18</td>
</tr>
</tbody>
</table>
Associate of Applied Science

Drafting Option

The engineering technology program is designed to prepare students for entry-level positions as a technician in drafting. The drafting option leads to an Associate of Applied Science degree in engineering technology.

First Year

FALL SEMESTER

ENTK 1510 – Drafting I ....................................................... 3
ENTK 1560 – Freehand Sketching ........................................ 3
ENTK 1520 – Drafting II ...................................................... 3
ENTK 1570 – Inking for Drafters .......................................... 3
ENTK 2500 – Computer-Aided Drafting I ............................. 3
MATH 0930 – Intermediate Algebra (or higher) ..................... 3

SPRING SEMESTER

ENTK 1710 – Architectural Drafting I .................................. 3
ENTK 2505 – Computer-Aided Drafting II ............................ 3
ENTK 1720 – Architectural Drafting II .................................. 3
ENTK 2510 – Computer-Aided Drafting III ........................... 3
ENTK 2520 – Advanced Mechanical Drafting ....................... 3
ENTK 2550 – Civil Drafting Technology ............................... 3

Second Year

FALL SEMESTER

MATH 1400 – Pre-Calculus Algebra ..................................... 4
ENGL 1010 – English I: Composition .................................. 3
CO/M 1030 – Interpersonal Communication ......................... 3
MGT 1010 – Employment Orientation ................................... 1
COSC 1200 – Computer Information Systems ...................... 3
Physical Education Activity ................................................ 1

SPRING SEMESTER

MATH 1405 – Pre-Calculus Trigonometry -OR-
Engineering Elective ....................................................... 3
MGT 1000 – Introduction to Supervision -OR-
1080 – Principles of Technology ...................................... 3-4
POLS 1000 – American and Wyoming Government -OR-
HIST 1211 – U.S. to 1865 -OR-
HIST 1221 – U.S. from 1865 -OR-
HIST 1251 – Wyoming History -OR-
ECON 1200 – Economics, Law, and Government ................. 3
COSC 1750 – Spreadsheet Applications I ............................ 1
COSC 1760 – Word Processing I ......................................... 1
ECON 1000 – Survey of Economics ..................................... 3

Total credit hours required ............................................... 65-66

English

Mastery of the English language is essential for success in all fields of study. The major in English encourages students to develop and enrich reading, writing, and critical thinking skills by completing a broad base of liberal arts courses along with essential courses in writing and literature. The major leads to an Associate of Arts degree and applies towards various bachelor-degree programs including administration, communications, English, journalism, pre-law, and pre-medicine.

ENGL 1010 and ENGL 1020 do not count in the total required credits for a major in English at most schools.

NOTE: Students who wish to be certified for public school teaching also should consult the requirements for a secondary education major.

Non-English majors study in the English area for aesthetic reasons and for improvement of reading and writing skills.

GENERAL EDUCATION REQUIREMENTS

Computer Literacy Elective (One MATH, CMAP [except CMAP 1500] or COSC course, but others apply [see catalog]) ........................................... 1

Physical Education Activity (PEAC 1295 is recommended for students who plan to transfer to the University of Wyoming) .................. 1

ENGL 1010 – English I: Composition .................................. 3
ENGL 1020 – English II .................................................... 3
CO/M 1010 – Public Speaking -OR-
CO/M 1030 – Interpersonal Communication ....................... 3
MATH 1000 – Problem Solving -OR-
MATH 1400 – Pre-Calculus Algebra .................................. 3-4

Physical, Biological, or Earth Lab Science .............................. 4
POLS 1000 – American and Wyoming Government -OR-
HIST 1211 – U.S. to 1865 -OR-
HIST 1221 – U.S. from 1865 -OR-
HIST 1251 – Wyoming History -OR-
ECON 1200 – Economics, Law, and Government ................. 3
Social Science Electives (Two courses from AMST, ANTH, CRMJ, GEOG, HIST, LEGL, POLS, PSYC, SOC) .................. 6
HUMN 1010 – Introductory Humanities I ............................ 3
PHIL 1000 – Introduction to Philosophy ............................. 3

Total college requirements ................................................ 33-34

ENGLISH MAJOR REQUIREMENTS

Fine Arts and Humanities Elective (One ART, MUSC, or THEA course) -AND- and any other HUMN course ....... 6
English Electives (Any 2000-level ENGL or LIBS course) ...... 12
Foreign Language
(To count toward a major, the foreign language must be an approved major language, and must also be learning for at least one year beyond a high school level. Two consecutive courses recommended) ........... 8

Open Electives (a third-semester of foreign language is recommended for students transferring to the University of Wyoming) .. 6-7

Total major requirements ................................................. 32-33

Total credit hours required ............................................... 65-67
Entrepreneurship

The entrepreneurship degree is designed to prepare students for creating and managing a small business. This occupational program combines academic study with work-related experience and leads to the Associate of Applied Science degree in Entrepreneurship. Courses taken for a satisfactory/unsatisfactory (S/U) grade shall not be applied toward degree requirements.

**Associate of Applied Science Degree**

**First Year**

<table>
<thead>
<tr>
<th>SEMESTER</th>
<th>COURSE</th>
<th>CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>FALL SEMESTER</td>
<td>ENTR 1500 – Successful Entrepreneurship</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ENTR 1510 – Analyzing Business Opportunities</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>BADM 1000 – Introduction to Business</td>
<td>3</td>
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<tr>
<td></td>
<td>MATH 1000 – Problem Solving (or higher)</td>
<td>3</td>
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<tr>
<td></td>
<td>ENGL 1010 – English I: Composition</td>
<td>3</td>
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<tr>
<td></td>
<td>COSC 1200 – Computer Information Systems</td>
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<td></td>
<td>Physical Education Activity</td>
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<td></td>
<td><strong>Total</strong></td>
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**SPRING SEMESTER**

<table>
<thead>
<tr>
<th>COURSE</th>
<th>CREDIT</th>
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<tbody>
<tr>
<td>ENTR 1520 – Creating a Business Plan</td>
<td>2</td>
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<tr>
<td>ENTR 1530 – Accounting for Entrepreneurs</td>
<td>2</td>
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<tr>
<td>BADM 2030 – Business Ethics</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 2520 – Legal Issues for Entrepreneurs</td>
<td>2</td>
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<tr>
<td>ENTR 2530 – Funding Sources for Entrepreneurs</td>
<td>2</td>
</tr>
<tr>
<td>ECON 1000 – Survey of Economics</td>
<td>3</td>
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<tr>
<td>CO/M 1010 – Public Speaking -OR-</td>
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<tr>
<td><strong>Total</strong></td>
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**Second Year**

<table>
<thead>
<tr>
<th>SEMESTER</th>
<th>COURSE</th>
<th>CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>FALL SEMESTER</td>
<td>ENTR 2500 – Small Business Operations Management</td>
<td>2</td>
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<tr>
<td></td>
<td>ENTR 1540 – Marketing for Entrepreneurs</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ACTA 2460 – Payroll Accounting</td>
<td>3</td>
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<tr>
<td></td>
<td>BUSN 2000 – International Business</td>
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<tr>
<td></td>
<td>MKT 1000 – Sales</td>
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<tr>
<td></td>
<td>MGT 2100 – Principles of Management</td>
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<tr>
<td></td>
<td>ENTR 1590 – Entrepreneurial Leadership I</td>
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<td></td>
<td><strong>Total</strong></td>
<td>17</td>
</tr>
</tbody>
</table>

| SPRING SEMESTER     | ENTR 2530 – Funding Sources for Entrepreneurs | 2      |
|                    | ENTR 2540 – Small Business Financial Management | 2      |
|                    | BADM 1031 – Personal Financial Planning | 1      |
|                    | BADM 1032 – Risk and Credit Management | 1      |
|                    | BADM 1033 – Investment/Retirement Planning | 1      |
|                    | MGT 1200 – Human Resource Management | 3      |
|                    | ENTR 2590 – Entrepreneurial Leadership II | 1      |
|                    | **Total** | 17 |

**Total credit hours required** ........................................................ 69

Entrepreneurship Business Plan Certificate

The Entrepreneurship Business Plan Certificate program is designed to be “added” on to any career or occupational degree for students who want focused education in small business creation or the existing business owner who needs to develop new growth strategies or a business plan.

**CERTIFICATE COURSEWORK**

<table>
<thead>
<tr>
<th>COURSE</th>
<th>CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTR 1500 – Successful Entrepreneurship</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 1510 – Analyzing Business Opportunities</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 1520 – Creating a Business Plan</td>
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<tr>
<td><strong>Total</strong></td>
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</tbody>
</table>

Entrepreneurship Certificate

The Entrepreneurship Certificate program is designed as a focused study in small business creation and management for the student or existing business owner.

**CERTIFICATE COURSEWORK**

<table>
<thead>
<tr>
<th>COURSE</th>
<th>CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTR 1500 – Successful Entrepreneurship</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 1510 – Analyzing Business Opportunities</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 1520 – Creating a Business Plan</td>
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<tr>
<td>ENTR 2520 – Legal Issues for Entrepreneurs</td>
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<tr>
<td>BADM 2030 – Business Ethics</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 2500 – Small Business Operations Management</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 1540 – Marketing for Entrepreneurs</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 1530 – Accounting for Entrepreneurs</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 2530 – Funding Sources for Entrepreneurs</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 2540 – Small Business Financial Management</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 1590 – Entrepreneurial Leadership I</td>
<td>1</td>
</tr>
<tr>
<td>ENTR 2590 – Entrepreneurial Leadership II</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1000 – Survey of Economics</td>
<td>3</td>
</tr>
<tr>
<td>ACTA 2460 – Payroll Accounting</td>
<td>3</td>
</tr>
<tr>
<td>MKT 1000 – Sales</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>32</td>
</tr>
</tbody>
</table>
Equine Studies

The equine studies program offers three options leading to an associate’s degree designed for students interested in equine science, business or training. Two of these options are designed for transfer to a university or four-year college. The equine studies program provides students with hands-on experience in training and horse health care to produce graduates who are in high demand in the equine industry. Built on a strong foundation of training and expertise, the nationally recognized program continually adapts to incorporating the latest techniques and scientific advances to best prepare students for success.

Equine Science Option

The Associate of Science degree in equine science is designed for those students who plan to transfer to a university or a four-year college to pursue a Bachelor of Science degree in animal/ equine science. Admission to the equine science program is competitive. Please contact the equine studies department or the LCCC Admissions Office for procedures and deadlines. Admission to LCCC does not assure admission to the equine science program; a supplemental program application is required.

First Year

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EQST 1515 – Equine Science I</td>
<td>4</td>
</tr>
<tr>
<td>EQST 1520 – Equine Evaluation I</td>
<td>3</td>
</tr>
<tr>
<td>EQST 1900 – Basic Management and Training</td>
<td>4</td>
</tr>
<tr>
<td>CO/M 1010 – Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1010 – English I: Composition</td>
<td>3</td>
</tr>
<tr>
<td>SPRING SEMESTER</td>
<td></td>
</tr>
<tr>
<td>EQST 1516 – Equine Science II</td>
<td>3</td>
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<tr>
<td>EQST 2825 – Advanced Horse Management and Training</td>
<td>4</td>
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<tr>
<td>ENGL 1020 – English II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1400 – Pre-Calculus Algebra</td>
<td>4</td>
</tr>
<tr>
<td>AGRI 1010 – Computers: Agriculture</td>
<td>3</td>
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</tbody>
</table>

Second Year

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EQST 2500 – Equine Health Management</td>
<td>3</td>
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<tr>
<td>AGEC 2010 – Farm-Ranch Business Records</td>
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<tr>
<td>BIOL 1000 – Principles of Biology</td>
<td>4</td>
</tr>
<tr>
<td>POLS 1000 – American and Wyoming Government -OR-</td>
<td></td>
</tr>
<tr>
<td>HIST 1211 – U.S. to 1865 -OR-</td>
<td></td>
</tr>
<tr>
<td>HIST 1221 – U.S. from 1865 -OR-</td>
<td></td>
</tr>
<tr>
<td>HIST 1251 – Wyoming History -OR-</td>
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</tr>
<tr>
<td>ECON 1200 – Economics, Law, and Government</td>
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<tr>
<td>Social Science Elective</td>
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<tr>
<td>Physical Education Activity</td>
<td>1</td>
</tr>
<tr>
<td>SPRING SEMESTER</td>
<td></td>
</tr>
<tr>
<td>EQST 2520 – Equine Breeding</td>
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<tr>
<td>EQST 2700 – Equine Seminar</td>
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<td>Arts and Humanities Elective</td>
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<td>MATH 2350 – Business Calculus I -OR-</td>
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<td>Statistics Elective</td>
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<tr>
<td>Agriculture/Equine Elective</td>
<td>4</td>
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</tbody>
</table>

Total credit hours required 66

EOST 2970 – Internship for 6-12 credit hours is an important educational experience that can be taken any time after successfully completing the first two semesters of the equine science program of study. Consult an equine instructor for further information.

Equine Business Management Option

The equine business management program gives students a background in equine management with an emphasis on business management and professional skills. Students will have a working knowledge of the aspects of the horse, equine industry, and management of various aspects of that industry. This Associate of Science degree is designed to prepare students for transfer to a university for a bachelor’s degree or careers in farm, barn, and program management; feed and pharmaceutical sales; breed association management; equine publications; and other related industry fields.

First Year

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EOST 1515 – Equine Science I</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 1010 – English I: Composition</td>
<td>3</td>
</tr>
<tr>
<td>BADM 1000 – Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1000 – Principles of Biology</td>
<td>4</td>
</tr>
<tr>
<td>AGRI 1010 – Computers: Agriculture</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1400 – Pre-Calculus Algebra</td>
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</tr>
<tr>
<td>Equine Elective</td>
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<tr>
<td>Physical Education Activity</td>
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</tr>
<tr>
<td>SPRING SEMESTER</td>
<td></td>
</tr>
<tr>
<td>EOST 1516 – Equine Science II</td>
<td>3</td>
</tr>
<tr>
<td>EQST 2520 – Equine Breeding</td>
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<tr>
<td>CO/M 1010 – Public Speaking</td>
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<td>ENGL 1020 – English II</td>
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<tr>
<td>MATH 1400 – Pre-Calculus Algebra</td>
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<tr>
<td>Equine Elective</td>
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<td>SPRING SEMESTER</td>
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<tr>
<td>EOST 1515 – Equine Science I</td>
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<tr>
<td>ACCT 2010 – Principles of Accounting I</td>
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<td>MGT 2100 – Principles of Management</td>
<td>3</td>
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<tr>
<td>AGEC 1010 – Agriculture Economics -OR-</td>
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<tr>
<td>ECON 1010 – Principles of Macroeconomics</td>
<td>3</td>
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<tr>
<td>POLS 1000 – American and Wyoming Government -OR-</td>
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<tr>
<td>HIST 1211 – U.S. to 1865 -OR-</td>
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<tr>
<td>HIST 1221 – U.S. from 1865 -OR-</td>
<td></td>
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<tr>
<td>HIST 1251 – Wyoming History -OR-</td>
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<td>Arts and Humanities Elective</td>
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<td>SPRING SEMESTER</td>
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<tr>
<td>AGEC 2500 – Agricultural Trade Policy</td>
<td>3</td>
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<td>MATH 2350 – Business Calculus I</td>
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<td>MKT 2100 – Principles of Marketing</td>
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<td>AGEC 1020 – Agriculture Economics II -OR-</td>
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<td>ECON 1200 – Principles of Microeconomics</td>
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<td>EQST 2985 – Equine Business Law</td>
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<tr>
<td>Total credit hours required</td>
<td>72</td>
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</table>
Equine Training Management Option

This program of study includes a balance of classroom instruction and sequential laboratory experiences leading to an Associate of Applied Science degree. Students learn how to train horses and manage farms upon completion of the program. Admission to the equine training management program is competitive. Please contact the equine studies department or the LCCC Admissions Office for procedures and deadlines. Admission to LCCC does not assure admission to the equine training management program; a supplemental program application is required.

First Year

FALL SEMESTER

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EOST 1515 – Equine Science I</td>
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<td>EOST 1550 – Equine Evaluation I</td>
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<tr>
<td>EOST 1900 – Basic Management and Training</td>
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<td>-</td>
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<tr>
<td>ENGL 1010 – English I: Composition</td>
<td>3</td>
<td>-</td>
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<tr>
<td>AGRI 1010 – Computers: Agriculture</td>
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SPRING SEMESTER

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>EOST 1516 – Equine Science II</td>
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<td>-</td>
</tr>
<tr>
<td>EOST 2520 – Equine Breeding</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>EOST 2825 – Advanced Horse Management and Training</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>MATH 1000 – Problem Solving</td>
<td>3</td>
<td>-</td>
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<tr>
<td>CO/M 1010 – Public Speaking</td>
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SUMMER SEMESTER

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<tr>
<td>EOST 2970 – Internship</td>
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<td>Internship may also be taken summer following second year</td>
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<tr>
<td></td>
<td></td>
<td>(internship may also be taken summer following second year)</td>
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Second Year

FALL SEMESTER

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOST 2500 – Equine Health Management</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>EOST 2560 – Advanced Training Techniques</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>AGEC 2010 – Farm-Ranch Business Records</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Social Science Elective</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>POLS 1000 – American and Wyoming Government -OR-</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>HIST 1211 – U.S. to 1865 -OR-</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>HIST 1221 – U.S. from 1865 -OR-</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>HIST 1251 – Wyoming History -OR-</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>ECON 1200 – Economics, Law, and Government</td>
<td>3</td>
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<td><strong>Total</strong></td>
<td><strong>16</strong></td>
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</table>

SPRING SEMESTER

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOST 2985 – Equine Business Law</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>EOST 2660 – Equine Sales and Service</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>EOST 2700 – Equine Seminar</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Physical Education Activity</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Agriculture/Equine Electives</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
<td></td>
</tr>
</tbody>
</table>

Total credit hours required: **69-75**

Fire Science Technology

The Fire Science Technology program is designed to meet the demands of fire service personnel. The program prepares students for a career in the fire service (career or volunteer). Courses are offered through traditional classroom instruction, independent study, lab, and an academy setting. The program prepares students to take the Wyoming State Firefighter II nationally accredited certification exam. This certification is transferable from state to state within a one-year period from program completion. Experienced firefighters may earn credits transferable to the program from on-the-job training and current certifications.

Associate of Science

CORE COURSES (students must take a minimum of 22 credits from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE 1501 – Principles of Emergency Services</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>FIRE 1510 – Firefighting Strategy and Tactics I</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>FIRE 1625 – Fire Protection Hydraulics and Water Supply</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>FIRE 1700 – Introduction to Fire Prevention</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>FIRE 1725 – Fire Protection Systems</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>FIRE 1750 – Fire Behavior and Combustion</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>FIRE 2610 – Chemistry of Hazardous Materials</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>FIRE 2970 – Firefighter Field Experience</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>GEOG 1490 – Introduction to Meteorology</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>GEOG 1490 – Mobile Mapping GIs</td>
<td>1</td>
<td>-</td>
</tr>
</tbody>
</table>

In addition to the above, students must complete both of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMT 1500 – Emergency Medical Technician Basic (EMT-B)</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>FIRE 2800 – Fire Academy</td>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>36</strong></td>
<td></td>
</tr>
</tbody>
</table>

GENERAL EDUCATION REQUIREMENTS (32 credits)

Computer Literacy | 1

Physical, Biological, or Earth Laboratory Science (required GEOG 1010) | 4

Two courses from MATH 1400 and higher, excluding MATH 1510, or MATH 1400 and higher, excluding MATH 1510 -AND- Statistics | 8

Physical, Biological, or Earth Laboratory Science (recommended GEOG 1010) | 4

Associate of Applied Science

CORE COURSES (students must take a minimum of 24 credits from the following FIRE courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE 1501 – Principles of Emergency Services</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>FIRE 1510 – Firefighting Strategy and Tactics I</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>FIRE 1625 – Fire Protection Hydraulics and Water Supply</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>FIRE 1700 – Introduction to Fire Prevention</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>FIRE 1725 – Fire Protection Systems</td>
<td>3</td>
<td>-</td>
</tr>
</tbody>
</table>
FIRE 1700 – Introduction to Wildland Firefighting .......................... 4
FIRE 1760 – Building Construction ................................... 3
FIRE 2610 – Chemical of Hazardous Materials .................... 3
FIRE 2970 – Firefighter Field Experience ............................. 4
GEOG 1490 – Introduction to Meteorology ............................. 4
GEOG 1490 – Mobile Mapping GIS ...................................... 1
In addition to the above, students must complete the following:

FIRE 1500 – Emergency Medical Technician Basic (EMT-B) ......... 6
FIRE 2800 – Fire Academy ................................................. 8
HLTK 1200 – Medical Terminology ..................................... 2
HLTK 2300 – Healthcare Ethics ............................................ 3

GENERAL EDUCATION REQUIREMENTS (21 credits)

Required Courses:

- Computer Literacy ................................................................ 1
- PEAC 1295 – Individualized Exercise Program (Firefighter Conditioning) .......... 1
- ENGL 1010 – English I: Composition .................................. 3
- ENGL 1020 – English II ................................................... 3
- CO/M 1010 – Public Speaking -OR- CO/M 1030 – Interpersonal Communication .................. 3
- One course from MATH 1000 or higher ................................ 3
- Physical, Biological, or Earth Laboratory Science ........................ 4
- Social Science -OR- Humanities/Fine Arts Elective ................. 3
- Total credit hours required ................................................. 64

Certificate

RECOMMENDED COURSES:

FIRE 1501 – Principles of Emergency Services ......................... 3
FIRE 2800 – Fire Academy (if students are already at theFFII level or higher, FIRE 2800 is not required providing proof of certification and program manager approval) .......... 8
EMT 1500 – Emergency Medical Technician Basic (EMT-B) (if students are already EMT-B certified, EMT 1500 is not required providing proof of certification and program manager approval) .......................... 6

FIRE SCIENCE ELECTIVES:

Students must complete a minimum of 16 credits from the following:

- FIRE 1510 – Firefighting Strategy and Tactics I .......................... 3
- FIRE 1625 – Fire Protection Hydraulics and Water Supply .......... 3
- FIRE 1700 – Introduction to Fire Prevention ............................ 3
- FIRE 1725 – Fire Protection Systems ..................................... 3
- FIRE 1760 – Building Construction ..................................... 3
- FIRE 1810 – Introduction to Wildland Firefighting ................... 4
- FIRE 1825 – Fire Behavior and Combustion ........................... 3
- FIRE 2610 – Chemical of Hazardous Materials .................... 3
- FIRE 2970 – Firefighter Field Experience ............................. 4
- GEOG 1490 – Introduction to Meteorology ............................ 4
- GEOG 1490 – Mobile Mapping GIS ...................................... 1
- PEAC 1295 – Individualized Exercise Programs (Firefighter Conditioning) ........ 1

Total credits required ........................................................................ 33

General Studies

The Associate of Arts degree in general studies program is recommended for students who have not decided upon a particular field of study or who have identified a transfer institution for which a curriculum needs to be tailored to a particular transfer curriculum. Additionally, the general studies curriculum is designed to allow a maximum level of flexibility for students to change majors, either to a transfer program or an occupational program with a minimum loss of credits. Also, the program, through its structure, will assist students in making informed decisions concerning their educational goals. Students completing this program will have a solid educational foundation to transfer to another institution to complete their baccalaureate degree or to enter the world of work.

GENERAL EDUCATION REQUIREMENTS

- ENGL 1010 – English I: Composition .................................. 3
- ENGL 1020 – English II ................................................... 3
- CO/M 1010 – Public Speaking -OR- CO/M 1030 – Interpersonal Communication .................. 3
- Mathematics (MATH 1000 or higher, excluding MATH 1510) 3-5
- Social Sciences (any two courses) ........................................ 3
- Arts and Humanities (two different disciplines) ...................... 6
- Lab Science ........................................................................ 4
- Computer Literacy ........................................................... 1-3
- Physical Education Activity .................................................. 1

Discipline Specific Electives

Arts and Humanities or Social Sciences .................................... 3
Business (ACCT, BADM, BUSN, MGT) .................................. 3
Science/Mathematics/Statistics/Computer ................................. 3-4

General College Electives ....................................................... 16-22

Total minimum credit hours required ......................................... 64

Note: Courses below the 1000 level and ENGL 1001 may not transfer to other institutions.
General Studies in Business

The Associate of Applied Science degree in General Studies in Business is designed to prepare students for employment in businesses and non-profit organizations and is not designed for transfer to four-year institutions. This program of study provides students with a broad-based understanding of the business field.

I. Required Business Courses

ACCT 2010 – Principles of Accounting I .............................................. 3
BADM 1000 – Introduction to Business .............................................. 3
MGT 2100 – Principles of Management .............................................. 3
BUSN 2000 – International Business .............................................. 3
COSC 1200 – Computer Information Systems .................................. 3
BADM 2010 – Business Law I ......................................................... 3
BADM 1020 – Business Communication ........................................... 3
BADM 1021 – Customer Service I .................................................... 1
BADM 1022 – Customer Service II .................................................... 1
BADM 1031 – Personal Financial Planning ....................................... 1
BADM 1032 – Risk and Credit Management ..................................... 1
BADM 1033 – Investment/Retirement Planning .................................. 1
IMGT 2400 – Introduction to Information Management (required minimum grade of C in this capstone course) ........................................ 3

II. General Education Requirements

ENGL 1010 – English I: Composition .................................................. 3
ENGL 1020 – English II ...................................................................... 3
ECON 1200 – Economics, Law and Government .................................. 3
CO/M 1010 – Public Speaking -OR- CO/M 1030 – Interpersonal Communication .................................................. 3
ECON 1200 – Economics, Law and Government .................................. 3
CO/M 1010 – Public Speaking -OR- CO/M 1030 – Interpersonal Communication .................................................. 3

III. Additional Business course work from A, B, C, D, or E below

Additionally, students must take courses from at least three of the following areas for a minimum of 19 credit hours and within an area students must take at least two courses:

A. Accounting (courses beginning with the ACCT or ACTA prefix)
B. Business Management (courses beginning with the MGT or BADM prefix)
C. Economics (courses beginning with the ECON prefix)
D. Entrepreneurship
ENTR 1500 – Successful Entrepreneurship
ENTR 1510 – Analyzing Business Opportunities
ENTR 1520 – Creating a Business Plan
ENTR 1530 – Accounting for Entrepreneurs
ENTR 1540 – Marketing for Entrepreneurs
ENTR 1590 – Entrepreneurial Leadership I
ENTR 2500 – Small Business Operations Management
ENTR 2520 – Legal Issues for Entrepreneurs
ENTR 2530 – Funding Sources for Entrepreneurs
ENTR 2540 – Small Business Financial Management
ENTR 2590 – Entrepreneurial Leadership II
BADM 2120 – Financing a Small Business
E. Marketing (courses beginning with the MKT prefix)

Total minimum credit hours required .................................................................................................................. 64-65

General Studies in Fine Arts and Humanities

The general studies Associate of Arts in Fine Arts and Humanities degree program is recommended for students who want to focus in these creative areas of study, or who need this concentration to transfer to another educational institution or for employment enhancement. This program provides basic knowledge and skills needed to succeed in upper-level specialty courses, and the curriculum provides flexibility so students may study in several related areas, exploring their individual interests. Students are encouraged to work with an advisor to select appropriate transfer courses.

COLLEGE REQUIREMENTS

POLS 1000 – American and Wyoming Government -OR-
HIST 1211 – U.S. to 1865 -OR-
HIST 1221 – U.S. from 1865 -OR-
HIST 1251 – Wyoming History -OR-
ECON 1200 – Economics, Law, and Government .................................. 3
ENGL 1010 – English I: Composition .................................................. 3
ENGL 1020 – English II ...................................................................... 3
CO/M 1010 – Public Speaking -OR- CO/M 1030 – Interpersonal Communication .................................................. 3
Arts and Humanities Elective .......................................................... 3

Social Science Elective (excluding state statutory requirement) ............. 6
Mathematics (MATH 1000 or higher excluding MATH 1510) ................. 3-4
Physical, Biological, or Earth Laboratory Science Elective ................... 4
Computer Literacy Elective .............................................................. 1-3
Physical Education Activity (students should take PEAC 1295 if transferring to the University of Wyoming) ......................... 1

PROGRAM REQUIREMENTS

Courses in major areas of concentration and electives as indicated in specific programs of study or in consultation with advisor.

Fine Arts (Art, Music, Theater) .......................................................... 9
Humanities (HUMN) ........................................................................ 3
Philosophy ....................................................................................... 3
Literature (ENGL 2000 level) ............................................................. 3
Mass Media/Multimedia ................................................................. 3
Foreign Language or Electives ....................................................... 8-9

Total minimum credit hours required ................................................. 64-65
General Studies in Science/Health Science

The general studies Associate of Science (A.S.) degree program is recommended for students who desire a science generalist curriculum. The curriculum provides flexibility in order to address individual learning needs within the requirements of the college's associate degree with a minimum loss of credit when transferring. Because of the varied directions students can take in the fields of science and health, they are urged to work closely with their advisor in outlining a course of study that will meet their needs within the college's degree requirements.

I. General Education Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication and Information Literacy</td>
<td></td>
</tr>
<tr>
<td>ENGL 1010 – English I: Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1020 – English II</td>
<td>3</td>
</tr>
<tr>
<td>CO/M 1010 – Public Speaking -OR-</td>
<td>3</td>
</tr>
<tr>
<td>CO/M 1030 – Interpersonal Communication</td>
<td></td>
</tr>
<tr>
<td>Mathematics and Quantitative Reasoning</td>
<td></td>
</tr>
<tr>
<td>Two math courses from MATH 1400 or higher</td>
<td></td>
</tr>
<tr>
<td>MATH 1400 or higher (excluding MATH 1510) -OR-</td>
<td></td>
</tr>
<tr>
<td>Statistics</td>
<td>7-8</td>
</tr>
<tr>
<td>Cultural, Historical, Political, and Social Development</td>
<td></td>
</tr>
<tr>
<td>POLS 1000 – American and Wyoming Government -OR-</td>
<td></td>
</tr>
<tr>
<td>HIST 1211 – U.S. to 1865 -OR-</td>
<td></td>
</tr>
<tr>
<td>HIST 1221 – U.S. from 1865 -OR-</td>
<td></td>
</tr>
<tr>
<td>HIST 1251 – Wyoming History -OR-</td>
<td></td>
</tr>
<tr>
<td>ECON 1200 – Economics, Law, and Government</td>
<td>3</td>
</tr>
<tr>
<td>Social Science Elective</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts/Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>Scientific Processes</td>
<td></td>
</tr>
<tr>
<td>Lab Science (physical, biological, or Earth lab science)</td>
<td>4</td>
</tr>
<tr>
<td>Computer Literacy</td>
<td>1-3</td>
</tr>
<tr>
<td>Physical Wellness (physical education activity)</td>
<td>1</td>
</tr>
<tr>
<td>II. Program Requirements</td>
<td></td>
</tr>
<tr>
<td>Four additional lab science courses -OR-</td>
<td></td>
</tr>
<tr>
<td>Three additional lab science courses -AND-</td>
<td></td>
</tr>
<tr>
<td>One additional math course</td>
<td>15-17</td>
</tr>
<tr>
<td>III. College Electives</td>
<td>13-17</td>
</tr>
<tr>
<td>Total minimum credit hours required</td>
<td>64</td>
</tr>
</tbody>
</table>

General Studies in Social Sciences

The general studies Associate of Arts in Social Sciences degree program is recommended for students who need concentrated social sciences courses to transfer to another educational institution or for employment enhancement. This course of study provides basic knowledge and skills students need to be successful in upper-level specialty courses. The curriculum provides flexibility in order to individualize learning needs within the requirements of the college's associate's degree with a minimum loss of credit when transferring. Completion of this course of study earns an Associate of Arts degree. Because of the varied directions students can take in the field of social science, they are urged to work closely with their advisor in outlining a course of study that will meet their needs, especially if they plan to transfer into a specific discipline.

I. General Education Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication and Information Literacy</td>
<td></td>
</tr>
<tr>
<td>ENGL 1010 – English I: Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1020 – English II</td>
<td>3</td>
</tr>
<tr>
<td>CO/M 1010 – Public Speaking -OR-</td>
<td>3</td>
</tr>
<tr>
<td>CO/M 1030 – Interpersonal Communication</td>
<td></td>
</tr>
<tr>
<td>Mathematics and Quantitative Reasoning</td>
<td></td>
</tr>
<tr>
<td>MATH 1000 – Problem Solving</td>
<td>3</td>
</tr>
<tr>
<td>Cultural, Historical, Political, and Social Development</td>
<td></td>
</tr>
<tr>
<td>POLS 1000 – American and Wyoming Government -OR-</td>
<td></td>
</tr>
<tr>
<td>HIST 1211 – U.S. to 1865 -OR-</td>
<td></td>
</tr>
<tr>
<td>HIST 1221 – U.S. from 1865 -OR-</td>
<td></td>
</tr>
<tr>
<td>HIST 1251 – Wyoming History -OR-</td>
<td></td>
</tr>
<tr>
<td>ECON 1200 – Economics, Law, and Government</td>
<td>3</td>
</tr>
<tr>
<td>Social Science Electives</td>
<td>6</td>
</tr>
<tr>
<td>Fine Arts/Humanities (two courses in two different disciplines)</td>
<td>6</td>
</tr>
<tr>
<td>Scientific and Technical Processes</td>
<td></td>
</tr>
<tr>
<td>Lab Science (physical, biological, or Earth laboratory science)</td>
<td>4</td>
</tr>
<tr>
<td>Computer Literacy</td>
<td>1-3</td>
</tr>
<tr>
<td>Physical Wellness (physical education activity)</td>
<td>1</td>
</tr>
<tr>
<td>II. Courses in Major Area of Concentration</td>
<td></td>
</tr>
<tr>
<td>This degree is designed for students to experience a wide range of academic areas. Students select courses from the following disciplines: American studies, anthropology, criminal justice, economics, geography, history, political science, psychology, and sociology.</td>
<td>18</td>
</tr>
<tr>
<td>STAT 2070 – Introductory Statistics for the Social Sciences</td>
<td>4</td>
</tr>
<tr>
<td>III. College Electives</td>
<td>7-9</td>
</tr>
<tr>
<td>Total minimum credit hours required</td>
<td>29-31</td>
</tr>
</tbody>
</table>
Government Studies

The Associate of Arts degree in government studies is committed to the study of political influence and political institutions in both American and international contexts. LCCC’s location in Wyoming’s capital city of Cheyenne affords opportunities for students to study government “up close and personal.” Government studies courses at LCCC (which are listed as Political Science or POLS courses) provide the basis for either entry-level careers in government or preparation to transfer to a four-year program in political science or related fields.

The government studies program at LCCC is divided into two tracks: 1) American and comparative government, which is more theoretical in scope, and 2) public policy and administration, which has a more practical focus. Students must complete the requirements of one of the tracks to graduate. Emphasis in both tracks is on the multidisciplinary nature of social problems, governmental responses to those problems, and on service learning opportunities.

American and Comparative Government

First Year

Fall Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>English I: Composition</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 1000</td>
<td>World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1000</td>
<td>Problem Solving</td>
<td>3-4</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American and Wyoming Government</td>
<td>3</td>
</tr>
<tr>
<td>Computer Literacy (POLS 1005 recommended)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>POLS 1200</td>
<td>Non-Western Political Cultures</td>
<td>3</td>
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</tbody>
</table>

Spring Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1020</td>
<td>English II</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 1010</td>
<td>Introduction to Physical Geography</td>
<td>4</td>
</tr>
<tr>
<td>STAT 2070</td>
<td>Introductory Statistics for the Social Sciences</td>
<td>4</td>
</tr>
<tr>
<td>POLS 2070</td>
<td>Current Issues in American Government</td>
<td>3</td>
</tr>
<tr>
<td>POLS 2310</td>
<td>Introduction to International Relations</td>
<td>3</td>
</tr>
</tbody>
</table>

Second Year

Fall Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO/M 1010</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1010</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1110</td>
<td>Western Civilization I -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1211</td>
<td>U.S. from 1865</td>
<td>3</td>
</tr>
<tr>
<td>POLS 2070</td>
<td>Politics of State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td>SOC 1000</td>
<td>Sociological Principles</td>
<td>3</td>
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<tr>
<td>Physical Education Activity</td>
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</tbody>
</table>

Spring Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 1020</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1120</td>
<td>Western Civilization II -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1221</td>
<td>U.S. from 1865</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 2301</td>
<td>Ethics</td>
<td>3</td>
</tr>
<tr>
<td>POLS 2128</td>
<td>Terrorism</td>
<td>3</td>
</tr>
<tr>
<td>POLS 2470</td>
<td>Government Internship I</td>
<td>3</td>
</tr>
<tr>
<td>Arts and Humanities Elective</td>
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</table>

Total minimum credit hours required 67-68

Public Policy and Administration

First Year

Fall Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGL 1010</td>
<td>English I: Composition</td>
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<tr>
<td>MATH 1000</td>
<td>Problem Solving</td>
<td>3-4</td>
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<tr>
<td>POLS 1000</td>
<td>American and Wyoming Government</td>
<td>3</td>
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<tr>
<td>Computer Literacy (POLS 1005 recommended)</td>
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<tr>
<td>Public Policy Administration Electives*</td>
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<tr>
<td>Arts and Humanities Elective (excluding philosophy)</td>
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Spring Semester

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<tr>
<td>ENGL 1020</td>
<td>English II</td>
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<tr>
<td>GEOG 1010</td>
<td>Introduction to Physical Geography</td>
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<tr>
<td>STAT 2070</td>
<td>Introductory Statistics for the Social Sciences</td>
<td>4</td>
</tr>
<tr>
<td>POLS 2410</td>
<td>Introduction to Public Administration</td>
<td>3</td>
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<tr>
<td>Public Policy Administration Electives*</td>
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Second Year

Fall Semester

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<tr>
<td>CO/M 1010</td>
<td>Public Speaking</td>
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<tr>
<td>ECON 1010</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1110</td>
<td>Western Civilization I -OR-</td>
<td>3</td>
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<tr>
<td>HIST 1211</td>
<td>U.S. from 1865</td>
<td>3</td>
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<tr>
<td>PHIL 2301</td>
<td>Ethics</td>
<td>3</td>
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<tr>
<td>POLS 2128</td>
<td>Terrorism</td>
<td>3</td>
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<tr>
<td>POLS 2470</td>
<td>Government Internship I</td>
<td>3</td>
</tr>
<tr>
<td>Arts and Humanities Elective (excluding philosophy)</td>
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Total minimum credit hours required 67-68

*Consult with advisor.

Students planning to transfer to the public administration program at Regis University should complete the following course work:

Required:

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BADM 1000</td>
<td>Introduction to Business</td>
<td>3</td>
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<tr>
<td>MGT 1000</td>
<td>Introduction to Supervision</td>
<td>3</td>
</tr>
<tr>
<td>MGT 2100</td>
<td>Principles of Management</td>
<td>3</td>
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<tr>
<td>PHIL 1000</td>
<td>Introduction to Philosophy</td>
<td>3</td>
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Electives (at least 6 hours):

<table>
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<th>Title</th>
<th>Credits</th>
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<tr>
<td>PHIL 2311</td>
<td>Philosophy of Religion</td>
<td>3</td>
</tr>
<tr>
<td>RELI 1150</td>
<td>History and Philosophy of Islam</td>
<td>3</td>
</tr>
<tr>
<td>RELI 2110</td>
<td>Introduction to the Old Testament</td>
<td>3</td>
</tr>
<tr>
<td>RELI 2150</td>
<td>New Testament Survey</td>
<td>3</td>
</tr>
<tr>
<td>RELI 2225</td>
<td>History of Christianity</td>
<td>3</td>
</tr>
</tbody>
</table>
Health

For information on health-related programs, please see the Biology program, the General Studies in Science/Health Science program, or the specific degree—dental hygiene, diagnostic medical sonography, emergency medical services—paramedics, medical laboratory technician, nursing, physical therapist assistant, radiography, or surgical technology.

Heating, Ventilation, and Air Conditioning/Refrigeration

The energy efficient Heating, Ventilation, and Air Conditioning/Refrigeration (HVAC/R) program is designed for students who want to gain valuable industry skills and also want to pursue a basic academic foundation. The Associate of Applied Science degree includes general education requirements; HVAC/R installation, repair, and maintenance knowledge and skills; thermal dynamics, fluid dynamics, and electrical topics—all of which are combined to provide the groundwork for direct industry employment. For individuals desiring faster entry into the workforce, a Basic HVAC/R Technician Certificate is offered.

**Basic HVAC/R Technician Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
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<tr>
<td>MATH 1000</td>
<td>Problem Solving</td>
<td>3</td>
</tr>
<tr>
<td>COSC 1200</td>
<td>Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>IST 1510</td>
<td>Introduction to Industrial Tools</td>
<td>1</td>
</tr>
<tr>
<td>IST 1520</td>
<td>Introduction to Industrial Safety</td>
<td>1</td>
</tr>
<tr>
<td>HVAC 1600</td>
<td>Mechanical Piping Systems</td>
<td>3</td>
</tr>
<tr>
<td>IST 1710</td>
<td>DC Electricity</td>
<td>2</td>
</tr>
<tr>
<td>IST 1711</td>
<td>DC Electrical Circuits</td>
<td>1</td>
</tr>
<tr>
<td>IST 1712</td>
<td>AC Electricity</td>
<td>2</td>
</tr>
<tr>
<td>IST 1713</td>
<td>AC Electrical Circuits</td>
<td>1</td>
</tr>
<tr>
<td>HVAC 1610</td>
<td>Heating and Air Conditioning Principles</td>
<td>3</td>
</tr>
<tr>
<td>IST 1780</td>
<td>Electrical Motors</td>
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<tr>
<td>IST 1781</td>
<td>Electric Motor Circuits</td>
<td>1</td>
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<tr>
<td>IST 1770</td>
<td>Electrical Motor Controls</td>
<td>2</td>
</tr>
<tr>
<td>IST 1771</td>
<td>Electrical Motor Control Circuits</td>
<td>1</td>
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<tr>
<td>HVAC 1620</td>
<td>Refrigeration Circuit Components</td>
<td>3</td>
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<tr>
<td>HVAC 1630</td>
<td>Energy Efficient Residential Heating Systems</td>
<td>4</td>
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**Associate of Applied Science Degree**

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MATH 1000</td>
<td>Problem Solving</td>
<td>3</td>
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<tr>
<td>IST 1510</td>
<td>Introduction to Industrial Tools</td>
<td>1</td>
</tr>
<tr>
<td>IST 1520</td>
<td>Introduction to Industrial Safety</td>
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<tr>
<td>HVAC 1600</td>
<td>Mechanical Piping Systems</td>
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<tr>
<td>IST 1710</td>
<td>DC Electricity</td>
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<tr>
<td>IST 1711</td>
<td>DC Electrical Circuits</td>
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</tr>
<tr>
<td>IST 1712</td>
<td>AC Electricity</td>
<td>2</td>
</tr>
<tr>
<td>IST 1713</td>
<td>AC Electrical Circuits</td>
<td>1</td>
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<tr>
<td>HVAC 1610</td>
<td>Heating and Air Conditioning Principles</td>
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**Second Semester**

<table>
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<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ENGL 1010</td>
<td>English I: Composition</td>
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<tr>
<td>CMAP 1650</td>
<td>Introduction to Networking</td>
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</tr>
<tr>
<td>Physical Education Activity Elective</td>
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<tr>
<td>IST 1780</td>
<td>Electrical Motors</td>
<td>2</td>
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<td>IST 1781</td>
<td>Electric Motor Circuits</td>
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<td>IST 1770</td>
<td>Electrical Motor Controls</td>
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<td>IST 1771</td>
<td>Electrical Motor Control Circuits</td>
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<tr>
<td>HVAC 1650</td>
<td>Residential Air Conditioning Systems</td>
<td>3</td>
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<tr>
<td>HVAC 1630</td>
<td>Energy Efficient Residential Heating Systems</td>
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Internship (mid-semester, summer break)

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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<tr>
<td>HVAC 1970</td>
<td>Energy Audit Skills</td>
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</table>
THIRD SEMESTER
PHYS 1050 – Concepts of Physics (MATH 0930 is a prerequisite for this course) .......... 4
POLS 1000 – American and Wyoming Government -OR-
HIST 1211 – U.S. to 1865 -OR-
HIST 1221 – U.S. from 1865 -OR-
HIST 1251 – Wyoming History -OR-
ECON 1200 – Economics, Law, and Government ............... 3
HVAC 1640 – Automatic Building Controls ................................ 3
HVAC 1620 – Refrigeration Circuit Components .................... 3
HVAC 1660 – HVAC Distribution Systems .............................. 3

FOURTH SEMESTER
CO/M 1030 – Interpersonal Communication ..................... 3
Choose any one course from Social Sciences
or Arts and Humanities ................................................... 3
HVAC 1670 – Light Commercial Refrigeration Systems ...... 3
HVAC 1680 – Energy Efficient Air Conditioning Units .... 3
HVAC 1690 – Advanced Air Conditioning Skills ................. 3

Total credit hours required .................................................................. 70

History
The Associate of Arts degree in history is designed to prepare students for advancement toward a bachelor’s degree at a four-year educational institution. By successfully completing the following curriculum, students are prepared to enter the University of Wyoming as juniors. A degree in history offers a solid liberal arts education, thereby preparing students for academic advancement in program areas other than history. Students should consult with an advisor in order to ensure that courses are appropriate and transferable.

A major in history opens career possibilities in such areas as historical and archival research, museology, and historic site restoration and interpretation. A number of state and federal agencies employ historians in order to collect, preserve, record, interpret, and display elements of this country’s heritage. Advanced degrees are usually prerequisites for these types of positions. An extensive background in history is also a must for many secondary social studies teachers.

Students who enter the program might be unable to take the courses in the order suggested. In most instances, this does not pose a problem. Students should consult with the history advisor concerning any questions or changes.

GENERAL EDUCATION CORE
Communication and Information Literacy
ENGL 1010 – English I: Composition ................................ 3
ENGL 1020 – English II ...................................................... 3
CO/M 1010 – Public Speaking -OR-
CO/M 1030 – Interpersonal Communication ..................... 3

Mathematics and Quantitative Reasoning
MATH 1000 or higher (excluding MATH 1510) ......................... 3

Cultural, Historical, Political, and Social Development
Wyoming Statutory Requirement:
POLS 1000 – American and Wyoming Government -OR-
HIST 1211 – U.S. to 1865 -OR-
HIST 1221 – U.S. from 1865 -OR-
HIST 1251 – Wyoming History -OR-
ECON 1200 – Economics, Law, and Government ............... 3
Social Science Elective ............................................................ 6
Fine Arts/Humanities Elective (one foreign language class) 6

Scientific and Technical Processes
Lab science (physical, biological, or Earth lab science)........ 4

Computer Literacy ................................................................ 1-3

Physical Wellness (physical education activity) ............... 1

General Education Core Total ................................................. 33-35

PROGRAM REQUIREMENTS
HIST 1211 – U.S. to 1865* .................................................. 3
HIST 1221 – U.S. from 1865* .............................................. 3
HIST 1110 – Western Civilization I ..................................... 3
HIST 1120 – Western Civilization II ................................. 3
HIST 2290 – History of North American Indians -OR-
HIST 1251 – Wyoming History* ........................................ 3
POLS 1000 – American and Wyoming Government* ........ 3
ECON 1000 – Survey of Economics -OR-
ECON 1010 – Principles of Macroeconomics ................... 3
Foreign Language ................................................................ 4

Program Requirements Total .................................................. 22-25

College Electives (Suggested electives: POLS 1200,
POLS 2310, ANTH 2210, GEOG 1020, ECON 1020,
HIST 1150, HIST 1290, HIST 2020, HIST 2120,
HIST 2225) ........................................................................ 7-9

Total minimum credit hours required ...................................... 64

* One of these classes may have been taken to fulfill the Wyoming statutory requirement.
Religious Studies Option

This degree option provides students with the opportunity to take a range of courses in the academic study of religions. Religious studies courses serve not only as core courses within the history Associate of Arts degree programs but also may be applied toward meeting social sciences and humanities general education requirements.

I. General Education Distribution

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>POLS</td>
<td>American and Wyoming Government OR</td>
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<tr>
<td>HIST</td>
<td>U.S. to 1865 OR</td>
<td>3</td>
</tr>
<tr>
<td>HIST</td>
<td>U.S. from 1865 OR</td>
<td>3</td>
</tr>
<tr>
<td>HIST</td>
<td>Wyoming History OR</td>
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<tr>
<td>ECON</td>
<td>Economics, Law, and Government</td>
<td>3</td>
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<tr>
<td>ENGL</td>
<td>English I: Composition</td>
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<tr>
<td>ENGL</td>
<td>English II</td>
<td>3</td>
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<tr>
<td>CO/M</td>
<td>Public Speaking OR</td>
<td>3</td>
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<tr>
<td>CO/M</td>
<td>Interpersonal Communication</td>
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<tr>
<td>HIST</td>
<td>Western Civilization I</td>
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<tr>
<td>HIST</td>
<td>Western Civilization II</td>
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<tr>
<td>PHYS/BIO/ET</td>
<td>Laboratory Science</td>
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<tr>
<td>MATH</td>
<td>1000 or higher (excluding MATH 1510)</td>
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<td>PHIL</td>
<td>Philosophy of Religion</td>
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<td>COMPUTER LITERACY ELECTIVE</td>
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II. Concentration Area Courses

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<tr>
<td>RELI</td>
<td>History and Philosophy of Islam</td>
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<tr>
<td>RELI</td>
<td>Introduction to the Old Testament</td>
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<tr>
<td>RELI</td>
<td>New Testament Survey</td>
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<tr>
<td>HIST</td>
<td>History of Christianity</td>
<td>3</td>
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</tbody>
</table>

Total minimum credit hours required: 64

Homeland Security

Homeland Security is about protecting people, property, and infrastructure while minimizing economic impacts of natural and man-made crises. The Homeland Security associate of science degree and certificate programs prepare students for careers in government, non-profit organizations, and the private sector. The courses prepare students for jobs in Homeland Security as well as provide information and a depth of understanding in security that will be useful in any career in turbulent times. This program will be of significant value to students employed in, or seeking employment in, first responder disciplines such as law enforcement, fire services, emergency medical services, and public health.

Associate of Science

First Year

FALL SEMESTER

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGL</td>
<td>English I: Composition</td>
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<tr>
<td>MATH</td>
<td>Pre-Calculus Algebra</td>
<td>4</td>
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<tr>
<td>HSEC</td>
<td>Introduction to Homeland Security</td>
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<tr>
<td>HSEC</td>
<td>School Safety and Homeland Security</td>
<td>3</td>
</tr>
<tr>
<td>CO/M</td>
<td>Public Speaking OR</td>
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<tr>
<td>CO/M</td>
<td>Interpersonal Communication</td>
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<tr>
<td>PHYS/BIO/ET</td>
<td>Laboratory Science</td>
<td>4</td>
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<tr>
<td>SOCIAL SCIENCE ELECTIVE</td>
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SPRING SEMESTER

<table>
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<tr>
<td>ENGL</td>
<td>English II</td>
<td>3</td>
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<tr>
<td>STAT</td>
<td>Statistical Concepts--Business</td>
<td>4</td>
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<tr>
<td>ARTS/HUMANITIES ELECTIVE</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>POLS</td>
<td>American and Wyoming Government OR</td>
<td>3</td>
</tr>
<tr>
<td>HIST</td>
<td>U.S. to 1865 OR</td>
<td>3</td>
</tr>
<tr>
<td>HIST</td>
<td>U.S. from 1865 OR</td>
<td>3</td>
</tr>
<tr>
<td>HSEC</td>
<td>Homeland Security and Critical Infrastructure: Facilities and Government</td>
<td>3</td>
</tr>
<tr>
<td>HSEC</td>
<td>Homeland Security and Critical Infrastructure: Facilities and Networks</td>
<td>3</td>
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</table>

Second Year

FALL SEMESTER

Physical, Biological, or Earth Lab Science | 4 |
Social Science Elective | 3 |
HSEC | Terrorism and Counterterrorism | 3 |
HSEC | Homeland Security and First Responders | 3 |
HSEC | Terrorism and Weapons of Mass Destruction | 3 |

SPRING SEMESTER

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tr>
<td>COSC</td>
<td>Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>HSEC</td>
<td>Homeland Security Legal, Policy, and Privacy Issues</td>
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</tr>
<tr>
<td>HSEC</td>
<td>Homeland Security and Emergency Management Partnerships</td>
<td>3</td>
</tr>
<tr>
<td>HSEC</td>
<td>Homeland Security and Law Enforcement</td>
<td>3</td>
</tr>
<tr>
<td>HSEC</td>
<td>Cyber-Terrorism</td>
<td>3</td>
</tr>
</tbody>
</table>

Total credit hours required: 64
### Certificate

**FALL SEMESTER**
- HSEC 1000 – Introduction to Homeland Security .................. 3
- ENGL 1010 – English I: Composition ................................ 3
- HSEC Electives* ............................................................. 6

**SPRING SEMESTER**
- HSEC 1015 – Homeland Security and Critical Infrastructure, Facilities and Networks ......................................................... 3
- BADM 1020 – Business Communication .......................................... 3

Total credit hours required .................................................................. 24

*Homeland Security Electives (Choose two)
- HSEC 1001 – School Safety and Homeland Security ............ 3
- HSEC 1002 – Terrorism and Counterterrorism .................. 3
- HSEC 1003 – Homeland Security and First Responders ........ 3
- HSEC 2004 – Homeland Security and Law Enforcement ...... 3
- HSEC 2006 – Terrorism and Weapons of Mass Destruction .......... 3
- HSEC 2010 – Cyber-Terrorism .............................................. 3

### Human Development

Human development courses provide students with opportunities to acquire personal and professional skills to assist them in functioning in the college environment and/or in life. Major emphases are placed on developing study skills, coping with change, crisis, and stress, and setting personal and career goals. Human development courses count as credit toward graduation from LCCC. Students should contact their advisors for specific application to their programs. Certain courses may not transfer to other colleges and universities.

- HMDV 1000 – Freshman Seminar ........................................ 3
- HMDV 1050 – Study Skills ................................................ 3
- HMDV 1200 – Academic and Career Orientation .................. 2
- HMDV 1260 – Students on Purpose .................................... 1
- HMDV 1270 – Stress Management ...................................... 2
- HMDV 1275 – Foundations of Leadership ............................ 1
- HMDV 1360 – Self-Esteem Enhancement ............................ 1
- HMDV 1370 – Becoming a Love and Logic Parent ............... 1
Human Services

The Human Services field is broadly defined with professionals having a wide variety of job titles. This person provides services to individuals and families in need of assistance and can serve a variety of roles. Human services professionals have the potential to be employed in various community agencies, such as group and halfway homes, mental health centers, family, child, and youth service agencies, and programs for substance abuse. Human services workers may also be known by the following occupational titles: case worker, family support worker, social service liaison, residential counselor, child abuse worker, intake interviewer, life skills instructor, and drug/alcohol abuse counselor.

Competencies necessary for human services workers include understanding human systems; skills in identifying and selecting interventions; planning, implementing, and evaluating interventions; understanding conditions that promote healthy functioning of human systems; and processing skills including oral and interpersonal communication and time management.

Laramie County Community College is in the process of developing an articulation agreement with the social work program at the University of Wyoming. Please work closely with an advisor.

Completion of the following program leads to an Associate of Arts degree.

GENERAL EDUCATION CORE

Communication and Information Literacy
ENGL 1010 – English I: Composition ......................... 3
ENGL 1020 – English II ................................................. 3
CO/M 1010 – Public Speaking -OR-
CO/M 1030 – Interpersonal Communication .................... 3

Mathematics and Quantitative Reasoning
MATH 1000 – Problem Solving ........................................ 3

Cultural, Historical, Political, and Social Development
POLS 1000 – American and Wyoming Government -OR-
HIST 1211 – U.S. to 1865 -OR-
HIST 1221 – U.S. from 1865 -OR-
HIST 1251 – Wyoming History -OR-
ECON 1200 – Economics, Law, and Government ............. 3
SOC 1000 – Sociological Principles .................................. 3
PSYC 1000 – General Psychology .................................... 3
Foreign Language (Spanish) -OR- .................................. 4
Sign Language (Speech Pathology and Audiology) .......... 4
Humanities (ART, ENGL, HUMN, MMMM, MUSC, PHIL, RELI, THEA) ........................................... 3

Scientific and Technical Processes
Lab Science (physical, biological, or Earth lab science) ........ 4

Computer Literacy .......................................................... 1-3

Physical Wellness (physical education activity) ................. 1

GENERAL COLLEGE ELECTIVES ........................................... 3-6

MAJOR CORE COURSES
EDST 2450 – Human Life Span Development .................. 3
HMSV 1010 – Orientation to Human Services ................. 3
HMSV 1060 – Case Management .................................... 3
HMSV 1110 – Ethics for Helping Professions ................... 3
HMSV 2000 – Human Services Administration ................. 3
HMSV 1200 – Field Experiences in Human Services I ........ 3
HMSV 2110 – Field Experiences in Human Services II ....... 4

A minimum of 64 hours is required for an Associate of Arts degree.

Addictionology Option

Students choosing to add the addictionology option must take all the courses for the Associate of Arts degree in Human Services in addition to the following courses:

PSYC 2050 – Introductory Counseling/Clinical Theories .... 3
PSYC 2210 – Drugs and Behavior ..................................... 3
PSYC 2330 – Psychology of Adjustment -OR-
PSYC 2340 – Abnormal Psychology .................................. 3
CNSL 2300 – Counseling Skills for Helping Professions .... 3
ADDN 1010 – Addictions Prevention ............................. 3
ADDN 2010 – Addictions Assessment ............................. 3
ADDN 2970 – Addictionology Internship ......................... 4
## Integrated Systems Technology

The Integrated Systems Technology (IST) certificate is designed for students who desire a career in industrial maintenance. This program provides the necessary skills and associated background knowledge to prepare for a career in a variety of industrial environments. It combines the fundamental skills of eleven core courses with a choice of concentration areas that include additional courses in electrical, mechanical, or heating, ventilation, and air conditioning (HVAC) specialization areas.

### CORE REQUIREMENTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST 1520</td>
<td>Introduction to Industrial Safety</td>
<td>1</td>
</tr>
<tr>
<td>IST 1530</td>
<td>Introduction to Effective Workplace Skills</td>
<td>1</td>
</tr>
<tr>
<td>IST 1540</td>
<td>Introduction to Industrial Prints and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Computer-Aided Drafting</td>
<td></td>
</tr>
<tr>
<td>IST 1550</td>
<td>Fundamentals of Industrial Piping Systems</td>
<td></td>
</tr>
<tr>
<td>IST 1551</td>
<td>Industrial Piping Systems</td>
<td></td>
</tr>
<tr>
<td>IST 1600</td>
<td>Fundamentals of Fluid Power</td>
<td></td>
</tr>
<tr>
<td>IST 1611</td>
<td>Fluid Power Circuits</td>
<td></td>
</tr>
<tr>
<td>IST 1700</td>
<td>Fundamentals of DC Electricity</td>
<td></td>
</tr>
<tr>
<td>IST 1711</td>
<td>DC Electrical Circuits</td>
<td></td>
</tr>
<tr>
<td>IST 1800</td>
<td>Fundamentals of Programmable Logic Controllers</td>
<td></td>
</tr>
<tr>
<td>IST 1801</td>
<td>Programmable Logic Controller Circuits</td>
<td></td>
</tr>
</tbody>
</table>

Total Core Credit Hours: 11

### CONCENTRATION AREA REQUIREMENTS

(Students choose only one concentration area.)

#### Electrical

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST 1702</td>
<td>Fundamentals of AC Electricity</td>
<td></td>
</tr>
<tr>
<td>IST 1713</td>
<td>AC Electrical Circuits</td>
<td></td>
</tr>
<tr>
<td>IST 1750</td>
<td>Fundamentals of Electric Motors</td>
<td></td>
</tr>
<tr>
<td>IST 1751</td>
<td>Electric Motor Circuits</td>
<td></td>
</tr>
</tbody>
</table>

Additional credits for electrical concentration area: 4

#### Mechanical

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST 1650</td>
<td>Fundamentals of Mechanical Drives</td>
<td></td>
</tr>
<tr>
<td>IST 1651</td>
<td>Mechanical Drive Installations</td>
<td></td>
</tr>
<tr>
<td>IST 1652</td>
<td>Mechanical Drive Bearings</td>
<td></td>
</tr>
<tr>
<td>IST 1653</td>
<td>Mechanical Drive Bearing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Installation and Removal</td>
<td></td>
</tr>
</tbody>
</table>

Additional credits for mechanical concentration area: 4

#### Heating, Ventilation, and Air Conditioning (HVAC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST 1850</td>
<td>Fundamentals of Cooling</td>
<td></td>
</tr>
<tr>
<td>IST 1852</td>
<td>Refrigerant Handling</td>
<td></td>
</tr>
<tr>
<td>IST 1853</td>
<td>Refrigerant Leak Detection, Recovery, Evacuation,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Charging</td>
<td></td>
</tr>
<tr>
<td>IST 1860</td>
<td>Fundamentals of Heating</td>
<td></td>
</tr>
</tbody>
</table>

Additional credits for heating, ventilation, and air conditioning (HVAC) concentration area: 4

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## International Studies

The international studies program uses a broad multidisciplinary curriculum that allows students to study a region of the world or a global issue from multiple perspectives. This program draws on courses from anthropology, economics, foreign language, geography, history, political science, and sociology. The curriculum provides a strong substantive background in world affairs along with analytic and language skills to prepare students who wish to pursue additional study and careers in government, business, law, or education.

The Associate of Arts degree in international studies is designed to facilitate transfer of coursework to one of the many four-year programs in the region. A minimum of 64 hours is required for an Associate of Arts degree.

### First Year

#### FALL SEMESTER

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>English I: Composition</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 1000</td>
<td>World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1110</td>
<td>Western Civilization I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1000</td>
<td>Problem Solving</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American and Wyoming Government</td>
<td>3</td>
</tr>
<tr>
<td>STAT 2070</td>
<td>Introductory Statistics for the Physical Sciences</td>
<td>4</td>
</tr>
<tr>
<td>POLS 1200</td>
<td>Non-Western Political Cultures</td>
<td>3</td>
</tr>
</tbody>
</table>

Total credit hours required: 16

#### SPRING SEMESTER

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1020</td>
<td>English II</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1120</td>
<td>Western Civilization II</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 1010</td>
<td>Geography</td>
<td>4</td>
</tr>
<tr>
<td>CO/M 1010</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1010</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>POLS 2310</td>
<td>Introduction to International Relations</td>
<td>3</td>
</tr>
<tr>
<td>SOC 1000</td>
<td>Sociological Principles</td>
<td>3</td>
</tr>
</tbody>
</table>

Total credit hours required: 17

### Second Year

#### FALL SEMESTER

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language</td>
<td>Foreign Language I (any modern language)</td>
<td>4</td>
</tr>
<tr>
<td>CO/M 1010</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1010</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>POLS 2310</td>
<td>Introduction to International Relations</td>
<td>3</td>
</tr>
<tr>
<td>SOC 1000</td>
<td>Sociological Principles</td>
<td>3</td>
</tr>
</tbody>
</table>

Total credit hours required: 16

#### SPRING SEMESTER

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language</td>
<td>Foreign Language II (any modern language)</td>
<td>4</td>
</tr>
<tr>
<td>ANTH 1200</td>
<td>Introduction to Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1020</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>Physical</td>
<td>Education Activity</td>
<td>1</td>
</tr>
<tr>
<td>Elective</td>
<td>(BUSN 2000 recommended)</td>
<td>3</td>
</tr>
<tr>
<td>Arts and Humanities Elective</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Total credit hours required: 17

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Mass Media

The terms “journalism” and “mass communications” are umbrellas that span many career fields and interests. Students taking mass media classes often combine majors or minors in other fields to expand their career possibilities. Students are encouraged to take a broad base of general liberal arts courses that blend with the fundamental technical courses of media writing, editing, photography, broadcasting, and desktop publishing.

LCCC’s mass media curriculum provides the basic requirements for a variety of specialized areas offered at four-year institutions. Students are encouraged to experiment in both print and broadcast journalism. Print journalism provides a strong background in reporting and newswriting, desktop publishing, and photography using the latest equipment. The campus newspaper, Wingspan, and literary-arts magazine, High Plains Register, are produced entirely on campus by students, using their own fully equipped desktop publishing computer lab. Photographers enjoy the use of a film-processing darkroom and print lab. For additional experience, college cooperative work experience credit is offered for internships with local media outlets, advertising/public relations firms, nonprofit organizations, and government agencies.

Nonmajors can benefit from journalism classes, especially Introduction to Mass Media, Photography, Desktop Publishing, and Publications Production.

Because of the numerous directions students can take in the field of mass communications, they are urged to work closely with their advisor in outlining a course of study that will meet their needs in obtaining a job or in transferring to a four-year institution.

PROGRAM REQUIREMENTS

| MMMM 1000 – Introduction to Mass Media (Offered fall semester) | 3 |
| MMMM 1111 – Journalistic Writing (Offered fall semester) | 3 |
| MMMM 1370 – Publications Production I | 3 |
| MMMM 1375 – Publications Production II | 3 |
| MMMM 2100 – Reporting and Newswriting (Offered spring semester) | 3 |
| MMMM 2310 – Desktop Publishing | 3 |
| MMMM 2320 – Advanced Desktop Publishing (Offered spring semester) | 3 |
| MMMM 2408 – Digital Photography | 3 |
| Mass Media/Multimedia Electives | 4 |

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COLLEGE REQUIREMENTS

| CO/M 1010 – Public Speaking -OR- | 3 |
| CO/M 1030 – Interpersonal Communication | 3 |
| ENGL 1010 – English I: Composition | 3 |
| ENGL 1020 – English II | 3 |
| MATH 1000 – Problem Solving -OR- | 3-4 |
| MATH 1400 – Pre-Calculus Algebra | 3-4 |
| POLS 1000 – American and Wyoming Government -OR- | 3 |
| HIST 1211 – U.S. to 1865 -OR- | 3 |
| HIST 1221 – U.S. from 1865 -OR- | 3 |
| HIST 1251 – Wyoming History -OR- | 3 |
| ECON 1200 – Economics, Law, and Government | 3 |
| Art, Music, or Theater Elective | 3 |
| Humanities Electives (see advisor) | 6 |
| Physical Education Activity | 1 |
| Lab Science | 4 |
| Social Science Elective | 6-8 |

35-38

Total minimum credit hours required | 64
Multimedia Option

Students may select to concentrate on courses in the field of multimedia. Careers in media now demand that employees have a firm grasp of multiple technologies. The multimedia program will prepare students for these demands.

The multimedia degree will also give students a foundation to prepare them for career opportunities in electronic and computer communications including television and film production, World Wide Web design, production, and advertising, entertainment software production, news media publishing, computer-based training, advertising; 3-D animation, interactive media, desktop publishing, graphic design, and commercial art.

Using the college’s sophisticated multimedia computer lab, students learn the same software programs used in major productions for Hollywood, television, and computer games.

**PROGRAM REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMMM 1111 – Journalistic Writing</td>
<td>3</td>
</tr>
<tr>
<td>MMMM 2222 – Desktop Audio/Video Production</td>
<td>3</td>
</tr>
<tr>
<td>MMMM 2310 – Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>MMMM 2320 – Advanced Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>MMMM 2325 – Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>MMMM 2326 – Interactive Media</td>
<td>3</td>
</tr>
<tr>
<td>MMMM 1371 – Multimedia Productions I</td>
<td>3</td>
</tr>
<tr>
<td>MMMM 2408 – Digital Photography</td>
<td>3</td>
</tr>
<tr>
<td>MMMM 2410 – Introduction to Multimedia</td>
<td>3</td>
</tr>
<tr>
<td>Mass Media/Multimedia or INET Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>30</td>
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</tbody>
</table>

**COLLEGE REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1110 – Foundation: Two Dimension</td>
<td>3</td>
</tr>
<tr>
<td>CO/M 1010 – Public Speaking -OR-</td>
<td>3</td>
</tr>
<tr>
<td>CO/M 1030 – Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1010 – English I: Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1020 – English II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1000 – Problem Solving -OR-</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1400 – Pre-Calculus Algebra</td>
<td>3-4</td>
</tr>
<tr>
<td>POLS 1000 – American and Wyoming Government -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1211 – U.S. to 1865 -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1221 – U.S. from 1865 -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1251 – Wyoming History -OR-</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1200 – Economics, Law, and Government</td>
<td>3</td>
</tr>
<tr>
<td>Social Science Elective</td>
<td>6</td>
</tr>
<tr>
<td>Lab Science</td>
<td>4</td>
</tr>
<tr>
<td>Physical Education Activity</td>
<td>1</td>
</tr>
<tr>
<td>Electives</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>33-34</td>
</tr>
</tbody>
</table>

Total minimum credit hours required: 64

* MATH 2250 is offered fall semester only. MATH 2310 is offered spring semester only. Student must take one of these courses.

Mathematics

Knowledge of mathematics is essential for a successful career in nearly all fields of endeavor and for an appreciation of our surroundings. The mathematics courses offered meet the needs of students in every division of the college.

The major in mathematics is unique because a student can earn an Associate of Arts and/or an Associate of Science degree. Students who complete an Associate of Science or Associate of Arts degree in Mathematics will demonstrate knowledge and skills necessary for mathematics majors and will be prepared to transfer to four-year institutions.

Those students unprepared to begin the calculus sequence upon entry at LCCC should consult their advisors for an amended course of study.

**First Year**

**FALL SEMESTER**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 2200 – Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 1010 – English I: Composition</td>
<td>3</td>
</tr>
<tr>
<td>CO/M 1010 – Public Speaking -OR-</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1000 – American and Wyoming Government -OR-</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1200 – Economics, Law, and Government</td>
<td>3</td>
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</tbody>
</table>

**SPRING SEMESTER**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 2205 – Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 1020 – English II</td>
<td>3</td>
</tr>
<tr>
<td>Spanish, French -OR- other language</td>
<td>4</td>
</tr>
<tr>
<td>HIST 1211 – U.S. to 1865 -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1221 – U.S. from 1865 -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1251 – Wyoming History -OR-</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1200 – Economics, Law, and Government</td>
<td>3</td>
</tr>
</tbody>
</table>

**Second Year**

**FALL SEMESTER**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 2210 – Calculus III</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 1310 – College Physics</td>
<td>4</td>
</tr>
<tr>
<td>COSC 1010 – Introduction to Computer Science I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2250 – Elementary Linear Algebra*</td>
<td>3</td>
</tr>
</tbody>
</table>

**SPRING SEMESTER**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 2310 – Applied Differential Equations*</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1320 – College Physics II</td>
<td>4</td>
</tr>
<tr>
<td>Social Science Elective</td>
<td>3</td>
</tr>
<tr>
<td>Electives (STAT course recommended for A.S. degree -OR- Social Science course required for A.A. degree)</td>
<td>4</td>
</tr>
<tr>
<td>Arts and Humanities Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

Total credit hours required: 64

* MATH 2250 is offered fall semester only. MATH 2310 is offered spring semester only. Student must take one of these courses.
Medicine
For information about transfer programs in medical careers, please see the Biology program, the General Studies in Science/Health Science program, or the specific degree—dental hygiene, diagnostic medical sonography, emergency medical services—paramedics, medical laboratory technician, nursing, physical therapist assistant, radiography, or surgical technology.

Music
The major in music prepares students for careers in performance, school or studio teaching, music business, and music theory and composition. The courses offered lead to an Associate of Arts degree and may be applied toward various bachelor’s degree programs in music.

Many courses and ensembles are available to the non-music major. Students can study and experience music of virtually any style, from Western European art music to jazz or ethnic music.

Private music lessons (applied music) are required of all music majors. Registration for ensemble requirements should be in consultation with a music advisor.

**PROGRAM REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 1000</td>
<td>Introduction to Music</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 1030</td>
<td>Written Theory I</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 1035</td>
<td>Aural Theory I</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 1040</td>
<td>Written Theory II</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 1045</td>
<td>Aural Theory II</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 1051</td>
<td>Applied Music: Vocal and Instrumental</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 1052</td>
<td>Applied Music: Vocal and Instrumental</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 1290</td>
<td>Elementary Class Piano I</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 1295</td>
<td>Elementary Class Piano II</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 1400</td>
<td>Collegiate Chorale -OR-</td>
<td></td>
</tr>
<tr>
<td>MUSC 1410</td>
<td>Vocal Ensemble (Cantorei) -OR-</td>
<td></td>
</tr>
<tr>
<td>MUSC 1380</td>
<td>Wind Symphony -OR-</td>
<td></td>
</tr>
<tr>
<td>MUSC 1390</td>
<td>Jazz Ensemble</td>
<td>4</td>
</tr>
<tr>
<td>MUSC 2030</td>
<td>Written Theory III</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 2035</td>
<td>Aural Theory III</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2040</td>
<td>Written Theory IV</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 2045</td>
<td>Aural Theory IV</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2050</td>
<td>Historical Survey I (Offered fall)</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 2055</td>
<td>Historical Survey II (Offered spring)</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 2071</td>
<td>Applied Music: Vocal and Instrumental</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2072</td>
<td>Applied Music: Vocal and Instrumental</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2290</td>
<td>Elementary Class Piano III</td>
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</tr>
<tr>
<td>MUSC 2295</td>
<td>Elementary Class Piano IV</td>
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</table>

**COLLEGE REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO/M 1030</td>
<td>Interpersonal Communication -OR-</td>
<td></td>
</tr>
<tr>
<td>CO/M 1010</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1010</td>
<td>English I: Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1020</td>
<td>English II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1000</td>
<td>Problem Solving -OR-</td>
<td>3-4</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Pre-Calculus Algebra</td>
<td></td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American and Wyoming Government -OR-</td>
<td></td>
</tr>
<tr>
<td>HIST 1211</td>
<td>U.S. to 1865 -OR-</td>
<td></td>
</tr>
<tr>
<td>HIST 1221</td>
<td>U.S. from 1865 -OR-</td>
<td></td>
</tr>
<tr>
<td>HIST 1251</td>
<td>Wyoming History -OR-</td>
<td></td>
</tr>
<tr>
<td>ECON 1200</td>
<td>Economics, Law, and Government</td>
<td>3</td>
</tr>
<tr>
<td>Lab Science</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Physical Education Activity</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Social Science Electives</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Arts and Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Computer Literacy Elective</td>
<td>1</td>
</tr>
</tbody>
</table>

Total credit hours required........................................... 67-68
**Nursing**

This is a four-semester program that includes a balance of general education and nursing courses that assist students in acquiring the knowledge and skills to function as beginning practitioners of nursing. The program is approved by the Wyoming State Board of Nursing and accredited by the National League for Nursing Accrediting Commission.

Students receive classroom instruction and coordinated clinical experience in the nursing care of patients in health care settings under the supervision and guidance of the nursing faculty.

Upon completion of the program, the graduate earns an Associate of Applied Science degree and is eligible to write the qualifying examination for registered nurse licensure.

Applications to the program are available the semester prior to admission and are submitted according to the application, which may be obtained at the website www.lccc.wy.edu/nursing.

Prerequisites--All courses must be completed with a grade of C or better:
* TEAS Entrance Test with a minimum Adjusted Individual Total Score of 74.5% or Nurse Entrance Test (NET) (within last three years) Minimum percentile rank of 65
* Verification of Computer Literacy
* ZOO 2010–Anatomy and Physiology I (BIO 201 in Colorado)*
* MATH 1000–Problem Solving or higher (Statistics does not qualify) (MAT 120 or 121 in Colorado)
* Demonstrated competency to enter ENGL 1010
* Students may also complete the eight-credit sequence with ZOO 2015–Human Anatomy and ZOO 2025–Human Physiology to fulfill this requirement. Taking one course from each sequence will not fulfill the requirement.

All students admitted to the nursing program are expected to carry their own personal health insurance.

**DRUG SCREENING AND CRIMINAL BACKGROUND CHECKS**

Acceptance into the program is conditional based upon satisfactory completion of a criminal background check and drug screen. Instructions for completion will be provided once a student is accepted into the program.

Students will also be subject to random and for cause drug screening throughout the program. Testing positive on the drug screening or evidence of tampering with a specimen will disqualify a student from participation from clinical assignment.

Certain criminal activity, as evidenced by a criminal background check, may also disqualify a student from clinical participation. See division policy at www.lccc.wy.edu/academics/divisions/HSW.

Students are advised that the inability to gain clinical education experiences can result in the inability to meet program objectives and outcomes. These circumstances may prevent acceptance into and/or continuance in the program.

**FIRST SEMESTER**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRST 1610</td>
<td>Nursing I</td>
<td>6</td>
</tr>
<tr>
<td>NRST 1710</td>
<td>Clinical Experience I</td>
<td>3</td>
</tr>
<tr>
<td>ZOO 2020</td>
<td>Anatomy and Physiology II* (If you took ZOO 2015, then ZOO 2025 needs to be completed)</td>
<td>4</td>
</tr>
<tr>
<td>Social Science Elective* (Cultural Anthropology or General Psychology)</td>
<td>3-4</td>
<td></td>
</tr>
</tbody>
</table>

**SECOND SEMESTER**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRST 1620</td>
<td>Nursing II</td>
<td>6</td>
</tr>
<tr>
<td>NRST 1720</td>
<td>Clinical Experience II</td>
<td>5</td>
</tr>
<tr>
<td>HOEC 1140</td>
<td>Nutrition*</td>
<td>2</td>
</tr>
<tr>
<td>Physical Education Activity*</td>
<td>1</td>
<td></td>
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<tr>
<td>ENGL 1010</td>
<td>English I: Composition*</td>
<td>3</td>
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</table>

**THIRD SEMESTER**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRST 2630</td>
<td>Nursing III</td>
<td>6</td>
</tr>
<tr>
<td>NRST 2730</td>
<td>Clinical Experience III</td>
<td>5</td>
</tr>
<tr>
<td>MOLB 2220</td>
<td>Pathogenic Microbiology*</td>
<td>4</td>
</tr>
<tr>
<td>CO/M 1030</td>
<td>Interpersonal Communication* -OR-</td>
<td>3</td>
</tr>
<tr>
<td>CO/M 1010</td>
<td>Public Speaking*</td>
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**FOURTH SEMESTER**

<table>
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<th>Course Name</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>NRST 2640</td>
<td>Nursing IV</td>
<td>6</td>
</tr>
<tr>
<td>NRST 2740</td>
<td>Clinical Experience IV</td>
<td>5</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American and Wyoming Government* -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1211</td>
<td>U.S. to 1865* -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1221</td>
<td>U.S. from 1865* -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1251</td>
<td>Wyoming History* -OR-</td>
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<tr>
<td>ECON 1200</td>
<td>Economics, Law, and Government*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total credit hours required</td>
<td>72-73</td>
</tr>
</tbody>
</table>

* Indicates course may be taken before program admission. However, all courses must be completed before or during the semester progression as indicated.
Paralegal

Paralegals or legal assistants are persons who, although not members of the legal profession, are qualified through education, training, or work experience, who are employed or retained by a lawyer, law office, governmental agency, or other entity in a capacity or function which involves the performance, under the ultimate direction and supervision of an attorney, of specifically delegated substantive legal work, which work, for the most part, requires a sufficient knowledge of legal concepts that, absent that paralegal, the attorney would perform the task. (Definition provided by the American Bar Association.)

As such, paralegals are not allowed to practice law. In Wyoming it is illegal for anyone who is not a licensed attorney to practice law. The practice of law refers to the rendition of services for others that call for the professional judgment of a lawyer. Therefore, nonlawyers may not, at a minimum, represent others in court, draft legal documents for someone, or give someone legal advice.

A paralegal’s duties are many and varied depending on the individual’s capabilities and the needs of the employer. A person interested in a paralegal career must be a good communicator who is willing and able to accept significant responsibility while assisting an attorney in a modern law practice.

The primary goal of the paralegal program is to provide students with the technical skills and knowledge necessary for them to perform successfully and ethically as paralegals under the supervision of attorneys in a variety of legal settings. Upon completion of the program, graduates will be able to perform legal research in a variety of fields using both traditional and computer-assisted methods; to draft pleadings, discovery and other legal documents, legal correspondence, and legal memoranda; to demonstrate substantive knowledge of at least three areas of practice; to demonstrate an understanding of the ethical rules governing both attorneys and paralegals in the jurisdiction; and to demonstrate the analytical and judgmental abilities necessary for ethical decision-making in a legal environment.

Program objectives include providing students with appropriate general education to meet state statutory requirements and to develop the student’s communication, quantitative, analytical, and technological skills; preparing students to perform legal and factual research using traditional and computer-assisted methods; preparing students to draft a variety of legal documents and correspondence; preparing students to effectively interview clients and witnesses; providing students with an understanding of the evolving paralegal field and career opportunities within that field; providing students with the skills needed to assist an attorney with the investigation and litigation process; providing students with an understanding of the legal system and the modern practice of law; and providing students with an understanding of the ethical rules governing the practice of law and the behaviors and judgment necessary to perform paralegal duties in a manner ethically consistent with those rules.

The following program of study is designed to develop the specific skills and abilities required for success in the paralegal career field. Completion of this program leads to the Associate of Applied Science degree.

Paralegal Program also offers a certificate. The certificate program is reserved for individuals who have already earned a bachelor’s degree in another discipline and now desire to work as a paralegal.

The paralegal program is approved by the American Bar Association (ABA). Majors must be careful to check with the advisor before enrolling for general education courses since some additional course work may be required.

Associate of Applied Science Degree

REQUIREMENTS:
Eighteen credit hours from the following courses must be derived from a list of approved courses. This list may be obtained from the Paralegal Program advisor.

GENERAL EDUCATION COURSES (21-24 credit hours)

Communication and Information Literacy

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>English I: Composition</td>
<td>3</td>
</tr>
<tr>
<td>CO/M 1030</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>CO/M 1010</td>
<td>Public Speaking</td>
<td>3</td>
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</tbody>
</table>
| Mathematics and Quantitative Reasoning
| Mathematics (MATH 1000 or higher) | 3-4     |
| Cultural, Historical, Political, and Social Development
| POLS 1000              | American and Wyoming Government | 3       |
| HIST 1211              | U.S. to 1865                   | 3       |
| HIST 1221              | U.S. from 1865                 | 3       |
| HIST 1251              | Wyoming History                | 3       |
| ECON 1200              | Economics, Law, and Government | 3       |
| Social Sciences/Humanities/Fine Arts Elective | 3 |

Scientific and Technical Processes

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COSC 1200</td>
<td>Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>BADM 1020</td>
<td>Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>BADM 2010</td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>BADM 2020</td>
<td>Business Law II</td>
<td>3</td>
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</table>

Physical Wellness (Physical Education Activity) .................. 1

MAJOR CORE COURSES (30 credit hours minimum)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>LEGL 1500</td>
<td>Introduction to Paralegal Studies*</td>
<td>3</td>
</tr>
<tr>
<td>LEGL 1710</td>
<td>Legal Research and Writing I*</td>
<td>3</td>
</tr>
<tr>
<td>LEGL 1720</td>
<td>Legal Research and Writing II*</td>
<td>3</td>
</tr>
<tr>
<td>LEGL 2500</td>
<td>Civil Procedure and Litigation*</td>
<td>3</td>
</tr>
<tr>
<td>LEGL 2590</td>
<td>Evidence and Investigation*</td>
<td>3</td>
</tr>
<tr>
<td>BADM 2010</td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>BADM 2020</td>
<td>Business Law II</td>
<td>3</td>
</tr>
<tr>
<td>LEGL 2650</td>
<td>Criminal Law and Procedure</td>
<td>3</td>
</tr>
<tr>
<td>LEGL 2670</td>
<td>Constitutional Law</td>
<td>3</td>
</tr>
<tr>
<td>LEGL 2680</td>
<td>Administrative Law</td>
<td>3</td>
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<tr>
<td>LEGL 2830</td>
<td>Computer Applications in the Law</td>
<td>3</td>
</tr>
<tr>
<td>LEGL 2990</td>
<td>Paralegal Internship</td>
<td>3-5</td>
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</tbody>
</table>

* Mandatory Courses

OTHER COURSES (Restricted Electives, 15+ credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1050</td>
<td>Practical Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 1060</td>
<td>Practical Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>BADM 1020</td>
<td>Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>COSC 1200</td>
<td>Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 2221</td>
<td>Logic</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 2301</td>
<td>Ethics</td>
<td>3</td>
</tr>
<tr>
<td>CRMJ 2120</td>
<td>Introduction to Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRMJ 1310</td>
<td>Criminal Investigation I</td>
<td>3</td>
</tr>
<tr>
<td>POLS 2070</td>
<td>Politics of State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td>POLS 2410</td>
<td>Introduction to Public Administration</td>
<td>3</td>
</tr>
<tr>
<td>POLS 2470</td>
<td>Government Internship</td>
<td>1-4</td>
</tr>
</tbody>
</table>

A minimum of 64 credit hours is required for a degree.

Other electives may be applied upon receiving advisor approval.

Students are encouraged to choose electives from computer, business, political science, criminal justice, and language courses. Students seeking approval for an elective course not listed above should contact the program advisor prior to enrolling for the course.
It is the policy of the Paralegal Program at Laramie County Community College that students may transfer no more than six (6) semester hours of legal specialty courses from another institution’s program and that program must be approved by the American Bar Association. At this time, LCCC’s Paralegal Program does not award legal specialty credit by examination.

**Certificate**

**FALL SEMESTER**
- **LEGL 1500** – Introduction to Paralegal Studies .......... 3
- **LEGL 1710** – Legal Research and Writing I ............... 3
- **LEGL Elective** .......................................................... 3
- **BADM 2010** – Business Law I ................................ 3

**SPRING SEMESTER**
- **LEGL 1720** – Legal Research and Writing II .............. 3
- **LEGL 2550** – Evidence and Investigation .................. 3
- **LEGL Elective** .......................................................... 3
- **BADM 2020** – Business Law II -OR-
- **LEGL Elective** .......................................................... 3

**FALL SEMESTER**
- **LEGL 2500** – Civil Procedure and Litigation .............. 3
- **LEGL Elective** 3

**NOTE:** A LEGL elective could also be taken in the summer semester.

**Paramedics**
(See Emergency Medical Services—Paramedics)

**Philosophy**

Students interested in a concentration in philosophy should complete the degree in General Studies in Fine Arts and Humanities (see page 25). By completing this degree and by taking the courses listed below, students will be introduced to the systems of thought developed by the world’s great thinkers. Philosophy attempts to understand people and the world we inhabit by asking questions pertaining to every aspect of human life. Philosophy classes explore answers to such questions offered by influential thinkers. In addition, classes in philosophy encourage students to create and clearly support their own answers.

- **PHIL 1000** – Introduction to Philosophy ................. 3
- **PHIL 2221** – Logic ................................................. 3
- **PHIL 2301** – Ethics ................................................. 3
- **PHIL 2311** – Philosophy of Religion .................. 3
Physical Education

The Associate of Arts degree in physical education is designed to prepare students to meet those academic standards leading to a bachelor's degree at a four-year educational institution. Students are exposed to behavioral and humanistic studies to foster an understanding of the teaching profession as well as an understanding of the school as a social institution and students as unique individuals. Given the flexibility of the curriculum, one can pursue a teaching or nonteaching degree (Movement Science, Exercise Physiology, Fitness Leadership, Sports Management, etc.). The following two-year suggested program is for students seeking a physical education teaching degree from a four-year university. The same course of study offers a solid liberal arts education, thereby preparing students for academic advancement in program areas other than physical education. Students should consult with a faculty advisor in selecting those courses that are not specifically identified to ensure the courses are appropriate and transferable.

First Year

FALL SEMESTER
PSYC 1000 – General Psychology ........................................ 4
ENGL 1010 – English I: Composition ................................. 3
CO/M 1010 – Public Speaking -OR- CO/M 1030 – Interpersonal Communication ..................... 3
PEPR 1004 – Foundations of Physical and Health Education .......................................... 3
PEAC 2011 – Intermediate Swimming (M1) ....................... 1
PEAC 1030 – Dance Aerobics (M5) ..................................... 1
HLED 1221 – Standard First Aid and Safety ....................... 2
HOEC 1140 – Nutrition ........................................................ 2

SPRING SEMESTER
ENGL 1020 – English II ........................................................ 3
BIOL 1010 – General Biology ............................................. 4
Fine Arts/Humanities Elective (must take two courses from two different disciplines) ..................... 3
HLED 1006 – Personal Health ............................................. 3
PEAC 1260 – Beginning Volleyball (M2) ............................. 1
PEAC 1295 – Individualized Exercise Programs (M4)........ 1

Total credit hours required ...................................................70-72

M1 = movement core I
M2 = movement core II
M3 = movement core III
M4 = movement core IV
M5 = movement core V

All physical education majors must have 30 contact hours with youth (K-12) in a movement setting in each of the freshman and sophomore years (total of 60 hours). The experience must be with an organized program and must be documented. If students have questions, they should contact an instructor in the Physical Education Department.

Students must have a 2.5 G.P.A. and be interviewed for acceptance into the Physical Education Teacher Education professional program (junior- and senior-level classes). Application for admission to this program is made in the spring semester of the sophomore year.

Second Year

FALL SEMESTER
COSC 1200 – Computer Information Systems .................... 3
MATH 1400 – Pre-Calculus Algebra -OR- MATH 1405 – Pre-Calculus Trigonometry -OR
MATH 1450 – Pre-Calculus Algebra/Trigonometry ............. 3-5
ZOO 2015 – Human Anatomy ........................................... 4
Social Science Elective ..................................................... 3
PEPR 2050 – Care and Prevention of Athletic Injuries .......... 2
PEAC 1263 – Beginning Basketball (M3) ......................... 1
PEAC 1273 – Heavy Resistance Conditioning (M4) .......... 1

SPRING SEMESTER
PHYS 1050 – Concepts of Physics -OR- PHYS 1110 – General Physics I ..................... 4
ZOO 2025 – Human Physiology ........................................ 4
STAT 2070 – Introductory Statistics for the Social Sciences .............................................. 4
Fine Arts/Humanities Elective (must take two courses from two different disciplines) ..................... 3
PEAC 1295 – Individualized Exercise Programs (M4)........ 1

Total credit hours required ...................................................70-72

M1 = movement core I
M2 = movement core II
M3 = movement core III
M4 = movement core IV
M5 = movement core V

All physical education majors must have 30 contact hours with youth (K-12) in a movement setting in each of the freshman and sophomore years (total of 60 hours). The experience must be with an organized program and must be documented. If students have questions, they should contact an instructor in the Physical Education Department.

Students must have a 2.5 G.P.A. and be interviewed for acceptance into the Physical Education Teacher Education professional program (junior- and senior-level classes). Application for admission to this program is made in the spring semester of the sophomore year.
**Physical Therapist Assistant**

Physical Therapist Assistants (PTAs) work under the direction of physical therapists to help people of all ages who have health-related conditions that limit their ability to move and perform daily activities. Physical therapist assistants help patients reach their maximum performance and level of functioning while learning to live within the limits of their rehabilitation goals. Physical therapist assistants may assist in the development of treatment plans, treatment documentation, and modification of specific treatments that have been established by the physical therapist.

LCCC’s Physical Therapist Assistant program has been granted Candidate for Accreditation status by the Commission on Accreditation in Physical Therapy Education (CAPTE) of the American Physical Therapy Association. Candidacy is not an accreditation status, nor does it assure eventual accreditation. Candidate for Accreditation is a pre-accreditation status of affiliation with CAPTE that indicates the program is progressing toward accreditation.

The Associate of Applied Science degree in the Physical Therapist Assistant professional curriculum is a five-semester sequence, preceded by a set of prerequisites. Students must maintain a minimum grade of a “C” in each PTAT and ZOO course, in addition to college graduation requirements, to progress and graduate. Upon accreditation, graduates of the Physical Therapist Assistant program are eligible to apply for the national licensing exam, administered by the Federation of State Boards of Physical Therapy (FSBPT).

Employment opportunities are available in a variety of settings including outpatient physical therapy offices and clinics, hospitals, and skilled nursing facilities.

**HEALTH AND PHYSICAL REQUIREMENTS:**
In the professional courses that are required, as well as in the career field, students need the ability to:

- Lift and move patients, equipment, and accessories (up to 50 pounds).
- Manipulate treatment equipment and measuring instruments using fine motor skills.
- Hear audible cues and warnings from patients and equipment.
- Utilize sense of touch in order to provide patient care, palpate anatomical landmarks, position patients, and administer treatments.
- Utilize interpersonal skills to handle patients with physical or emotional trauma and to interact with other people in the classroom, lab, or clinical setting in a professional manner.
- Utilize interpersonal skills to handle patients with physical or emotional trauma and to interact with other people in the classroom, lab, or clinical setting in a professional manner.

All students admitted to the Physical Therapist Assistant program are expected to carry their own personal health insurance.

**ADMISSIONS PROCESS:**
Due to program accreditation requirements, the program is limited to 20 students a year. Students interested in applying for the program should contact the program director for specific procedures. Students completing program prerequisites may apply in the fall for the upcoming spring semester.

Selection is based on a student’s grade point average, prerequisites completed, the date the application was received, and other criteria as noted on program application materials. Final acceptance will be contingent upon successful completion of program prerequisites, a health physical, and background check.

**SPECIAL SCHEDULING:**
In addition to lecture and lab classes, students will complete approximately 585 hours of clinical in area health care facilities during the program. Students will be assigned to clinical sites based on need and availability. Students are expected to provide their own transportation to clinical sites, which may be based out of town.

**DRUG SCREENING AND CRIMINAL BACKGROUND CHECKS**
At their discretion, clinical sites may require a drug screening and/or a criminal background check prior to allowing students into the clinical setting. (If required, any associated fees will be the responsibility of the student.) Clinical sites may also require random drug testing and/or drug testing for reasonable cause. Testing positive on the drug screening or evidence of tampering with a specimen will disqualify a student from participation from clinical assignment.

In addition to drug screening, for the safety of patients and health care workers, child abuse clearance and criminal background checks are required by some agencies prior to a clinical assignment. Certain criminal activity, as evidenced by a criminal background check, may also disqualify a student from clinical participation.

Students are advised that the inability to gain clinical education experiences can result in the inability to meet program objectives and outcomes. These circumstances may prevent acceptance into and/or continuance in the program.

**PREREQUISITES:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>English I: Composition</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1000</td>
<td>Problem Solving</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American and Wyoming Government</td>
<td>3</td>
</tr>
<tr>
<td>ZOO 1010</td>
<td>Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>PTAT 2030</td>
<td>Functional Kinesiology</td>
<td>4</td>
</tr>
<tr>
<td>ZOO 2010</td>
<td>Anatomy and Physiology *</td>
<td>4</td>
</tr>
<tr>
<td>PTAT 1820</td>
<td>Orthopedics</td>
<td>3</td>
</tr>
<tr>
<td>ZOO 2020</td>
<td>Anatomy and Physiology II*</td>
<td>4</td>
</tr>
<tr>
<td>PTAT 1840</td>
<td>Specialty Rehabilitation</td>
<td>3</td>
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**CO/M 1010 – Public Speaking ............................................. 3**

**SPRING I**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PTAT 1650</td>
<td>Therapeutic Procedures I</td>
<td>4</td>
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<tr>
<td>PTAT 1660</td>
<td>Introduction to Physical Therapy</td>
<td>3</td>
</tr>
<tr>
<td>PTAT 1970</td>
<td>PTA Internship I</td>
<td>3</td>
</tr>
<tr>
<td>CMAP 1685</td>
<td>Using Computers in: Healthcare -OR- Computer Literacy Elective</td>
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</table>

**SUMMER I**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTAT 1660</td>
<td>Therapeutic Procedures II</td>
<td>4</td>
</tr>
<tr>
<td>HLTK 2510</td>
<td>Pathophysiology</td>
<td>2</td>
</tr>
<tr>
<td>PTAT 1970</td>
<td>PTA Internship I</td>
<td>3</td>
</tr>
<tr>
<td>CMAP 1685</td>
<td>Using Computers in: Healthcare -OR- Computer Literacy Elective</td>
<td>1</td>
</tr>
</tbody>
</table>

**FALL II**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PTAT 1720</td>
<td>Therapeutic Exercise</td>
<td>4</td>
</tr>
<tr>
<td>EDST 2450</td>
<td>Human Lifespan Development</td>
<td>3</td>
</tr>
<tr>
<td>PTAT 1740</td>
<td>Cardiac Rehabilitation</td>
<td>3</td>
</tr>
<tr>
<td>PTAT 2970</td>
<td>PTA Internship II</td>
<td>5</td>
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<tr>
<td>ECON 1200</td>
<td>Economics, Law, and Government</td>
<td>3</td>
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**SPRING II**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTAT 1800</td>
<td>Neurology</td>
<td>3</td>
</tr>
<tr>
<td>PTAT 1820</td>
<td>Orthopedics</td>
<td>4</td>
</tr>
<tr>
<td>PTAT 1840</td>
<td>Specialty Rehabilitation</td>
<td>1</td>
</tr>
<tr>
<td>PTAT 2971</td>
<td>PTA Internship III</td>
<td>5</td>
</tr>
<tr>
<td>Physical Education Activity ...</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
**Psychology**

A psychology major pursues the Associate of Arts degree. This major requires the completion of 15 credit hours in psychology in addition to meeting the general education requirements. The program listed below is designed to satisfy all requirements for an Associate of Arts degree at LCCC with a major in psychology. Completion of an Associate of Arts degree with a major in psychology can prepare students to transfer into the junior year of a baccalaureate degree program. Psychology majors are strongly encouraged to determine the degree requirements of the specific college to which they plan to transfer.

### GENERAL EDUCATION COURSES (30-36 credit hours)

- **POLS** 1000 – American and Wyoming Government -OR-
- **HIST** 1211 – U.S. to 1865 -OR-
- **HIST** 1221 – U.S. from 1865 -OR-
- **HIST** 1251 – Wyoming History -OR-
- **ECON** 1200 – Economics, Law, and Government .......... 3
- **ENGL** 1010 – English I: Composition ................................. 3
- **ENGL** 1020 – English II ........................................................ 3
- **CO/M** 1010 – Public Speaking -OR-
- **CO/M** 1030 – Interpersonal Communication ..................... 3

*Arts and Humanities (two courses from two different disciplines) ...................... 6

*PSYC* 1000 – General Psychology ....................................... 4

*Mathematics (MATH 1000 or higher) ...................................... 3-4

*Physical, Biological -OR- Earth Laboratory Science .............. 4

- **ANTH** 1100 – Introduction to Biological Anthropology -OR-
- **ANTH** 1200 – Introduction to Cultural Anthropology -OR-
- **ANTH** 2210 – North American Indians ................................ 3

*Physical Education Activity ..................................................... 1

*Computer Literacy Elective ..................................................... 1-3

34-37

### GENERAL COLLEGE ELECTIVES

(minimum of 19 credit hours required) ....................................................................... 19

### MAJOR CORE COURSES (minimum 15 credit hours)

- **CNSL** 2300 – Counseling Skills for Helping Professionals  3
- **PSYC** 1100 – Organizational Human Relations* ............... 3
- **PSYC** 2000 – Research: Psychological Methods (P)(R) ... 4
- **PSYC** 2050 – Introductory Counseling/Clinical Theories. .. 3
- **PSYC** 2080 – Psychobiology ................................................. 4
- **PSYC** 2090 – Psychology of Religion .................................... 3
- **PSYC** 2210 – Drugs and Behavior (P) ............................... 3
- **PSYC** 2300 – Child Psychology (P) ...................................... 3
- **PSYC** 2310 – Exceptional Children (P) ............................... 2
- **PSYC** 2330 – Psychology of Adjustment (P) ..................... 3
- **PSYC** 2340 – Abnormal Psychology (P) ............................ 3
- **PSYC** 2380 – Social Psychology (P) .................................... 3
- **PSYC** 2400 – Contemporary Social Issues ......................... 3
- **PSYC** 1980 – Cooperative Work Experience**
  (see your advisor) .................................................................. 1-3
- **PSYC** 2980 – Cooperative Work Experience**
  (see your advisor) .................................................................. 1-3
- **PSYC** 2395 – Sophomore Seminar (P)(R) ........................... 1

15+

Total credit hours required ......................................................................................... 67

University of Wyoming transfer students should see their LCCC advisor or the UW bulletin for information regarding these requirements.

* This course will transfer only as general elective hours at the University of Wyoming.
Public Administration
(See Government Studies)

Radiography (X-ray)
The radiography program offers the student the knowledge and skills for utilizing radiation in the diagnosis of disease under the direction of a physician. Most radiographers work in hospitals, medical clinics, and private medical offices, while some are employed in industrial, sales, governmental, and educational institutions.

The 24-month program combines academic study with supervised clinical experience. Graduates of the program will receive the Associate of Applied Science degree and be eligible to take the national certifying examination of the American Registry of Radiologic Technologists. Upon passing the examination, a student is certified as a registered radiologic technologist.

The Joint Review Committee on Education in Radiologic Technology, 20 North Wacker Drive, Suite 2850, Chicago, IL 60606-3182, through its approval of the program in radiography at LCCC, has established a maximum number of students selected each year for the program based on limited hospital facilities. Most students are employed immediately upon graduation from the program. Bachelor’s and master’s degrees are also available in the field. The program begins a new class each fall.

A student interested in applying for the radiography program may contact the Radiography Program Director, Clinical Coordinator, or the Admissions Office for specific procedures, including placement tests, which must be completed in the early spring for admission to the program in the fall semester. Selection of new students will be completed by early April and is based on a student’s grade point average, prerequisites completed, the date of receipt of application, and other criteria as noted on program application materials.

Laramie County Community College does not discriminate on the basis of race, color, national origin, sex, age, religion, political affiliation, or disability in admission or access to, or treatment or employment in, its educational programs or activities.

Courses marked with an asterisk (*) in the formal curriculum listed here may be taken prior to entering the program. Note that the semester hours are quite high for most educational institutions.

Students are advised that the inability to gain clinical education experiences can result in the inability to meet program objectives and outcomes. These circumstances may prevent acceptance into and/or continuance in the program.

PREREQUISITES
• Reading Level III
• GPA of 2.0 or higher

REQUIRED:
• GPA of 2.0 or higher

EITHER *
ZOO 1010 – Anatomy and Physiology I
ZOO 1020 – Anatomy and Physiology II
4
4
OR:
ZOO 1510 – Human Anatomy
ZOO 2015 – Human Physiology
4
4
MATH 1000 – Problem Solving
MATH 1400 – Pre-Calculus Algebra
3-4
3-4
PSYC 1000 – General Psychology
4

1 Science and math courses must be five years current.
Students must complete one 8-credit sequence. Taking one course from each sequence will NOT fulfill this requirement.

First Year
FALL SEMESTER
RDTK 1503 – Introduction to Radiography
4
RDTK 1520 – Radiographic Patient Skills
1
PHYS 1050 – Concepts of Physics* (with lab)
(must have been taken within the past five years)
4
CO/M 1030 – Interpersonal Communication*
3
ENGL 1010 – English I: Composition*
3
15

(Clinical: Last 8 weeks, 10 hours/week = 80 hours)

H�数学课程必须是五年内的。
学生必须完成一个8学分的序列。从每一个序列中选择一门课程将不会满足要求。

第一年
秋季学期
RDTK 1503 – Introduction to Radiography
4
RDTK 1520 – Radiographic Patient Skills
1
PHYS 1050 – Concepts of Physics* (with lab)
(must have been taken within the past five years)
4
CO/M 1030 – Interpersonal Communication*
3
ENGL 1010 – English I: Composition*
3
15

(临床：最后8周，每周10小时= 80小时)

HLTK 1200 – Medical Terminology also may be taken as a supplemental course but is not required.
**Sociology**

The Associate of Arts degree in sociology is designed primarily for the student who plans to transfer to a four-year institution and pursue a Bachelor of Arts degree in sociology. The program is designed around the requirements set by the University of Wyoming for a four-year degree. Also, the program can help prepare students in studies other than sociology including international studies, pre-law, administration of justice, library preprofessional, and aging and human development.

A minimum of 64 semester credit hours is required for a degree. Students should consult with an advisor in order to ensure that all courses selected are appropriate and transferable. All degree candidates must complete two semesters of a foreign language (8 semester hours).

### First Year

**FALL SEMESTER**

**ENGL 1010** – English I: Composition ........................................ 3
**Foreign Language** ............................................................. 4
**MATH 1000** – Problem Solving ........................................ 3-4
**MATH 1400** – Pre-Calculus Algebra ..................................... 3-4
**SOC 1000** – Sociological Principles .................................. 3
**Computer Literacy** ......................................................... 1
**Physical Education Activity** ............................................... 1

**SPRING SEMESTER**

**CO/M 1010** – Public Speaking ........................................... 3
**CO/M 1030** – Interpersonal Communication ........................ 3
**ANTH 1200** – Introduction to Cultural Anthropology ............ 3
**BIOL 1000** – Principles of Biology ..................................... 4
**ENGL 1020** – English II ...................................................... 3
**Foreign Language** ............................................................. 4

### Second Year

**FALL SEMESTER**

**STAT 2070** – Introductory Statistics for the Social Sciences ... 4
**POLS 1000** – American and Wyoming Government ............... 4
**HIST 1211** – U.S. to 1865 .................................................. 3
**HIST 1221** – U.S. from 1865 ............................................... 3
**SOC 2400** – Criminology .................................................. 4
**En/Arts/Humanities Elective** (other than a foreign language) ... 3
**Electives** ........................................................................ 6

**SPRING SEMESTER**

**PSYC 1000** – General Psychology ....................................... 4
**Social Sciences (Recommended: HIST 1211/1221)** .............. 4-6
**Fine Arts/Humanities Elective** (other than a foreign language) ... 3

Total minimum credit hours required .................................. 64

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2 Clinical hour totals shown are approximate and may vary slightly because of scheduled college holidays/planning days.
Spanish

Students interested in studying Spanish with the intent of earning an Associate of Arts degree or transferring to a four-year university for a Bachelor of Arts degree should major in Spanish. In addition, students majoring in business, criminal justice, education, social sciences, or health care professions may be interested in a double major in Spanish to increase their employability by becoming bilingual. If students previously have studied Spanish, they should consult the Advising Center or the Spanish instructor for appropriate placement.

**PROGRAM REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUMN 2395</td>
<td>Mexican Civilization (Offered fall, odd years)</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 1010</td>
<td>First-Year Spanish I</td>
<td>4</td>
</tr>
<tr>
<td>SPAN 1020</td>
<td>First-Year Spanish II</td>
<td>4</td>
</tr>
<tr>
<td>SPAN 2030</td>
<td>Second-Year Spanish I</td>
<td>4</td>
</tr>
<tr>
<td>SPAN 2041</td>
<td>Intermediate Spanish II</td>
<td>4</td>
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**COLLEGE REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art, Music, Theater Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENGL 1010</td>
<td>English I: Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1020</td>
<td>English II</td>
<td>3</td>
</tr>
<tr>
<td>EDFD 1010</td>
<td>Introduction to Teaching -OR- Elective</td>
<td>2-3</td>
</tr>
<tr>
<td>EDFD 2020</td>
<td>Foundations of Education -OR- Elective</td>
<td>3</td>
</tr>
<tr>
<td>EDFD 2100</td>
<td>Educational Psychology -OR- Elective</td>
<td>3</td>
</tr>
<tr>
<td>Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HUMN 2400</td>
<td>Study Tour: Mysteries of Mexico -OR-</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American and Wyoming Government -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1211</td>
<td>U.S. to 1865 -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1221</td>
<td>U.S. from 1865 -OR-</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1200</td>
<td>Economics, Law, and Government</td>
<td>3</td>
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<tr>
<td>Lab Science</td>
<td>4</td>
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<tr>
<td>MATH 1000</td>
<td>Problem Solving -OR-</td>
<td>3-4</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Pre-Calculus Algebra</td>
<td>3-4</td>
</tr>
<tr>
<td>Physical Education Activity</td>
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<tr>
<td>Social Science Elective</td>
<td>9-10</td>
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<tr>
<td>Computer Literacy Elective</td>
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</table>

Total credit hours required: 66-69

Speech

(See Communication)

Surgical Technology

Surgical technologists are allied health professionals who are an integral part of the surgical team. Their primary role is to work with surgeons, anesthesiologists, registered nurses, and other surgical technologists in delivering patient care and assuming appropriate responsibilities before, during, and after surgery. Specifically, surgical technologists apply and maintain the principles of sterile technique and safety in the operating room; prepare, handle, sterilize, and care for surgical instruments, supplies, equipment, and medications; set up instrumentation, equipment, and supplies for various surgical cases; apply critical thinking skills to anticipate procedural steps and corresponding instrumentation; and pass surgical instrumentation and supplies to the surgeon.

The goal of the Surgical Technology Associate of Applied Science degree program is to prepare competent, entry-level surgical technologists in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains. Graduates of the program will be able to apply fundamental theoretical knowledge in the practice of surgical technology; acquire and evaluate emerging surgical knowledge; effectively and safely manipulate surgical equipment, instruments, and supplies; consistently maintain sterile technique; demonstrate the ability to maintain a stable emotional state, even under stressful conditions, which enables the effective use of reason and good judgment in patient care situations; and demonstrate the formation of a strong sterile conscience.

The program has limited enrollment and admits one class each fall. The prerequisite courses listed below must be completed or in progress prior to application for program admission. Prospective students should contact the Surgical Technology Program Director for admission deadlines. Applicants must be in excellent physical health and be able to perform the rigorous physical tasks required of the profession. In addition, candidates must have a stable emotional temperament to be able to function safely and use good judgment under stressful conditions. Drug screening and criminal background checks may be required by clinical affiliates for those persons accepted into the program.

Once the student has been accepted, the intensive 11-month surgery core program combines classroom lectures and discussions, laboratory demonstrations with hands-on practice, and supervised clinical experiences in actual patient care settings to provide students with a variety of learning opportunities. Clinical rotations will include experiences outside of Laramie County, and students must be willing and able to travel to attend scheduled clinical assignments. Due to the distance, overnight stays may be necessary.

The surgical technology program offers two options for program completion. The traditional on-campus program is offered in Cheyenne, and an online program is offered for students throughout Wyoming. Once accepted into the program, surgery-specific on-campus courses require full-time enrollment and begin in August continuing through the following July. The online program consists of four main components:

- All prerequisite courses may be taken online through LCCC or at any Wyoming community college and transferred into the program.
- Surgical technology core lecture courses are delivered online. Examinations will require a local proctor.
- The lab skills courses (90 hours in the fall and 30 hours in the spring) will be scheduled most likely on weekends and will be held at a partnering hospital in Wyoming or on campus in Cheyenne. The location will be determined based on the locations of students in each cohort group.
- The clinical rotations will be scheduled at partnering hospitals throughout the state. Students will rotate through several hospitals nearest their home to obtain the required case experience. Travel to clinical sites is required, and overnight stays may be necessary.

This program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAAHEP),
1361 Park Street, Clearwater, FL 33756, which allows graduates to take the national certifying examination sponsored by the National Board for Surgical Technology and Surgical Assisting (NBSTSA).

**DRUG SCREENING AND CRIMINAL BACKGROUND CHECKS**

At their discretion, clinical sites may require a drug screening and/or a criminal background check prior to allowing students into the clinical setting. (If required, any associated fees will be the responsibility of the student.) Clinical sites may also require random drug testing and/or drug testing for reasonable cause. Testing positive on the drug screening or evidence of tampering with a specimen will disqualify a student from participation from clinical assignment.

In addition to drug screening, for the safety of patients and health care workers, child abuse clearance and criminal background checks are required by some agencies prior to a clinical assignment. Certain criminal activity, as evidenced by a criminal background check, may also disqualify a student from clinical participation.

Students are advised that the inability to gain clinical education experiences can result in the inability to meet program objectives and outcomes. These circumstances may prevent acceptance into and/or continuance in the program.

**PREREQUISITE COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HLTK 1200 – Medical Terminology</td>
<td>2</td>
</tr>
<tr>
<td>OR: ZOO 2010 – Anatomy and Physiology I (AND)</td>
<td>4</td>
</tr>
<tr>
<td>ZOO 2020 – Anatomy and Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1000 – Problem Solving</td>
<td>3</td>
</tr>
<tr>
<td>CO/M 1030 – Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>MOLB 2220 – Pathogenic Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>HLTK 2520 – Health Care Ethics</td>
<td>3</td>
</tr>
<tr>
<td>HLTK 2510 – Pathophysiology</td>
<td>2</td>
</tr>
<tr>
<td>Social Science/Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education Activity</td>
<td>1</td>
</tr>
<tr>
<td>CMAP 1685 – Using Computers in: Healthcare -OR- Computer Literacy Elective</td>
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</table>

* Students must complete one 8-credit sequence. Taking one course from each sequence will NOT fulfill this requirement.

**First Year**

**FALL SEMESTER**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURG 1600 – Introduction to Surgical Technology</td>
<td>3</td>
</tr>
<tr>
<td>SURG 1685 – Surgical Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>SURG 1610 – Surgical Technology Theory</td>
<td>4</td>
</tr>
<tr>
<td>SURG 1620 – Surgical Technology Skills Lab I</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPRING SEMESTER</td>
<td></td>
</tr>
<tr>
<td>SURG 1630 – Surgical Technology Skills Lab II</td>
<td>1</td>
</tr>
<tr>
<td>SURG 1750 – Surgical Procedures I (first 8 weeks)</td>
<td>4</td>
</tr>
<tr>
<td>SURG 2750 – Surgical Procedures II (second 8 weeks)</td>
<td>4</td>
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<tr>
<td>SURG 1850 – Surgical Technology Clinical I</td>
<td>5</td>
</tr>
<tr>
<td>SURG 2810 – Surgical Technology Clinical Synthesis I</td>
<td>1</td>
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</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>SUMMER SEMESTER</td>
<td></td>
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<tr>
<td>SURG 2895 – Surgical Technology Clinical Synthesis II</td>
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<tr>
<td>SURG 2850 – Surgical Technology Clinical II</td>
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</tbody>
</table>

Total minimum credit hours required 64

**Technical Studies**

The Associate of Applied Science degree in Technical Studies is intended for individuals who desire to build upon a Department of Labor (DOL) recognized apprenticeship training program, bringing demonstrated knowledge, skills and competencies in their field as the technical foundation of the degree. Students will complete course work in the general education core and a selection of management courses to complete the degree program. Students will be advised and their apprenticeship evaluated for awarding of credit on an individual basis.

**GENERAL EDUCATION CORE**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1010 – English I: Composition</td>
<td>3</td>
</tr>
<tr>
<td>CO/M 1010 – Public Speaking -OR-</td>
<td>3</td>
</tr>
<tr>
<td>CO/M 1030 – Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1000 – Problem Solving (or higher)</td>
<td>3</td>
</tr>
<tr>
<td>Social Science –OR- Arts and Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>Lab Science (physical, biological, or Earth lab science or technical)</td>
<td>3-4</td>
</tr>
<tr>
<td>Computer Literacy</td>
<td>1-3</td>
</tr>
<tr>
<td>Physical Education Activity</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECHNICAL CORE</td>
<td>15-42</td>
</tr>
<tr>
<td>MGT 1500 – Leadership Essentials</td>
<td>3</td>
</tr>
<tr>
<td>MGT 1501 – Practical Workplace Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 1502 – Career Assessment and Portfolio: Creating the Total Package</td>
<td>3</td>
</tr>
</tbody>
</table>

**Approved Electives**

Total minimum credit hours required 64
Theatre
The theatre curriculum is designed to expose students to various aspects of Theatre, including theatre history, dramatic literature and the crafts of acting, directing and design/technology. The program is designed for transfer to a four-year institution and/or acceptance into acting programs and institutions devoted to the advancement of specific theatre skills. Students interested in a concentration in theatre should complete the General Studies in Fine Arts and Humanities program of study (see page 25) and complete the courses listed below in consultation with an advisor.

THEA 1000 – Introduction to Theater .......................................... 3
THEA 1100 – Beginning Acting .................................................. 3
THEA 2000 – Theatre Production ............................................... 3
THEA 2100 – Acting II ................................................................ 3
THEA 2220 – Stagecraft ............................................................. 3
THEA 2160 – Introduction to Stage Make-Up ............................ 3
CO/M 1010 – Public Speaking .................................................... 3
CO/M 1030 – Interpersonal Communication.............................. 3
English Literature Elective
(World Drama or Contemporary Elective) .............................. 3
MUSC 1000 – Introduction to Music ........................................ 3
MUSC 2350 – Studies in Musical Theatre I .............................. 3

Wildlife Conservation and Management
This major leads to the Associate of Science degree and will transfer to most four-year college programs in wildlife conservation and management. Students are urged in planning a course of study to check with any prospective four-year school for additional requirements and to work closely with an academic advisor.

GENERAL EDUCATION CORE
Communication and Information Literacy
ENGL 1010 – English I: Composition ........................................... 3
ENGL 1020 – English II ............................................................ 3
CO/M 1010 – Public Speaking -OR-
CO/M 1030 – Interpersonal Communication ............................ 3

Mathematics and Quantitative Reasoning
Two math courses MATH 1400 or higher
(excluding MATH 1510) -OR-
MATH 1400 or higher (excluding MATH 1510) -AND-
Statistics ............................................................................. 8

Cultural, Historical, Political, and Social Development
POLS 1000 – American and Wyoming Government -OR-
HIST 1211 – U.S. to 1865 -OR-
HIST 1221 – U.S. from 1865 -OR-
HIST 1251 – Wyoming History -OR-
ECON 1200 – Economics, Law, and Government ...................... 3
Social Science Elective ............................................................. 3
Arts and Humanities Elective .................................................... 3

Computer Literacy Elective
COSC 1010 – Introduction to Computer Science I
is recommended ..................................................................... 1-3

Scientific and Technical Processes
Lab science (physical, biological, or earth lab science;
BIOL 1010 is recommended) .................................................... 4

Physical Wellness ..................................................................... 1

General Education Core Curriculum Total .............................. 32-34

PROGRAM REQUIREMENTS
BIOL 2022 – Animal Biology ..................................................... 4
BIOL 2400 – General Ecology ................................................... 3
BIOL 2410 – Introduction to Field Ecology ............................... 2
CHEM 1020 – General Chemistry I ........................................... 5
CHEM 1030 – General Chemistry II ........................................... 4
PHYS 1110 – General Physics I -OR-
GEOL 1100 – Physical Geology ................................................. 4
ZOO 2450 – Wildlife Management ........................................... 3

Program Requirements Total .................................................... 25

Electives (MATH 2200 is recommended as it
is needed for some bachelor-level programs.
Please work with your advisor.) ............................................. 7-12

Total minimum credit hours required ..................................... 64
Course Descriptions

The course descriptions in this catalog are general descriptions only. Course content may vary with the instructor.

A prerequisite is designed to help students be successful. Prerequisites also inform prospective students what body of knowledge is necessary to be successful in a particular course.

If a prerequisite course is listed for a subsequent course, the student must have completed satisfactorily (grade of C or better) the prerequisite course, scored at an equivalent level on the college placement test, or completed an equivalent course at a college/university with regional accreditation. Equivalent courses must be demonstrated by submitting an official transcript, and final determination will be made by the Student Records Office/Registrar. For additional information, please refer to the “Academic Skills Assessment and Placement Policy” on Page **.

The college has designated reading, writing, and math prerequisite skill levels for many of the courses in the curriculum. The table below equates placement test levels with a specific developmental course.

This sample course description identifies how to determine the prerequisites for a given course.

**PHYS 1050 (4 CR.) CONCEPTS OF PHYSICS**

This course is designed to introduce the student to the science of matter interacting with energy in a variety of fields. Students demonstrate their competencies in the scientific method, properties of matter, mechanics, heat, sound, light, electricity and magnetism, radiation, and atomic and nuclear interactions. This course is recommended for students in the paramedical sciences—pharmacy, medical technology, radiographic technology, and dental hygiene—and other nonscience majors requiring a lab physics course. Three hours lecture, two hours lab per week.

Prerequisites: Completion of DVST 0520 or ENGL 0520, DVST 0630 or ENGL 0630, and MATH 0930 (or equivalent placement test scores).

Students registering for PHYS 1050 must have completed successfully:

- DVST 0520 or ENGL 0520—Reading Improvement II or scored on the placement test at a READING LEVEL III (or higher);
- DVST 0630 or ENGL 0630—Grammar and Writing Improvement (or higher-level writing course) or scored on the placement test at a WRITING LEVEL II (or higher);
- MATH 0930—Intermediate Algebra (or higher-level math course) or scored on the placement test at a MATH LEVEL II (or higher).

<table>
<thead>
<tr>
<th>Prerequisite Course Level</th>
<th>Equivalent Placement Test Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 0630—Grammar and Writing Improvement (formerly DVST 0630)</td>
<td>Writing Level II is the same as having completed DVST 0630 or ENGL 0630</td>
</tr>
<tr>
<td>ENGL 0700—Fundamentals of English (formerly ENGL 1001)</td>
<td>Writing Level III is the same as having completed ENGL 0700</td>
</tr>
<tr>
<td>ENGL 0510—Reading Improvement I (formerly DVST 0510)</td>
<td>Reading II is the same as having completed DVST 0510 or ENGL 0510</td>
</tr>
<tr>
<td>ENGL 0520—Reading Improvement II (formerly DVST 0520)</td>
<td>Reading Level III is the same as having completed DVST 0520 or ENGL 0520</td>
</tr>
<tr>
<td>MATH 0900—Pre-Algebra Arithmetic (formerly DVST 0900)</td>
<td>Math Level I is the same as having completed DVST 0900 or MATH 0900</td>
</tr>
<tr>
<td>MATH 0920—Elementary Algebra</td>
<td>Math Level II is the same as having completed MATH 0920</td>
</tr>
<tr>
<td>MATH 0930—Intermediate Algebra</td>
<td>Math Level III is the same as having completed MATH 0930</td>
</tr>
</tbody>
</table>
Accounting

ACCT 1050 (3 cr.) Practical Accounting I
A course where students acquire an overview of maintaining a set of accounting records and preparing financial statements for a sole proprietorship. There will be heavy concentration on recording general ledger entries. Topics include bank reconciliations, cash funds, payroll and special journals. Prerequisites: Completion of DVST 0510 or ENGL 0510 and MATH 0920 (or equivalent placement test scores) or concurrent enrollment.

ACCT 1060 (3 cr.) Practical Accounting II
A continuation of ACCT 1050. A course where students acquire knowledge to complete worksheets, financial statements, and closing entries for a merchandising enterprise. Topics include notes receivable, notes payable, bad debts, inventory, plant assets, and the voucher system as well as introductory information on corporations, partnerships, and departmental accounting. Prerequisite: Completion of ACCT 1050.

ACCT 2010 (3 cr.) Principles of Accounting I
An examination of the fundamental concepts and procedures employed by reporting entities in the communication of financial information in accordance with generally accepted accounting principles to outside interested parties. Prerequisites: Completion of DVST 0510 or ENGL 0510 and MATH 0920 (or equivalent placement test scores) or concurrent enrollment.

ACCT 2020 (3 cr.) Principles of Accounting II
A continuation of ACCT 2010 involving financial statement preparation and analysis, corporations, partnerships, international accounting, cost accounting, and budgeting. Prerequisites: Completion of ACCT 2010 or both ACCT 1050 and ACCT 1060.

ACCT 2450 (3 cr.) Cost Accounting
Students acquire knowledge in the fundamental principles of managerial cost accounting including the accumulation and reporting of accounting information needed for product and standard costing as well as information for planning, decision-making, and control activities. Prerequisite: Completion of ACCT 2020.

ACCT 2020 (3 cr.) Microcomputer Accounting I
Students demonstrate the practical application of accounting utilizing current software. Students create accounting records for businesses and utilize fundamental accounting concepts within the computerized system to address problem-solving situations. Topics covered include the general ledger, accounts receivable, accounts payable, job costing, and payroll. Prerequisite: Completion of ACCT 2010 or equivalent preparation.

ACCT 2120 (2 cr.) Microcomputer Accounting II
Students learn the practical application of accounting utilizing an additional software program. Students create accounting records for businesses and utilize fundamental accounting concepts within the computerized system to address problem-solving situations. Topics covered include the general ledger, accounts receivable, accounts payable, inventory control, job costing, payroll and billing features of software. Prerequisite: Completion of ACCT 2010 or equivalent preparation.

ACCT 2230 (3 cr.) Intermediate Accounting I
Students acquire knowledge of the principles and theory of accounting relating to financial statements, accounting information systems, the Income Statement and related information, Statement of Cash Flows, cash, receivables, and valuation of inventories. Prerequisite: Completion of ACCT 2020.

ACCT 2430 (3 cr.) Income Tax
A study of the fundamentals of individual federal income taxation designed to help students acquire an understanding of federal income tax determination, personal and dependency exemptions, gross income concepts, exclusions and exclusions, and general deductions and losses. Emphasis is placed on forms completion. Prerequisites: Completion of DVST 0510 or ENGL 0510 and MATH 0920 (or equivalent placement test scores) or permission of instructor.

ACCT 2450 (3 cr.) Payroll Accounting
Students examine federal and state employment laws and their effects on personnel and payroll records. Students acquire a practical working knowledge of current payroll laws, gain actual experience in applying regulations, and then apply this knowledge utilizing a computerized payroll system. Prerequisites: Completion of ENGL 0510 and MATH 0920 (or equivalent placement test scores).

Accounting Applications

ACCTA 2500 (3 cr.) Nonprofit/Governmental Accounting
A course where students acquire knowledge to maintain accounting records for governmental agencies and other nonprofit entities such as hospitals, colleges and universities, churches, and health and welfare agencies. Prerequisite: Completion of ACCT 2020.

Addictionology

ADDN 1010 (3 cr.) Addictions Prevention
Students develop skills in applying major theories, models, activities, and resources that an individual, family member, school or community can use to educate others, raise awareness, and prevent and intervene with addictive behaviors. Prerequisite: Completion of PSYC 2210.

ADDN 2970 (4 cr.) Addictionology Internship
Students gain work experience in the field and apply knowledge acquired in previous course work through assignment to a cooperating treatment agency/facility in the field. This 90-hour field experience will be scheduled, structured, and supervised by a certified or licensed professional. In addition to the field experience, students will meet in a weekly seminar. Students will be accepted in ADDN 2970 with documentation of not abusing alcohol or drugs for 18 months prior to enrollment. Prerequisite: Completion of ADDN 1010.
**Agriculture**

**AGRI 1010 (3 cr.)**

**Computers: Agriculture**
A course designed to acquaint students with the use of computers in agriculture and agribusiness. Literacy, practical application and evaluation of hardware and software will be employed using primarily mainframe and microcomputers. Prerequisites: Completion of DVST 0510 or ENGL 0510 and DVST 0630 or ENGL 0630 (or equivalent placement test scores).

**AGRI 1030 (3 cr.)**

**Industries in Agriculture**
Students examine multiple aspects of the agriculture industry as well as the purpose and philosophy of higher education as it relates to the different sectors of the agriculture industry.

**AGRI 1500 (2 cr.)**

**Introduction to Rodeo**
This course introduces the student to the history, culture, and business of rodeo. Students acquire knowledge about rodeo organizations, rough stock and time events, and professional rules and policies. They also gain an introductory understanding of rodeo production.

**AGRI 2500 (2 cr.)**

**Rodeo Production I**
A course that introduces the student to the business of rodeo livestock. Students acquire practical, hands-on experience with livestock leasing, purchasing, sorting, training, and management. Students also gain rodeo production experience from the stock contractor’s point of view and in accordance with NIRA rules regarding rodeo livestock.

**AGRI 2510 (2 cr.)**

**Rodeo Production II**
This course is the second in the series of rodeo production classes. Students acquire knowledge about advanced rodeo production methods including computerized rodeo entry systems, multimedia advertising, and computer-assisted rodeo secretarial methods. Prerequisites: Completion of AGRI 2500 and AGEC 2020.

**AGRI 2970 (3-9 cr.)**

**Management Internship**
The internship is designed to give the student real-world exposure to the business of rodeo from a rodeo producer’s or stock contractor’s perspective. Students acquire the essential skills for livestock management, transportation, purchasing, marketing, and producing a variety of rodeo events. The internship experience solidifies what the student has learned in the classroom and gives the student another perspective about the business of rodeo. Prerequisites: Completion of AGRI 1500 and AGRI 1510.

**Agriculture – Agricultural Economics**

**AGEC 1010 (3 cr.)**

**Agriculture Economics I**
A study of the basic economic principles of a free enterprise society with emphasis on the place of agriculture in society. Prerequisites: Completion of DVST 0510 or ENGL 0510 and DVST 0630 or ENGL 0630 (or equivalent placement test scores). (Cross-listed as ECON 1010.)

**AGEC 1020 (3 cr.)**

**Agriculture Economics II**
A study of agriculture as a business and its place in the general economy including farm production functions, marketing, costs, agricultural policy, and consumption. Prerequisite: Completion of AGEC 1010. (Cross-listed as ECON 1020)

**AGEC 2010 (3 cr.)**

**Farm-Ranch Business Records**
A course in economic principles, business methods and science as applied to organization and operations. Farm budgets, cost accounting, and record analysis are included as are measurements of size of business and rate and efficiency of operation. Prerequisite: Completion of DVST 0900 or MATH 0900 (or equivalent placement test score).

**AGEC 2020 (4 cr.)**

**Farm-Ranch Business Management**
A course describing the tools of management decision-making as applied to the problems of farm and ranch management and resource acquisition and use. Land use planning and income tax returns are covered. Prerequisites: Completion of AGEC 2010 and AGRI 1010.

**AGEC 2395 (3 cr.)**

**Capstone Course for Agriculture Majors**
Students consolidate the entire spectrum of their educational experience into the development of a management information system for an existing farm or ranch operation. The students select a farm/ranch property, secure public information, then develop the business plan for a complete year’s operation. The students present their project to the landowner for their review upon completion of the capstone project. Prerequisites: Students graduating from the agriculture program and approval of their advisor.

**AGEC 2400 (3 cr.)**

**Farm Credit and Finance**
A practical introduction to agriculture and personal finance. The analysis of financial conditions, control of costs, and the computation of interest. Includes a study of the sources of credit available for agriculture. Prerequisites: Completion of DVST 0510 or ENGL 0510 and DVST 0900 or MATH 0900 (or equivalent placement test scores).

**AGEC 2500 (3 cr.)**

**Agricultural Trade Policy**
This course introduces students to the basic trends in agriculture and its related trade policies beginning with a review of early U.S. agricultural legislation. Students become knowledgeable about domestic and foreign policy as they relate to global agricultural and agribusiness issues. Multicultural differences and their effect on agricultural trade and policy are considered along with alternative public policy options. Prerequisite: Completion of POLS 1000 or AGEC 1020.

**Agriculture – Agriculture Technology**

**AGTK 1650 (3 cr.)**

**Farm Power Machines**
An examination of various farm implements and equipment and the principles of their operation. The study of the economics of machinery usage and selection including cost analysis of leasing versus buying farm machinery.

**AGTK 1660 (5 cr.)**

**Tractor Engine Maintenance and Repair**
A study of the principles of the operation, maintenance, tune-up, and nomenclature of gasoline engines and other items applicable to farm tractors. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).
AGTK 1670  (5 cr.)  
Farm Tractor Overhaul  
A class in overhauling farm tractors. Students write a technical report on overhauling procedures. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

AGTK 1700  (4 cr.)  
Farm Structures  
A study of the types, costs, and uses of farm and ranch buildings. Some sample units will be erected. Prerequisite: Completion of DVST 0900 or MATH 0900 (or equivalent placement test score).

AGTK 1910  (3 cr.)  
Equipment Maintenance and Repair  
A thorough study of drive transmissions, hydraulics, and electrical systems along with the internal combustion engine. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

AGTK 2980  (5-15 cr.)  
On-the-Job Training  
Six hundred hours of supervised work experience in the student's chosen field. The student is paid the going wage for that type of work. The student receives practical experience doing assigned duties, operating various machines, and performing other functions necessary to the job. Students learn how to apply much of the technology learned at the college. The work-experience program is an integral part of the technology education program, so this should not be taken as a source of income but rather as a learning experience. The program is jointly covered by the college, the advisor, the employer, and the student. The training period takes place between the student's first and second years or at another time as worked out by the student and instructor. Hours of credit are arranged jointly by the employer, student, and instructor.

Agriculture – Animal Science

ANSC 1010  (4 cr.)  
Livestock Production  
A course introducing students to the scope of the livestock industry, and management of beef cattle, sheep, dairy cattle, horses, swine, and poultry. Students acquire introductory knowledge of breeding, genetics, reproduction, and nutrition of domestic animals in addition to wool, meat, dairy, and poultry products.

ANSC 1100  (2 cr.)  
Artificial Insemination  
A study of breeding principles and their value to the livestock producer. Each student in this course will be given instruction in A.I. technology including heat detection and disease control. Additional Fee.

ANSC 1200  (2 cr.)  
Livestock Fitting and Showing  
A course defining scope of livestock fitting and showing. It is designed to give the student the ability to fit and show cattle and sheep. Students are involved with the actual fitting practices and entries for show as well as the show ring, and they participate in breaking and training of livestock for show. This course is primarily a laboratory experience. Additional Fee.

ANSC 1210  (2 cr.)  
Livestock Judging I  
A study of the selection of domestic livestock based on type, conformation, breeding performance, and production records. Development of and emphasis on oral communication skills will be stressed. Additional Fee.

ANSC 1220  (2 cr.)  
Livestock Judging II  
Continuation of ANSC 1210. Prerequisite: Completion of ANSC 1210. Additional Fee.

ANSC 2020  (4 cr.)  
Feeds and Feeding  
A study of nutrition fundamentals and proper livestock management, including balancing rations and field maps to provide information and techniques of formulating feeds advised for production needs of the community. Prerequisites: Completion of DVST 0520 or ENGL 0520, DVST 0630 or ENGL 0630, and DVST 0900 or MATH 0900 (or equivalent placement test scores).

ANSC 2230  (2 cr.)  
Livestock Judging III  
A continuation of ANSC 1220. Prerequisite: Completion of ANSC 1220. Additional Fee.

ANSC 2300  (3 cr.)  
Plant and Animal Genetics  
A study of the principles of genetics and their application to livestock and crop production. Applications of reproduction, selection, inbreeding, and crossbreeding in livestock production are studied. Students plan and evaluate an improvement program designed to direct genetic changes in livestock. The course introduces students to methods of manipulating reproduction within livestock management systems. Prerequisites: Completion of DVST 0510 or ENGL 0510 and DVST 0900 or MATH 0900 (or equivalent placement test scores).

ANSC 2320  (3 cr.)  
Livestock Health and Management  
A lecture/laboratory course that introduces students to basic veterinary principles, including sanitation, disease prevention, animal restraint, vaccination procedures, preconditioning of livestock, and other health practices essential to the proper management of livestock. Course content covers individual bacteria and viruses, herd animal health and anatomy of cardiovascular, respiratory, hemolympathic, digestive, reproductive, and urinary systems. Prerequisites: Completion of DVST 0520 or ENGL 0520 and DVST 0630 or ENGL 0630 (or equivalent placement test scores).

Agriculture – Agroecology

AECL 1000  (4 cr.)  
Agroecology  
Students examine ecological interactions that affect food-producing (agricultural) systems. Through lectures and laboratory exercises, they gain knowledge of the various biological components and the science of sustainable agricultural production. In particular, students examine differences between developed and developing countries and explore crises and challenges facing agriculture and global society. Additional Fee.

AECL 2010  (4 cr.)  
The Ecological Web: Soils  
An introduction to soil science including soil ecology, the formation of soils, the biological properties of the soil affecting plant growth, and the different compositions of fertilizers and their interactions with soils and plants. This course typically consists of three hours of lecture and two hours of laboratory weekly. Prerequisites: Completion of DVST 0510 or ENGL 0510 and DVST 0900 or MATH 0900 (or equivalent placement test scores). Additional Fee.

AECL 2025  (4 cr.)  
Ecological Web: Horticultural Science  
A course examining the propagation, growth, development, and utilization of horticultural plants. Students gain an understanding of plant classification, anatomy, interactions with the environment, and genetic improvement through lecture presentations and laboratory experiences. This course fulfills requirements for a science laboratory course. Prerequisite: Completion of BIOL 1000 or BIOL 1010. Additional Fee.

AECL 2030  (3 cr.)  
Ecological Web: Turf Science  
A lecture/laboratory course that provides an introduction to turfgrass science and management. Students learn about turfgrass identification, growth and development, and the cultural practices necessary to maintain a healthy lawn. Additional Fee.

AECL 2040  (3 cr.)  
Ecological Web: Aquaculture  
A course examining the propagation, growth, development, and utilization of aquatic plants and animals. Students gain an understanding of aquatic plant classification, anatomy, and interactions with the environment, and genetic improvement through lecture presentations and laboratory experiences. This course fulfills requirements for a science laboratory course. Prerequisite: Completion of BIOL 1000 or BIOL 1010. Additional Fee.

AECL 2050  (3 cr.)  
Ecological Web: Wildlife Science  
A course examining the propagation, growth, development, and utilization of wildlife species. Students gain an understanding of wildlife classification, anatomy, interactions with the environment, and genetic improvement through lecture presentations and laboratory experiences. This course fulfills requirements for a science laboratory course. Prerequisite: Completion of BIOL 1000 or BIOL 1010. Additional Fee.
Agriculture – Crop Science

CROP 1151 (3 cr.)
Pests and Pesticides
A course in the management and physiological principles involved in the control of economically important farm, ranch, and range weeds and pests. Structure, activity, and behavior of pesticides and growth regulations are included. Prerequisites: Completion of DVST 0520 or ENGL 0520 and DVST 0900 or MATH 0900 (or equivalent placement test scores).

CROP 2000 (4 cr.)
Plants, Agriculture, and Civilization
A course in plant identification, the control of common weeds, plants, and other undesirable species, and a thorough study of agriculture chemicals and their proper uses. The distribution, botany, and culture of legumes and cereals are included. Prerequisites: Completion of DVST 0510 or ENGL 0510 and DVST 0630 or ENGL 0630 (or equivalent placement test scores). Additional Fee.

CROP 2200 (3 cr.)
Forage Crop Science
Production, presentation, and quality of principal hay, silage, and pasture crops are studied as well as effects of environmental factors such as physiology, development, and yield of important forage crops. The importance of forage as supplements to livestock enterprises, as soil-improving crops, irrigated and dry land forages, and production with emphasis on characteristics of important grasses and legumes are included. Prerequisites: Completion of DVST 0510 or ENGL 0510 and DVST 0900 or MATH 0900 (or equivalent placement test scores).

Agriculture – Range Management

RGMG 2000 (3 cr.)
Principles of Range Management
A study of the basic principles and practices of range management as they apply to the western and northwestern regions. The relationship of range management to livestock production, wildlife management, and forage production and their impact as inherent land use are covered. Management principles for private and public rangelands are important to plants and rangeland communities. Prerequisites: Completion of DVST 0510 or ENGL 0510, DVST 0630 or ENGL 0630, and DVST 0900 or MATH 0900 (or equivalent placement test scores).

American Studies

AMST 2010 (3 cr.)
Introduction to American Studies
This course introduces students to the interdisciplinary study of American culture. Students explore themes, values, and ideas that continue to resound throughout our cultural experience, focusing on individuals, ideas, and events that have defined what it means to be an American in context of past and current historical events. In the field of American studies, students develop understanding of American cultures, identities, artifacts, landscapes, and institutions from a variety of viewpoints, building layers of meaning and interpretation for the objects studied. Prerequisite: Completion of DVST 0510 or ENGL 0510 and DVST 0630 or ENGL 0630 (or equivalent placement test scores). Completion of ENGL 1010 is recommended.

AMST 2110 (3 cr.)
Cultural Diversity in America
A course designed to examine multicultural relations in the United States by exploring how common elements of humanity bind together individuals and groups of people. Students gain an understanding of issues related to social interaction, the concept of race, social class, age, gender, sexual orientation, and the sociology of minorities. Students also acquire an awareness of the constraints and motivations of many diverse populations including Native Americans, Hispanic-Americans, African-Americans, and Asian-Americans. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

Anthropology

ANTH 1100 (3 cr.)
Introduction to Biological Anthropology
An introductory course in physical/biological anthropology in which students are expected to become knowledgeable about and gain an understanding of mankind’s primate background, human osteology, human genetics and variation, fossil primates, and fossil man. An archaeological overview of cultural evolution in the Old World from fossil man to the peopling of the New World are presented. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

ANTH 1200 (3 cr.)
Introduction to Cultural Anthropology
An introductory course in cultural anthropology in which students acquire and demonstrate knowledge of the basic concepts of social and cultural anthropology including ecological-economic systems, social and political organization, language, magico-religious beliefs, and culture change. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

ANTH 1300 (3 cr.)
Introduction to Archaeology
Students are expected to become knowledgeable about the ways in which prehistoric cultural remains provide an understanding of the shared cultural life ways of humankind. In addition to surveying basic archaeological theory, field methods, and the laboratory analysis of field data, students learn about the evolution of culture, the growth and development of early Old World and New World civilizations, how cultures function, why they change, what similarities are shared broadly among cultures, and why cultures differ from one another. Prerequisites: Completion of DVST 0510 or ENGL 0510 and ENGL 0700 or ENGL 1001 (or equivalent placement test scores).

ANTH 2210 (3 cr.)
North American Indians
Students survey American Indian cultures north of Mexico at the time of the first contact with Europeans. Students acquire and demonstrate knowledge of detailed ethnographic and ethnohistorical comparisons of selected North American Indian cultural areas. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).
ANTH 2395  (1 cr.)
**Capstone Course for Anthropology Majors**
A course for anthropology majors who are in or near their final semester and have taken all required anthropology courses. Students reflect on the anthropological courses they have taken and summarize their learning experiences. In addition, students prepare a PowerPoint presentation documenting major themes of anthropology, including the main topics covered within ethnology, archaeology, physical anthropology, and North American Indian cultures; they present their work to an audience of their peers and instructors. Finally, students prepare for and complete a final anthropology exit exam given to all graduating anthropology majors at LCCC. Instructor approval required.

Art

**ART 1000  (3 cr.)**
**General Art**
A basic introduction to art through various art media. Students explore and experiment with different art materials and techniques by creating and developing a number of basic projects. For non-art majors and pre-school and elementary education majors. Prerequisites: Completion of DVST 0510 or ENGL 0510 and DVST 0630 or ENGL 1001 (or equivalent placement scores).

**ART 1010  (3 cr.)**
**General Art: History**
This course is not equal to or a replacement for the required art history courses for art majors. This is a one-semester, lecture-based introduction to the theories, techniques, concepts, and materials of art. Students define and describe the constructs underlying fine art such as visual literacy, themes of art, use of light and color, principles of design, and describe how these constructs are manifested in such art forms as sculpture, painting, drawing, ceramics, video, photography, architecture, etc. Students describe ways in which works of art exemplify principles and techniques of various media. Students also explore relationships between these concepts and sequential art history spanning ancient to contemporary movements. Prerequisites: Completion of DVST 0510 or ENGL 0510 and ENGL 0700 or ENGL 1001 (or equivalent placement test scores).

**ART 1050  (3 cr.)**
**Beginning Drawing**
Students investigate the visual vocabulary required in drawing and gain an understanding of the basic form and techniques used to render realistic as well as expressive drawings. Students use a variety of media, such as pencil, conte, charcoal, ink, pastels, oil sticks, and linoleum cuts.

**ART 1060  (3 cr.)**
**Drawing II**
In this continuation of ART 1050, students practice designing more sophisticated solutions to studio problems. Through classroom critiques, students analyze multiple solutions to painting problems. Prerequisite: Completion of ART 1050.

**ART 1110  (3 cr.)**
**Foundation: Two Dimensional**
A course exploring the principles of art structure taught through a series of exercises in the visual organization of line, plane, value, mass, texture, shape, space, movement, and color. Emphasis on studio problems and individual solutions. Prerequisites: Completion of DVST 0510 or ENGL 0510 and DVST 0630 or ENGL 0630 (or equivalent placement test scores).

**ART 1120  (3 cr.)**
**Foundation: Three Dimensional**
A continuation of ART 1110. A course exploring the principles of art structure taught through a series of exercises in the visual organization of line, plane, value, mass, texture, shape, space, movement, and color. Emphasis on studio problems and individual solutions. Prerequisite: Completion of ART 1110.

**ART 1250  (3 cr.)**
**Water-based Media I**
Students practice a wide variety of technical processes with water-based media and develop their compositional skills. Through classroom critiques, students analyze multiple solutions to painting problems.

**ART 1260  (3 cr.)**
**Water-based Media II**
In this continuation of ART 1250, students gain knowledge about color theory and experiment with color palettes to produce desired effects. The historically significant works of contemporary painters and old masters are reflected in student projects. Prerequisite: Completion of ART 1250.

**ART 1490  (3 cr.)**
**Exhibition Technology**
Students gain a general understanding of the nature of galleries and museums, their programs, personnel, philosophies, and methodologies. Students acquire experience in the development of an exhibition theme or concept, identification of the audience and the objectives of the exhibit, and collection and research of artifacts that support the exhibit theme. Preparation of the physical installation of the exhibit and the coordination of publicity for the exhibit will be included.

**ART 1510  (3 cr.)**
**Handbuilt Ceramics**
An introductory course in basic ceramic techniques for sculpture production designed especially for nonmajors. Students apply technical knowledge to form, glaze, and fire sculpture and trace historical trends in sculpture and contemporary sculptors. To practice design concepts, students produce a freestanding form, a figurative sculpture, a series of multiple form sculptures, and an independent project. (This course does not fulfill LCCC’s humanities/fine arts requirement.) Additional Fee.

**ART 2010  (3 cr.)**
**Art History I**
Students acquire introductory knowledge of the major arts of the world from pre-history to medieval, including pre-historic European, ancient near-Eastern, Egyptian, Aryan, Greek, Etruscan, Roman, African, Chinese, Japanese, Indian art and art from the Americas, through the Middle Ages. Also included is art from the Byzantine, Medieval, Romanesque, Gothic, Judaic, Christian, and Islamic movements. Prerequisites: Completion of DVST 0510 or ENGL 0510 and ENGL 0700 or ENGL 1001 (or equivalent placement test scores).

**ART 2020  (3 cr.)**
**Art History II**
Students acquire introductory knowledge of the major arts of the world from the Renaissance, Baroque, and Rococo periods to the modern and post-modern eras, including the arts of Africa, China, Japan, Pacific Island cultures, and the Americas. Prerequisites: Completion of DVST 0510 or ENGL 0510 and ENGL 0700 or ENGL 1001 (or equivalent placement test scores).
ART 2050 (3 cr.)
Life Drawing I
This course provides instruction for drawing the human form. Working from clothed and nude models, students demonstrate an understanding of line, value, composition, realistic interpretation, self-expression, and the human form as art. Prerequisite: Completion of ART 1050 or equivalent skills. Instructor approval required.

ART 2060 (3 cr.)
Life Drawing II
In this continuation of ART 2050, students expand and refine their skills in drawing the human form. Working from clothed and nude models, students demonstrate an understanding of line, value, composition, realistic interpretation, self-expression, and the human form as art. Prerequisite: Completion of ART 2050. Instructor approval required.

ART 2065 (3 cr.)
Life Drawing III
As a continuation of ART 2060, this course allows students further opportunity to translate the three-dimensional human form into two-dimensional compositions by improving their abilities in the areas of accurate proportions and forms, illusion of light, and the addition of details. Students are encouraged to use additional media to become more expressive in their individual styles and to analyze their strengths and weaknesses. Prerequisite: Completion of ART 2060. Instructor approval required.

ART 2080 (3 cr.)
Drawing III
In this continuation of ART 1060, students create a thematic series of works and present them with a written descriptive analysis. Students prepare their work for exhibition and build a portfolio. Prerequisite: Completion of ART 1060.

ART 2090 (3 cr.)
Introduction to Printmaking
Students gain skills in the use of materials and techniques for creating original art through the “indirect process” of printmaking. Students also design the surface used to print the image(s). Art projects will include relief printing and monoprinting. Additional Fee.

ART 2110 (3 cr.)
Beginning Painting
Students utilize a variety of painting techniques and art terms to produce a portfolio of work based upon design elements and principles. The historically significant works of contemporary painters and old masters are reflected in student projects. Topics include color and light phenomena in nature and in painting. Students are encouraged to produce unique work and to understand their artistic intentions.

ART 2200 (3 cr.)
Painting II
In this continuation of ART 2210, students continue to practice a variety of painting techniques and to refine their understanding of concepts. They expand upon their personal strengths and increase their ability to recognize stylistic trends. Prerequisite: Completion of ART 2210.

ART 2220 (3 cr.)
Painting III
In this continuation of ART 2220, students develop advanced perceptual skills, improve their technical abilities, and gain a deeper understanding of and concern for the content of their work. Students also generate their own personal objectives and critique their work according to the elements and principles of design. Prerequisite: Completion of ART 2220.

ART 2235 (3 cr.)
Advanced Painting
Students develop an understanding of the “process” of creating paintings within the parameters of a variety of painting techniques. Individual solutions to group assignments are discussed within classroom critiques. Prerequisite: Instructor approval required. Drawing and painting skills are required.

ART 2240 (3 cr.)
Water-based Media III
In this continuation of ART 1260, students develop a portfolio of work with a thematic/stylistic cohesiveness and present a written descriptive analysis. Students prepare their work for exhibition. Prerequisite: Completion of ART 1260.

ART 2310 (3 cr.)
Sculpture I
An introductory course in additive and subtractive construction of three-dimensional form. Students trace the historical trends in sculpture, recognize contemporary sculptors, and develop a vocabulary that can be used in discussing sculpture. Emphasis is on the presentation of studio problems and their solutions through personal expression. Additional Fee.

ART 2320 (3 cr.)
Sculpture II
A course in the study of three-dimensional form building upon knowledge gained in ART 2310. Investigation continues in the varied techniques of sculpture including welded metal, stone carving, and clay working. Students manipulate the form and imagery in representational and nonrepresentational art work. Emphasis is on current sculptural applications and the work of contemporary sculptors. Prerequisite: Completion of ART 2310. Additional Fee.

ART 2330 (3 cr.)
Sculpture III
Students explore metal sculpture and metal work involving the fundamentals of oxyacetylene welding. Students acquire and demonstrate simple techniques and proper safety procedures. Students recognize the signatures of metal sculpture by late 20th century artists. Prerequisite: Completion of ART 2320. Additional Fee.

ART 2340 (3 cr.)
Metals I
An introductory course in basic jewelry-making techniques. Students acquire technical skills in cutting, piercing, finishing, soldering, bezel stone setting, and texturing metal with an emphasis on design. Additional Fee.

ART 2350 (3 cr.)
Metals II
A continuation of ART 2340. Students gain knowledge and technical skill in fabrication, chain making, hinges and casting techniques used in jewelry design. Prerequisite: Completion of ART 2340. Additional Fee.

ART 2360 (3 cr.)
Metals III
A continuation of ART 2350. Students acquire technical skill in repoussé, chasing and forging. Students also develop skills in metal working and jewelry design. Prerequisite: Completion of ART 2360. Additional Fee.
Astronomy

ASTR 1050
Survey of Astronomy
A one-semester course where students gain a greater understanding of astronomy through direct observation, laboratory application, and lecture. Students compare the planets and satellites in our solar system, sort out the life, birth, and death of stars, and recognize unique objects such as quasars and black holes. Consists of three hours of lecture and a two-hour laboratory. Observing sessions will be scheduled at night. Prerequisite: Completion of MATH 0920 and ENGL 0630 or DVST 0630 (or equivalent placement test scores). Additional Fee.

Automotive Body Repair

AUBR 1500
Auto Body Hand/Hydraulic Tools
This course is an introductory course into the auto body repair field, focusing on hand, power, and hydraulic tools common to the trade. Students identify different tools available for repairs and demonstrate their proper and safe usage through various shop projects including vehicle trim and hardware identification and removal, as well as exterior panel replacement. Students gain skill in determining the proper selection and use of personal protection equipment for use on hazardous materials found in body/ paint shops. Additional Fee.

AUBR 1510
Introduction to Auto Body Repair
An introductory course in auto body repair. Students develop knowledge of basic procedures used in auto body repair. Students gain skill in and knowledge of shop safety, tools and equipment, metal straightening basics, welding basics, trim and accessories, and painting and refinishing procedures.

AUBR 1520
Collision Damage Appraising
Students acquire and demonstrate knowledge of different estimating systems, manuals, and procedures currently in use in the auto body repair field. Students also prepare both handwritten estimates and computer-generated estimates using P-page logic and abbreviations. In addition, students gain knowledge in all aspects of the estimating process including customer service, visual analysis, supplements, organization, and insurance influences. Additional Fee.

AUBR 1540
Auto Body Welding
Students gain the knowledge and skills necessary to identify the different types of metal used in today's vehicle construction and determine which are weldable. Students explore the different welding equipment and techniques available to shops and gain skill in performing the WELD styles common to body repair and panel replacement. Additional Fee.

AUBR 1550
Auto Body Repair I
Students examine the fundamentals of collision repair, straightening nonstructural steel, and moveable glass replacement. Students gain skill in identifying the characteristics of different metals and plastic fillers and demonstrate industry repair procedures for dent removal. Additional Fee.

AUBR 1560
Auto Body Repair II
This course is a continuation of AUBR 1550. Students gain the knowledge and skills necessary to identify and demonstrate repair procedures for the different types of plastics and aluminum used in today's vehicle construction. Students also explore the use of techniques for adhesive bonding. Additional Fee.

AUBR 1570
Auto Body Repair III
This course is a continuation of AUBR 1560. Students continue to gain knowledge and skill development in repair procedures for damaged automotive sheet metals and plastics. In addition, they demonstrate specific repair procedures for large areas of damage and patch panel repairs. Additional Fee.

AUBR 1580
Auto Body Repair IV
This course is the last in the Auto Body Repair series of courses. Students review and expand upon the lessons covered in AUBR 1550, 1560, and 1570. Prerequisites: Completion of AUBR 1550, AUBR 1560, and AUBR 1570. Additional Fee.

AUBR 1600
Auto Body Upholstery
Basic techniques of automobile interior refinishing along with a study of spring construction, fillings, and fabrics are covered. Manipulative skills are developed through practice projects on seats, panels, and arm rests. Additional Fee.
AUBR 1710 (3 cr.) Frame and Chassis I
This course is an introduction into frame designs, unibody structural parts, and steering/suspension components. Students examine different types of measuring and straightening equipment for structural parts and demonstrate their proper and safe usage. Students also identify the common types of suspension design and the parts contained in each Additional Fee.

AUBR 1720 (3 cr.) Frame and Chassis II
This course is a continuation of AUBR 1710. Students demonstrate structural damage analysis and repair techniques for steel and aluminum structural parts. Students also gain the skills necessary to identify, repair properly, and work safely around restraint system components. Additional Fee.

AUBR 1810 (3 cr.) Collision Damage Repair I
In this course, students examine procedures for repairing extensive body damage, including welded or bonded outer body panel, and for replacing structural parts. Students also demonstrate advanced body repair skills. Prerequisites: Completion of AUBR 1540 and AUBR 1550 or consent of instructor. Additional Fee.

AUBR 1820 (3 cr.) Collision Damage Repair II
This course is a continuation of AUBR 1810. Students gain experience in performing structural parts repair, replacement, and sectioning following industry-approved procedures. Additional Fee.

AUBR 1830 (3 cr.) Collision Damage Repair III
This course is designed to provide more in-depth training and skill improvements in the area of heavy collision repair. Students acquire/ demonstrate knowledge and skill in repair procedures and operations required to make a totaled vehicle roadworthy and safe. This course is for full-time, fourth-semester students. Additional Fee.

AUBR 1910 (3 cr.) Auto Paint I
This course is an introduction into vehicle refinishing. Students examine different types of refinishing equipment and materials designed to duplicate factory finishes. They develop skills in surface preparation, masking vehicles, and application techniques for different refinish products. Additional Fee.

AUBR 1920 (3 cr.) Auto Paint II
This course is a continuation of AUBR 1910. Students acquire and demonstrate basic knowledge and skills in spot repairs, color matching, paint mixing, and overall refinish procedures. They also examine the identification, causes, and corrections for common paint problems. Additional Fee.

AUBR 1930 (3 cr.) Auto Paint III
This course is a continuation of AUBR 1920. Students exhibit a greater proficiency in the skills demonstrated in AUBR 1910 and 1920. They examine and apply advanced vehicle refinishing techniques. Additional Fee.

AUBR 1940 (3 cr.) Auto Paint IV
Supplemental to Auto Paint III. Additional Fee.

AUBR 1950 (1-15 cr.) Practicum (Area of Specialty)
Practice courses are supplemental in nature and aligned to a particular course contained in a regular instructional program. These courses list the course titles they are augmenting plus the word “practicum.” They are designed to enhance the learning process by providing additional, supervised hands-on experiences. A student may take up to 15 credit hours in practicum courses as approved by the instructor. Additional Fee.

AUBR 2500 (3 cr.) Advanced Auto Body Upholstery
A continuation of AUBR 1600, emphasizing advanced techniques of automobile interior refinishing. Students acquire and demonstrate knowledge of the operation and care of industrial sewing machines and other upholstery equipment. They acquire and demonstrate skill and knowledge in layout of patterns, constructing patterns where none exist, and disassembly and reassembly of various interiors. Prerequisite: Completion of AUBR 1600 or equivalent preparation. Additional Fee.

AUTO 1510 (4 cr.) Engine System Fundamentals
Basic introduction to engine operation, design, and service procedures. Students demonstrate precision measuring, engine disassembly and reassembly, diagnosis of engine problems, cylinder head reconditioning, and parts analysis. Additional Fee.

AUTO 1530 (3 cr.) Small Engine Maintenance and Tune-Up
A course offering instruction in small engine service and adjustment, concentrating on skills of diagnosis and total repair or rebuilding of small engines. Types of engines include lawn mowers, chain saws, snowmobiles, marine engines, and auxiliary equipment of 35 horsepower or less. Additional Fee.

AUTO 1560 (2 cr.) Auto Technology Oxyacetylene Welding
In this introduction to oxyacetylene welding as applied to diesel technology, students acquire/demonstrate knowledge and skill in gas welding techniques, brazing, flame cutting, and related safety practices. Additional Fee.

AUTO 1600 (3 cr.) Fuel Systems I
This is an intensive study of automotive fuels and carburetion systems such as single, double, and four-barrel carburetors, and carburetor circuits. Students learn emission control as it applies to the fuel system. Emphasis is on the shop procedure necessary in determining the nature of troubles developed in the fuel and emission system of the automobiles causing air pollutants. There is also troubleshooting on the fuel and emission systems providing a full range of testing, adjusting, tune-up, and replacing experiences. Additional Fee.

AUTO 1630 (3 cr.) Starting and Charging Systems
Students learn the theories of starting and charging systems. Starters and alternators will be disassembled, tested and reassembled, and then bench tested for operation. Following successful completion of this phase, students demonstrate the diagnosis and repair of complete systems on live vehicles. Additional Fee.

**Automotive Technology**

AUTO 1500 (3 cr.) Basic Auto Mechanics
Students gain and demonstrate knowledge and skills to understand the automotive service industry and to perform basic preventive maintenance, service procedures, and engine repair. Additional Fee.
AUTO 1690  (3 cr.)
Manual Power Train Fundamentals
This course will cover the theory of 3-speed and 4-speed manual transmissions. Students gain practical experience in the overhaul of manual transmissions, clutches, related parts, and specialized equipment. Proper use of hand tools and safety in the lab will be emphasized. Additional Fee.

AUTO 1730  (4 cr.)
Automatic Transmissions
This course will cover the theory of automatic transmissions. Students gain practical experience in the overhaul of automatic transmissions in popular use today. Proper use of hand tools and specialized equipment and safety in the lab will be emphasized. Additional Fee.

AUTO 1740  (3 cr.)
Brake Systems
Students learn the theory, service, and repair of automotive braking systems and their components. Emphasis is on hydraulic and anti-lock brake theory, the repair of service booster units, master cylinders, and wheel cylinders, caliper rebuilds, and drum and rotor service. Additional Fee.

AUTO 1760  (3 cr.)
Heating and Air Conditioning
Students learn basic heating and air conditioning theory. Students diagnose, repair, and recharge air conditioning systems to OEM specifications. Students diagnose and repair heating and air conditioning automatic systems. Additional Fee.

AUTO 1765  (4 cr.)
Automotive Electrical
Students learn the basic theory of electricity, how to read and interpret wiring diagrams, and how to diagnose and repair individual electrical circuits on vehicles. These circuits include lights, horn, electric windows, power seats, electric defrosters, and other electrical circuits installed on vehicles. Additional Fee.

AUTO 1770  (3 cr.)
Automotive Electronics
Students learn automotive electronic systems' construction functions and principles. System elements will include circuitry, sensors, and on-board computers. Students diagnose and repair all problems on electronically controlled systems. These repairs will be made to OEM specifications. Additional Fee.

AUTO 2530  (2 cr.)
Differentials and Transaxle
This class is designed to provide the student with a working knowledge of differentials and transaxles. Students will be able, after finishing this class, to diagnose, disassemble, repair, and reassemble differentials, transaxles, and drive lines. This will be accomplished by lecture, demonstrations, and lab work. Proper use of hand tools and specialized equipment and safety in the lab will be taught. Additional Fee.

AUTO 2550  (4 cr.)
Auto Alignment and Suspension
Students learn suspension and alignment theory. Suspension systems will be diagnosed, measured, and repaired to OEM specifications. Wheel alignments will be performed on vehicles and adjusted to OEM specifications. These alignments include 4-wheel center point adjustments. Additional Fee.

AUTO 2560  (3 cr.)
Automotive Ignition Systems
Students learn ignition theory and diagnosis and repair of various computerized and noncomputerized ignition systems. Emphasis is placed on developing a comprehensive understanding of all electrical components and systems with special emphasis on problem diagnosis. Additional Fee.

AUTO 2610  (3 cr.)
Automotive Computerized Fuel Systems
Students learn computerized fuel and emission systems. Students gain practical experience on electronic fuel metering, injection, and supercharging and turbocharging systems. Other experiences include air injection, spark control, PCU, EGR, and catalytic converters. Additional Fee.

AVTN 2510  (3 cr.)
Private Pilot Ground School
Students prepare for the Federal Aviation Administration (FAA) airplane private pilot written knowledge examination. Topics include aerodynamics, flight instruments, aircraft performance, airspace, weather, navigation, regulations, weight and balance computation, physiological factors, and communication.

AVTN 2600  (3 cr.)
Airplane Instrument Rating
Students prepare for the Federal Aviation Administration (FAA) airplane instrument rating written knowledge examination. Students gain knowledge in instruments, instrument scan techniques, partial panels, enroute navigation, IFR terminal arrival and departure procedures, instrument approaches, IFT emergencies, ATC system, physiological/psychological factors, meteorology, regulations, and communications.

Biology

BIOL 0900  (2 cr.)
Introduction to Biology
A preparatory science course in which students learn the skills necessary to complete transfer/college-level biology, zoology, or molecular biology classes. Skills to be mastered include critical and analytical analysis of scientific information, an understanding of scientific methods, and a review of basic chemistry and biology. Prerequisites: Completion of DVST 0510 or ENGL 0510 and DVST 0630 or ENGL 0630 (or equivalent placement test scores).

BIOL 1000  (4 cr.)
Principles of Biology
In this introductory course for non-science majors, students examine the fundamental principles of molecular biology, cell biology, genetics, evolution, ecology, and the scientific method. Successful students apply this knowledge to the five kingdoms of life and selected aspects of human biology. Duplicate credit will not be given for BIOL 1010. This course has lecture plus three hours lab time and fulfills a lab science requirement. Elementary education majors planning to transfer to the University of Wyoming must take the companion seminar, EDEL 1430. Prerequisites: Completion of DVST 0510 or ENGL 0510, and DVST 0900 or MATH 0900 (or equivalent placement test scores). Additional Fee.
BIOL 1003  (4 cr.)
**Current Issues in Biology**
In this one-semester course intended for non-science majors, students examine central themes of biology—cell biology, genetics, evolution, ecology—and scientific methodology by focusing on current issues in biology and their relation to humans and the environment. Each week students participate in three hours of lecture/discussion and one three-hour session devoted to laboratory explorations. Students cannot receive duplicate credit for BIOL 1010 or BIOL 1000. Prerequisite: Completion of DVST 0900 or MATH 0900 (or equivalent placement test score). Additional Fee.

BIOL 1010  (4 cr.)
**General Biology**
This is a study of the fundamental concepts of biology primarily at the cellular level. Students examine and acquire knowledge about the basic chemistry of living systems, cell structures and functions, energy relations including photosynthesis and cellular respiration, Mendelian and molecular genetics, molecular biology, population dynamics and evolutionary theory. Students perform experiments during a weekly three-hour laboratory session and demonstrate a working knowledge of the scientific method. This course fulfills requirements for a science laboratory course. All elementary education majors planning to transfer to the University of Wyoming must take the companion seminar (EDEL 1430) in the education department. Prerequisites: Completion of DVST 0510 or ENGL 0510, DVST 0630 or MATH 0630 (or equivalent placement test scores). Additional Fee.

BIOL 2022  (4 cr.)
**Animal Biology**
Students gain knowledge of the evolution, anatomy, physiology, and ecology of animals. Students demonstrate the ability to compare, contrast, and classify animals based upon shared derived characteristics. Students dissect preserved specimens using safe procedures. This course has lecture plus three hours of lab time and fulfills a lab science requirement. Prerequisite: Completion of BIOL 1010. Additional Fee.

BIOL 2023  (4 cr.)
**Biology of Plants and Fungi**
Students gain knowledge of how plants and fungi have evolved, what ecological roles they play in the world, and how species are economically important to humans. Students also contrast and classify plants and fungi based upon shared derived characteristics. Typically, this course has three hours of lecture and three hours of laboratory per week. This course fulfills requirements for a science laboratory course. Prerequisite: Completion of BIOL 1010. Additional Fee.

BIOL 2400  (3 cr.)
**General Ecology**
An introductory course for majors and nonmajors in biology that presents the fundamental concepts in population and ecosystem ecology. Students develop an understanding of ecological principles on a global scale through assigned readings, group discussions, review of current literature, and written and oral assignments. Prerequisite: Completion of BIOL 1010.

BIOL 2410  (2 cr.)
**Introduction to Field Ecology**
A field course in ecology. Students acquire an understanding of the sampling methods employed by population and community ecologists. Emphasis is placed on statistical analysis, data presentation, and technical writing skills. Prerequisite: Completion of BIOL 2400 (may be concurrently enrolled) or consent of instructor. Additional Fee.

BIOL 2445  (1-3 cr.)
**Research Problems in Biology**
Students explore various methodologies employed in biological research, including experimental design, literature searches, data collection, analysis, and research report writing. Students may be required to present their work at public forum. Prerequisite: Consent of instructor.

BIOL 2470  (1-3 cr.)
**Field Methods in the Biological Sciences**
A field trip study of the biological characteristics of various locations. Students identify plants and animals native to the ecosystem as well as these organisms' adaptation to the ecosystem under study. Prerequisite: Consent of instructor.

BIOL 2485  (1 cr.)
**Biology Seminar**
A seminar in which students meet with faculty members in order to review current topics in biology. Students gain a working knowledge and proficiency regarding a previously agreed upon topic. Students demonstrate their understanding of the seminar topic through group discussions, review of current literature, written and oral assignments, and laboratory reports. Prerequisite: Completion of BIOL 1010.

**Botany**

BOT 2100  (3 cr.)
**Principles of Forest Management**
A survey course in which students explore a wide range of forestry and wood science topics, including the laws affecting forest management, methods of harvesting wood from forests, fire and insect management, the effects of disturbances on stream flow and nutrient cycling, and the challenges of developing management plans for forests. Prerequisite: Completion of BIOL 1010.

**Business**

BUSN 2000  (3 cr.)
**International Business**
Students develop knowledge of the diverse cultural impact on multinational trade, marketing, finance, management, and government policies. Emphasis will be on the cultural dynamics of global business. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

**Business Administration**

BADM 1000  (3 cr.)
**Introduction to Business**
A study of the role of business in the American economy including ownership, organization, and management of business firms and an introduction to the basic functional areas of marketing, finance, production, and personnel. Consideration is given to the interrelationships among significant business activities. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

BADM 1020  (3 cr.)
**Business Communication**
A course in the development of skills in originating both written and oral communications within the business context. Prerequisite: Completion of ENGL 1010.
BADM 1021 (1 cr.)
Customer Service I
This introductory course will cover topics relevant to customer service such as response time, professional appearance and attitude, communications, telephone skills, and postal services. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

BADM 1022 (1 cr.)
Customer Service II
This course is an advanced customer service class. The major emphasis of the course will be studying the various types of customers and how to deal with them through written and oral communication. Prerequisite: Completion of BADM 1021.

BADM 1031 (1 cr.)
Personal Financial Planning
This course examines the foundations of personal financial planning. Topics include the financial planning process, financial statements, taxes, and the management of basic assets such as cash and savings instruments, housing, and automobiles. Students also become knowledgeable about the key concepts and procedures used in sound personal financial planning and effective money management. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

BADM 1032 (1 cr.)
Risk and Credit Management
This course examines credit management including the various types of open account borrowing and consumer loans. Topics include the managing and wise use of credit; ways to avoid credit problems; risk management as it deals with managing insurance needs, life, health care, and property insurance; and life cycle issues and their effect on insurance needs. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

BADM 1033 (1 cr.)
Investment/Retirement Planning
This course explores investments, including stocks, bonds, and mutual funds. Students become knowledgeable about making transactions in the securities market and the role personal computers play in the world of investing. Students also gain an understanding of the relationship between changing life cycles and investment portfolio, retirement plans and goals, retirement program regulations, and estate preservation through proper planning. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

BADM 2010 (3 cr.)
Business Law I
An introductory survey course providing a broad overview of business-related legal topics. Students become knowledgeable about the nature and sources of law, court systems, common law, statutory law, constitutional law, business torts, intellectual property, product liability, business ethics, and contracts. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

BADM 2020 (3 cr.)
Business Law II
A course in which students become knowledgeable about the basic principles of agency, employment and labor relations, forms of business ownership, partnership, limited partnership, joint-venture, corporations, security regulation, and administrative and consumer law. Prerequisite: Completion of BADM 2010.

BADM 2030 (3 cr.)
Business Ethics
Students examine the nature of ethical behavior in business and its broader implications for society. They gain knowledge of the history of ethics in business, factors that impact the ethical decision-making process in business, and the global aspect of business ethics. Students also gain skills and strategies to develop and evaluate a business code of ethics as well as employee training programs on ethical business behavior. Prerequisite: Completion of BADM 1000 or advisor approval.

BADM 2100 (3 cr.)
Small Business Practices
A course exploring the components of starting a small business. Students become knowledgeable about legal issues and those details of the business plan that are significant for business organizations. This course is for the person with limited or no business experience who is considering establishing and operating a small business. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

BADM 2120 (3 cr.)
Financing a Small Business
A course exploring the basics of financing a small business through private sources and special Wyoming funding programs. Topics include sources of capital, types of private and public loans, maintaining a positive cash flow, balance sheets, profit and loss statements, financial ratios, depreciation, and taxation. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

Business Office Technology

BOTK 1655 (2 cr.)
Speed and Accuracy Development
A keyboarding review course emphasizing speed and accuracy. Proofreading skills are stressed. This course is designed to improve the student’s keyboarding speed and accuracy and proofreading skills through directed drills and practice. Prerequisite: Ability to key by touch at 25 words a minute on a three-minute timing with five or fewer errors.

BOTK 2750 (3 cr.)
Records and Information Management
An introduction to business records management including systematic control over the creation, distribution, utilization, retention, storage, protection, preservation, and final disposition of all types of records within an organization. This course also presents storage systems and Association of Records Managers and Administrators (ARMA) filing procedures. Prerequisites: Completion of DVST 0520 or ENGL 0520, ENGL 0700 or ENGL 1001, and MATH 0920 (or equivalent placement test scores).

BOTK 2900 (3 cr.)
Office Systems and Procedures
A course designed to provide the business office technology major a perspective on the role of office personnel. Time management, contemporary telecommunication, recording and transcribing minutes of meetings, using laptop computers, meeting or conference planning, presentation skills, portfolio development, and related topics are practiced to assist the student in preparing for a rapidly changing work environment. Prerequisites: Completion of BOTK 1540 and BOTK 1640 or instructor approval.
**Chemistry**

**CHEM 1000**

**Introductory Chemistry**
(4 cr.)

A study of basic concepts in chemistry and their relationship to biological systems. Students operate a hand-held calculator to solve unit conversions and problems relating to basic chemical concepts involving chemical formulas, balanced equations, solutions, the gaseous state, chemical equilibrium, nuclear chemistry, acid-base and oxidation-reduction chemistry, apply scientific reasoning and processes to organize, analyze, and interpret chemical data, and write structures of and names for organic molecules. Prerequisites: Completion of DVST 0510 or ENGL 0510, DVST 0630 or ENGL 0630, and MATH 0920 (or equivalent placement test scores.) Additional Fee.

**CHEM 1003**

**Elements of Chemistry**
(3 cr.)

A study of elementary concepts in chemistry with emphasis on problem-solving techniques for students who have had no previous chemistry experience. Students write chemical formulas and balance equations; operate a hand-held calculator to perform chemical calculations; use the mole and stoichiometric concepts; discuss atomic structure and the properties of solids, liquids, and gases; and name and write structures for simple chemical compounds. Prerequisites: Completion of DVST 0510 or ENGL 0510, DVST 0630 or ENGL 0630 and MATH 0920 (or equivalent placement test scores).

**CHEM 1020**

**General Chemistry I**
(5 cr.)

A first-semester course of a two-semester sequence for science and chemistry majors. Students develop problem-solving skills using the factor-label method, demonstrate proficiency in the use of the metric system, perform laboratory experiments, employ computers and/or calculators to graph and analyze chemical data, solve quantitative chemical problems using formulas and equations, and discuss qualitatively and quantitatively chemical bonding, thermochemistry, properties of gases, liquids, solids, and organic compounds. Prerequisite: Completion of MATH 1400 or concurrent enrollment (or equivalent placement test scores). Additional Fee.

**CHEM 1030**

**General Chemistry II**
(4 cr.)

A second-semester course of a two-semester sequence for science and chemistry majors. Students discuss and solve problems for acid-base, ionic, oxidation-reduction, and nuclear reactions, thermodynamics, kinetics, equilibrium, and electrochemistry; perform laboratory experiments; graph chemical data using computers; and acquire and interpret spectra data using laboratory instruments. Prerequisite: Completion of CHEM 1020. Additional Fee.

**CHEM 2110**

**Glassblowing I**
(1 cr.)

A course introducing students to the basic techniques of glassblowing. Students fabricate T-joints, butt joints, and ring seals; repair scientific glassware; and complete a glassblowing project.

**CHEM 2320**

**Organic Chemistry I**
(3 cr.)

A first-semester course of a two-semester sequence for science and chemistry majors. Students learn molecular orbitals and discuss bonding within molecules; name and write structures and reaction products for alkanes, alkenes, conjugated dienes, and radicals; discuss and distinguish stereoisomers; calculate free-energy changes and apply equilibrium concepts to chemical reactions; write the products of substitution and elimination reactions; and interpret spectra. Prerequisite: Completion of CHEM 1030.

**CHEM 2325**

**Organic Chemistry Lab I**
(1 cr.)

A first-semester course of a two-semester laboratory sequence for science and chemistry majors. Students perform laboratory techniques for the preparation, separation, purification, and characterization of organic compounds; and operate the nmr, FT-ir, gc-ms, and uv-vis instruments. Corequisite: CHEM 2320. Prerequisite: Completion of CHEM 1030. Additional Fee.

**CHEM 2340**

**Organic Chemistry II**
(3 cr.)

A second-semester course of a two-semester sequence for science and chemistry majors. Students name and write structures and reaction products for alkenes; write the products of electrophilic aromatic substitution reactions; write structures and reaction products for carbonyl compounds, alcohols, ethers, carboxylic acids and their derivatives (amines, some simple sugars, amino acids, and nucleic acids); and interpret spectra. Prerequisite: Completion of CHEM 2320.

**CHEM 2345**

**Organic Chemistry Lab II**
(1 cr.)

A second-semester course of a two-semester laboratory sequence for science and chemistry majors. Students synthesize and characterize a number of molecules containing a variety of functional groups; operate the laboratory instruments which include nmr spectrometer, FT-ir spectrometer, gas-chromatograph-mass spectrometer, and uv-vis spectrometer; and handle chemicals in a safe manner while performing experiments. Corequisite: CHEM 2340. Prerequisite: Completion of CHEM 2325. Additional Fee.

**Communication**

**CO/M 1010**

**Public Speaking**
(3 cr.)

A course emphasizing skills in the construction and the delivery of prepared speeches. Topics include research, organization, and delivery. Prerequisite: Successful completion of DVST 0510 or ENGL 0510 (or equivalent placement test score) and eligibility for ENGL 0700 or ENGL 1001.

**CO/M 1030**

**Interpersonal Communication**
(3 cr.)

A course emphasizing human communication skill development. Topics include perception, verbal and nonverbal communication, relationship development, and conflict management. Prerequisites: Successful completion of DVST 0510 or ENGL 0510 (or equivalent placement test score) and eligibility for ENGL 0700.

**CO/M 1040**

**Introduction to Human Communication**
(3 cr.)

A course introducing students to the various forms of human communication. Topics include intra- and interpersonal communication, group communication, intercultural communication, mass communication, and organizational communication. Prerequisites: Successful completion of DVST 0520 or ENGL 0520 (or equivalent placement test score) and eligibility for ENGL 1010 with a grade of C or better.

**CO/M 2060**

**Forensics Practicum**
(3 cr.)

Student speakers enhance their speaking, competitive, and interpersonal skills. The Laramie County Community College forensics team consists of students enrolled in this course. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score). May be repeated for up to 12 credit hours.
Computer Applications

CMAP 1500 (1 cr.)
**Computer Keyboarding**
Students become familiar with basic computer keyboarding, keyboard by touch, and key straight copy at a speed of 29 words a minute or more on a three-minute timing. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score). (S/U grade only)

CMAP 1502 (2 cr.)
**Computer Input Technologies**
Students become knowledgeable about basic input technology skills including basic computer keyboarding and basic voice input technologies. Students acquire abilities to keyboard by touch and key straight copy at a speed of 29 words a minute or more on 3 three-minute timings and develop computer voice recognition skills to voice-type 120-150 words a minute at 97 percent accuracy. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score). (S/U grade only)

CMAP 1503 (3 cr.)
**Introduction to Computer Applications**
An introductory course in computer applications. Students develop knowledge of basic skills in computer applications. Students gain skill and knowledge of software use, Windows, word processing, spreadsheet, presentation graphics, and database applications. This course serves as a prerequisite for CMAP 1705, CMAP 1755, and CMAP 1805.

CMAP 1500 (1 cr.)
**Windows I**
Students are provided with a basic understanding of the windowing environment used with IBM and IBM-compatible microcomputers. Specific topics with Windows include introduction to file management, running application programs, and desktop management.

Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

CMAP 1501 (1 cr.)
**Windows II**
Students become knowledgeable about Windows fundamentals as they pertain to operating system functionality, file management, running application programs, and desktop management.

Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

CMAP 1610 (1 cr.)
**Advancing Word Processing**
This course introduces students to popular operating systems (OS) and helps prepare them to support some OS functions, specifically preparing the student to take the A+ operating system exam. Topics covered include the startup process, device drivers, hard disk setup, and the Microsoft Windows family—setup and upgrade, Linux setup, and DOS basics. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

CMAP 1615 (3 cr.)
**Operating Systems**
This course introduces students to popular operating systems (OS) and helps prepare them to support some OS functions, specifically preparing the student to take the A+ operating system exam. Topics covered include the startup process, device drivers, hard disk setup, and the Microsoft Windows family—setup and upgrade, Linux setup, and DOS basics. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

CMAP 1616 (3 cr.)
**Operating Systems II**
This course introduces students to popular operating systems (OS) and helps prepare them to support some OS functions, specifically preparing the student to take the A+ operating system exam. Topics covered include the startup process, device drivers, hard disk setup, and the Microsoft Windows family—setup and upgrade, Linux setup, and DOS basics. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

CMAP 1620 (2 cr.)
**Introduction to Networking**
This course provides students with a basic understanding of local area networking using a popular LAN system. Students become knowledgeable about and acquire an understanding of networking fundamentals (components, topologies, protocols, and security), and commonly used network commands.

Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

CMAP 1630 (1 cr.)
**Introduction to Linux**
This course introduces students to popular operating systems (OS) and helps prepare them to support some OS functions, specifically preparing the student to take the A+ operating system exam. Topics covered include the startup process, device drivers, hard disk setup, and the Microsoft Windows family—setup and upgrade, Linux setup, and DOS basics. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

CMAP 1634 (2 cr.)
**XML Fundamentals for Developers**
This course introduces the student to the basics of XML (Extensible Markup Language). Students demonstrate knowledge of the usefulness of XML and the parts of an XML document. Students create XML documents and format, query, validate and store their XML documents in a database and access a database from an XML document using SQL (Structured Query Language).

Prerequisites: Completion of CMAP 2835 and INET 1583.

CMAP 1650 (1 cr.)
**Introduction to Networking**
This course provides students with a basic understanding of local area networking using a popular LAN system. Students become knowledgeable about and acquire an understanding of networking fundamentals (components, topologies, protocols, and security), and commonly used network commands.

Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

CMAP 1685 (1 cr.)
**Using Computers I**
A course in which students acquire knowledge about current computer concepts, terminology, and software. Word processing, spreadsheet, and database applications focus on a specified curriculum, which may vary with each offering. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

CMAP 1700 (1-2 cr.)
**Word Processing I**
Students acquire beginning word processing skills including document creation, deleting and inserting text, moving, copying, printing, text formatting, using multiple documents, finding and replacing text, running spell check, using writing tools, and creating tables. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

CMAP 1705 (1 cr.)
**Word Processing II**
Students acquire intermediate word processing skills including mail merge concepts, integrating contact list, creating labels, sorting text and data, using styles, templates, using columns and typesetting by using drawing, graphics, text special effects, and developing charts. Prerequisite: Completion of CMAP 1700 or instructor approval.

CMAP 1710 (3 cr.)
**Word Processing III**
Students acquire advanced word processing skills including creating online forms, writing macros; developing master documents, indexes, and tables of contents; and integrating with other applications. Prerequisite: Completion of CMAP 1705 or instructor approval.

CMAP 1715 (3 cr.)
**Word Processing IV**
Word processing essential level skills will be presented in a semester-long course. Students use word processing software to create memorandums, letters, envelopes, minutes, reports, tables, newsletters, and related documents.

CMAP 1730 (1 cr.)
**Adobe Acrobat I**
In this course, students develop the skills necessary to create, edit, and distribute PDF documents for business, Web, and educational purposes. Successful students learn to create original PDF documents as well as create them from other applications including Microsoft Word, Excel, PowerPoint, and Access.

CMAP 1731 (1 cr.)
**Adobe Acrobat II**
In this course, students develop the skills necessary to use advanced Acrobat features, including edit tracking and comment features, adding digital signatures and document security to PDF files, optimizing PDF documents to meet government accessibility standards for use on the World Wide Web, and conducting online meetings.
CMAP 1732  (1 cr.)
Adobe Acrobat III
In this course, students develop the skills necessary to create, edit, and distribute PDF forms with editable fields in a Web-accessible format, add multimedia elements to PDF documents, and create PDF indexes.

CMAP 1750  (1 cr.)
Spreadsheet Applications I:
Students are provided with a basic understanding of spreadsheet applications. Students learn how to use spreadsheet commands to build and maintain spreadsheets using a popular electronic spreadsheet program. Prerequisite: Completion of DVST 0510 or ENGL 0510 and MATH 0920 (or equivalent placement test score).

CMAP 1755  (1 cr.)
Spreadsheet Applications II:
This course provides students with a more thorough understanding of spreadsheet applications. Topics covered include advanced printing, graphics and functions, data tables, data query, file operations, and macros. Prerequisite: Completion of CMAP 1750 or equivalent preparation.

CMAP 1760  (1 cr.)
Spreadsheet Applications III:
Students develop advanced skills beyond skills taught in CMAP 1755, to create spreadsheets. Emphasis is on business applications. Students learn to create advanced data tables, modeling using scenario manager, solving complex problems, import data from other applications, create and use advanced macros, and write simple Visual Basic for applications. Prerequisite: Completion of CMAP 1755 or equivalent preparation.

CMAP 1800  (1 cr.)
Database Applications I:
A study of the techniques used in file organization, storage, and retrieval using a popular database management system. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

CMAP 1805  (1 cr.)
Database Applications II:
Students develop intermediate skills used in creating and using database applications. Emphasis is on business applications. Prerequisite: Completion of CMAP 1800 or instructor permission.

CMAP 1810  (1 cr.)
Database Applications III:
Students develop advanced skills used in creating and using database applications. Emphasis is on business applications. Prerequisite: Completion of CMAP 1805 or instructor permission. (Cross-listed as DBMS 1810.)

CMAP 1886  (1 cr.)
Microsoft Outlook
This course introduces students to the popular Microsoft Office Outlook software. Students develop the ability to customize Outlook, use e-mail client, manage Outlook’s contacts, use Outlook calendar, manage tasks, use Outlook journal component, and share folders and files with other Outlook users. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

CMAP 1920  (3 cr.)
Computer Hardware Maintenance
A course designed to provide students with the skills necessary to install and troubleshoot hardware devices. Topics include system setup, RAM, hard and floppy drives, data buses, power supplies, I/O cards, and diagnostic tools. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

CMAP 2471  (1 cr.)
PC Support Skills
Students acquire knowledge and skills in maintaining and troubleshooting PCs. Topics include security, safety, environmental issues, communication, and professionalism, as well as installing, configuring, upgrading, and troubleshooting hardware and operating systems.

CMAP 2472  (1 cr.)
Advanced PC Support Skills
Students acquire knowledge and skills enabling them to identify and resolve a variety of desktop operating system issues, including issues related to installation, desktop management, file and folder access, hardware, and connectivity.

CMAP 2473  (1 cr.)
PC Application Support Skills
Students acquire advanced knowledge and skills that enable them to resolve issues with application software running on Windows operating systems.

CMAP 2550  (3 cr.)
Visual Basic Programming
Students acquire knowledge and skills about programming techniques in the current version of Microsoft Visual Basic, an event-driven programming language. Topics include designing Windows applications using forms and controls and accessing databases and files. Prerequisite: Completion of COSC 1010 or equivalent experience.

CMAP 2560  (3 cr.)
Introduction to Linux/UNIX
Students acquire knowledge and skills about the UNIX operating system using a Linux server as a learning platform. Students access the server remotely and do not need to install Linux on their home computer. Topics include basic and advanced commands, use of the mail system, file and directory structures, and basic shell scripting. Prerequisite: Completion of COSC 1010 or equivalent experience.

CMAP 2580  (3 cr.)
Web Programming
Students acquire knowledge and skills necessary to create computer programs for use on the Web. Topics include popular scripting languages, client and server side scripting, database access, XML, and other current Web programming concepts. Prerequisites: Completion of CMAP 2550 and INET 1581 or equivalent experience.

CMAP 2630  (1 cr.)
Presentation Graphics:
Microsoft PowerPoint
This course introduces students to a presentation graphics program. Students develop skills in creating slide and outline presentations, utilizing clip art in presentations, and importing graphs and tables into presentations. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

CMAP 2810  (1 cr.)
Scripting In:
Students acquire scripting skills in a specific language, which may vary with each offering. Students apply basic language commands and structures to a project in their area of interest. Prerequisite: Completion of COSC 1010 or equivalent.

CMAP 2835  (3 cr.)
Introduction to SQL
Students acquire knowledge and skills in Structured Query Language using a relational database management system as a platform. Students create and maintain databases and database objects. Topics include queries, subqueries, views, and functions. Prerequisite: Completion of COSC 1010 or equivalent experience.

CMAP 2887  (3 cr.)
Java Programming
Students acquire knowledge and skills required to program in Java. Topics include Java language fundamentals, event-driven programming, and accessing databases and files. Prerequisite: Completion of COSC 1010 or equivalent experience.
Computer Applications – Cisco

CSCO 2000 (3 cr.)
Cisco: Internetworking I
Students acquire knowledge and skills about network fundamentals. Students develop skills in hardware for a local area network, the OSI model, wiring standards, design, topologies, network classes, and an introduction to routed protocols. Students install network cabling and apply standards in selecting equipment locations. This is the first of four courses designed to guide the student toward a CCNA (Cisco Certified Network Associate) certification. Prerequisite: Completion of CSCO 1200 or instructor approval.

CSCO 2010 (3 cr.)
Cisco: Advanced Internetworking I
Students acquire knowledge and skills about router configuration and associated hardware and software. They develop skills in the OSI model, LAN devices, IP addressing, router and routing protocols, router modes, and access lists. This is the second of four courses designed to guide the student toward a CCNA (Cisco Certified Network Associate) certification. Prerequisite: Completion of CSCO 2000.

CSCO 2020 (3 cr.)
Cisco: Advanced Internetworking II
Students acquire knowledge and skills about advanced virtual local area networks and LAN design. They develop skills in advanced IP addressing techniques, intermediate routing protocols, and command-line interface configuration of switches. This is the third of four courses designed to guide the student toward a CCNA (Cisco Certified Network Associate) certification. Prerequisite: Completion of CSCO 2010.

CSCO 2025 (3 cr.)
Cisco: Advanced Internetworking III
Students acquire knowledge and skills for configuring WANs and remote access. Students configure protocols such as Frame Relay, Network Address Translation (NAT), and Point-to-Point Protocol (PPP). They also perform advanced techniques for IP addressing and basic communications security. This is the fourth of four courses designed to guide the student toward a CCNA (Cisco Certified Network Associate) certification. Prerequisite: Completion of CSCO 2020.

CSCO 2050 (3 cr.)
CCNP I: Advanced Router Configuration
Students acquire the knowledge and skill necessary for configuring and maintaining advanced routing protocols. Students explore advanced routing protocols, network growth issues and solutions, and security. In this course, students prepare for the first of four certification exams required to earn the Cisco Certified Networking Professional designation. Prerequisite: Completion of CSCO 2025 or CCNA certification.

CSCO 2060 (3 cr.)
CCNP II: Building Remote Access Networks
Students gain the knowledge and skills for the identification, selection, and configuration of appropriate technologies to enable users to connect to sites using remote access. Students configure such technologies as dial-on-demand routing, point-to-point protocol, network address translation, and queuing strategies. In this course, students prepare for the second of four certification exams required for the Cisco Certified Professional designation. Prerequisite: Completion of CSCO 2025 or CCNA certification.

CSCO 2070 (3 cr.)
CCNP III: Multi-Layer Switched Networks
Students acquire the knowledge and skills to install, maintain, and configure appropriate switching technologies and hardware to enable users to connect to a LAN. Students configure such technologies as the switch block, redundant links, virtual LANs (VLANs), multi-layer switching, and switch security. In this course, students prepare for the third of four certification exams required for the Cisco Certified Networking Professional designation. Prerequisite: Completion of CSCO 2025 or CCNA certification.

CSCO 2080 (3 cr.)
CCNP IV: Internetwork Troubleshooting
Students acquire the knowledge and skills to troubleshoot complex internetworks. Students utilize skills involving all aspects of networking. In this course, students prepare for the fourth of four certification exams required for the Cisco Certified Networking Professional designation. Prerequisite: Completion of CSCO 2025 or CCNA certification.

Computer Applications – Computer Security

CSEC 1500 (3 cr.)
Network Security Fundamentals
An introductory course in general security concepts. Students gain knowledge in access control technologies including MAC, DAC, and RBAC, and authentication methods including CHAP, Kerberos, Certificates, Tokens, and Passwords. Students also examine methods to counteract various security attacks including Replay, TCP/IP hijacking, social engineering, password guessing, and malicious code attacks. Prerequisite: Completion of CSCO 2000 or MSFT 2578 or instructor approval.

CSEC 1510 (3 cr.)
Network Defense Principles
Students gain knowledge and skills to identify elements of firewall design, types of security threats, and responses to security attacks, use best practices to design, implement, and monitor a network security plan; demonstrate system security skills through firewall implementation and testing; use system tools, practices, and relevant technologies to implement a security plan; evaluate practices, tools, and technologies to identify security breaches, sources of attacks, and protect mission critical systems; establish an appropriate level of security based on an analysis of security logs; and use relevant tools to secure a network. Prerequisite: Completion of CSCO 2000 or MSFT 2578 or instructor approval.

CSEC 1520 (3 cr.)
Network Attack Principles
Students gain knowledge and skills to identify tools and methods used by attackers and learn what kinds of attacks can occur and what evidence they can leave behind. Students also gain understanding of special vulnerabilities of Windows NT/2000, UNIX/Linux, and Web Servers. In addition, students examine and apply methods of keeping up with the latest security information and dissect some past attacks to analyze how they were successful and how they could have been prevented. Prerequisite: Completion of CSCO 2000 or MSFT 2578 or instructor approval.
Prerequisite: Completion of INET 1582.

Language (XHTML) including the use of pages in eXtensible HyperText Markup skills to create more advanced web pages. Students acquire knowledge and skills to identify computer investigation issues, collect evidence, evaluate network traffic, evaluate recovered remnant or residual data, and compile lessons learned for future strategies. Prerequisite: Completion of CSOC 2000 or MSFT 2578 or instructor approval.

Computer Applications – Internet Technology

INET 1550 (1 cr.)
Introduction to the Internet
Students gain and demonstrate knowledge about the worldwide network of computers and users known as the Internet. Students also acquire skills in accessing worldwide databases. Topics covered include FTP, web browsers, the World Wide Web, effective search techniques, online communications, and online security. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

INET 1581 (1 cr.)
Web Page Authoring I
Students acquire the knowledge and skills to create web pages using a simple authoring tool and the fundamentals of the eXtensible HyperText Markup Language (XHTML). Prerequisite: Completion of DVST 0520 or ENGL 0520 (or equivalent placement test scores).

INET 1582 (1 cr.)
Web Page Authoring II
Students acquire the knowledge and skills to create more advanced web pages in eXtensible HyperText Markup Language (XHTML) including the use of links, tables, image maps, and frames. Prerequisite: Completion of INET 1581.

INET 1583 (1 cr.)
Web Page Authoring III
Students acquire the knowledge and skills to create more advanced web pages in eXtensible HyperText Markup Language (XHTML) including the use of forms, style sheets, and basic scripting. Prerequisite: Completion of INET 1582.

INET 1640 (3 cr.)
Web Development Tools:
Students acquire knowledge and skills about creating web pages using current web development software. Topics include web page design, site definition, table layout, templates, CSS (Cascading Style Sheets), and applying industry standards. Prerequisite: Completion of, or concurrent enrollment in, INET 1583 or instructor approval.

INET 2020 (3 cr.)
Designing E-Commerce Web Sites
Students create e-commerce web sites. Topics include applicable design, shopping cart application, security software, site navigation, and web marketing concepts. Prerequisites: Completion of INET 1640, INET 2620, or instructor approval.

INET 2620 (3 cr.)
Designing Effective Web Sites
Students acquire knowledge and skills to create effective web sites. Topics include web site planning and design, aesthetics, GUI techniques, web standard development theories, additional web tools, popular production technologies, and utilizing scripts. Prerequisite: Completion of INET 1583 or instructor approval.

Computer Applications – Linux

LINX 2500 (4 cr.)
Linux Administration I
Students develop the knowledge and skills necessary to install and administer Linux systems. They examine the basic concepts of Linux/UNIX operating systems. Topics covered include installation, boot managers, Linux desktop, help resources, system management, file and directory structure, shells and scripting, user administration, command line administration, processes, network configurations, and Linux security basics. Upon successful completion of the course, students will be able to install, configure, and administer a Linux system. This course also provides a base from which students can study to pass the CompTIA Linux+ certification. Prerequisites: Completion of CMAP 1615 and MSFT 2578 or instructor approval.

LINX 2510 (4 cr.)
Linux Administration II
Students gain the knowledge and skills necessary to implement and administer Linux servers and related services. They explore advanced administrative concepts of Linux/UNIX server environments. Topics covered include network configurations, network services, backups and recoveries, and troubleshooting. Upon completion of the course, students should be able to install, configure, and administer a Linux server. This course provides in-depth coverage of network services including DNS, DHCP, e-mail, FTP, file, Web, and print servers. This course contributes to the knowledge base needed to help prepare students for the Linux Red Hat Engineer certification exams. Prerequisites: Completion of LINX 2500 and concurrent enrollment in COSC 1010 or instructor approval.

LINX 2600 (4 cr.)
Linux Networking
Students interested in becoming a Linux systems/network administrator or engineer gain the knowledge and skills necessary to design, build, and manage a Linux-based network infrastructure. They explore advanced Linux networking topics, including an in-depth knowledge of the Linux TCP/IP stack and IP version 6 as well as the configuration and management of IP subnetting, network interfaces, NFS, NIS, VNC, network security, and network monitoring/troubleshooting. Upon successful completion of the course, students are able to design and manage Linux-based networks. This course contributes to the knowledge base needed to help prepare students for the Linux Red Hat Engineer certification exams. Prerequisite: Completion of LINX 2510 or instructor approval.

LINX 2610 (4 cr.)
Linux Security
Students preparing to become professional Linux systems/network engineers develop the knowledge and skills necessary to design and manage secure Linux systems. Topics covered include security concepts, secure communication, infrastructure security, cryptography, defense against hackers and crackers, password security, port and service security, as well as monitoring security. In addition, they develop a working knowledge of firewalls, VPN, and packet filtering as components in a layered security environment. This course contributes to the knowledge base needed to help prepare students for the Linux Red Hat Engineer certification exams. Prerequisites: Completion of LINX 2510 and LINX 2600 or instructor approval.
LINX 2620  (4 cr.)
Linux Scripting
Students pursuing a career in system/network engineering develop the knowledge and skills necessary for designing and managing Linux-based shell scripts. Students navigate through Linux command shell and file structure as well as develop, execute, and debug Linux-based shell scripts. They evaluate various external scripting languages and utilize advanced scripting concepts and practices including scheduled and remote administrative scripts. Prerequisite: Completion of LINX 2500 and COSC 1010 or instructor approval.

LINX 2700  (4 cr.)
Linux and Windows Integration
Students interested in becoming Linux system/network engineers gain the knowledge and skills needed to design and manage the interoperation of Linux and Microsoft systems. They prepare to plan, implement, troubleshoot, and manage mixed Linux and Microsoft environments. Topics covered include Linux and Microsoft directory services, user account management, network shares and trusts, samba, and account security. Upon successful completion of the course, students are able to design and manage a mixed Linux and Microsoft network environment. This course contributes to the knowledge base needed to help prepare students for the Linux Red Hat Engineer certification exams. Prerequisites: Completion of LINX 2510, LINX 2600, and MSFT 2700, or instructor approval.

Computer Applications – Microsoft Technology

MSFT 2578  (4 cr.)
Networking Essentials
A course designed to provide students with the knowledge and skills necessary to understand the local area networking information in Microsoft courses on workstations and networking. The course serves as a general introduction for students who need a foundation in current networking technology for local area networks (LANs), wide area networks (WANS), and the Internet. Prerequisite: Completion of CMAP 1650 or instructor approval.

MSFT 2600  (4 cr.)
Implementing Microsoft Windows Desktop Environment
Students gain the knowledge and skills necessary to install, manage, and maintain professional Microsoft Windows desktop environments. They configure, manage, and maintain current Microsoft Windows operating systems; manage local accounts and configure permission to resources; and manage security, network resources, printers, and group policies. This course is intended for help desk, desktop, and systems administrators who work in a Microsoft networked environment. Prerequisite: Completion of MSFT 2578 or instructor approval.

MSFT 2700  (4 cr.)
Managing and Maintaining Microsoft Servers
Students develop the knowledge and skills necessary to install, maintain, configure, monitor, and administer Microsoft server environments. They configure and manage domain accounts, server roles, security, backups, and group policy objects. They also manage and secure network resources and distributed file systems. The course is intended for systems and network administrators who work in Microsoft environments. Prerequisite: Completion of MSFT 2600 or instructor approval.

MSFT 2710  (4 cr.)
Microsoft Active Directory
Students pursuing a career in Microsoft system and network engineering develop the knowledge and skills necessary to design, implement, and manage a Microsoft Active Directory environment. They configure, manage, and troubleshoot domain accounts, system security, group policy infrastructure, directory services and recovery as well as other needs associated with the current Microsoft Active Directory exam. Prerequisite: Completion of MSFT 2700 or instructor approval.

MSFT 2720  (4 cr.)
Microsoft Network Infrastructure
Students pursuing a career in Microsoft system and network engineering develop the knowledge and skills necessary to design, implement, and maintain a Microsoft network infrastructure. Students install and configure Microsoft servers and network infrastructure services, including DHCP, DNS, RRAS, and develop skills needed to maintain the health of the network. By completing this course, students prepare to take the current Microsoft Network Infrastructure exam. Prerequisite: Completion of MSFT 2700 or instructor approval.

MSFT 2730  (4 cr.)
Microsoft Application Servers
Students preparing to become corporate Microsoft system and network specialists develop the knowledge and skills necessary to design, implement, configure, and manage Microsoft Application Servers. They deploy file service roles, including IIS services. Web applications, terminal services, network applications, and high availability technologies. By completing this course, students prepare to take the current Microsoft Application Server exam. Prerequisite: Completion of MSFT 2700 or instructor approval.

MSFT 2800  (4 cr.)
Microsoft Virtual Servers
Students preparing to become corporate Microsoft system and network specialists develop the knowledge and skills necessary to design, implement, and manage Server Virtualization in Microsoft environments. They design, deploy, and configure virtual server environments, including Microsoft Virtual PC, Microsoft Virtual Server, Microsoft Hyper-V, Virtual Box, and VMware. Prerequisite: Completion of MSFT 2700 or instructor approval.

MSFT 22588  (4 cr.)
Project Management
Students gain a working knowledge of Microsoft and information technology projects management. Students plan and design Microsoft systems and networks through teamwork. Students develop a project plan that incorporates all aspects of project management as formatted in the Project Management Book of Knowledge (PMBOK). Students use project management tools to aid in the design and implementation of their projects. Prerequisites: Completion of MSFT 2578, MSFT 22274, or instructor’s approval.

MSFT 22810  (4 cr.)
Securing a Network
Students gain knowledge and understanding of general security concepts, communication security, infrastructure security, basics of cryptography, operational and organizational security, and securing access to local and remote users in private and public networks using industry tools. Students also gain knowledge of firewalls, VPNs, switches, routers and server security, with emphasis on network operating system security. In addition, students prepare for security certification exams. Prerequisite: Completion of MSFT 22275 or COSC 2020 or instructor approval.
MSFT 22830  (4 cr.)
Design Network Security
Students gain knowledge and skills necessary to design a secure network infrastructure, including assembling the design team, modeling threats, and analyzing security risks in order to meet business requirements for securing computers in a networked environment. Students develop decision-making skills through an interactive tool that simulates real-life scenarios that the target audience may encounter, such as collecting and sorting through the details to resolve the given security requirement. Prerequisite: Completion of MSFT 22810 or instructor approval.

Computer Science

COSC 1010  (4 cr.)
Introduction to Computer Science I
A course in algorithmic problem solving and programming using principles of top-down design and stepwise refinement. Programming exercises in a popular programming language and experimentation with software in a closed laboratory supplement the discussion. Prerequisites: Completion of DVST 0520 or ENGL 0520 and MATH 0930 (or equivalent placement test scores).

COSC 1030  (4 cr.)
Computer Science I
Students acquire algorithmic problem-solving skills applying the principles of structured programming and object-oriented design. Algorithms are implemented in a high-level, object-oriented programming language (C++). Programming exercises and experimentation with software in a closed laboratory supplement the discussion. Prerequisite: Completion of COSC 1010 or equivalent.

COSC 1200  (3 cr.)
Computer Information Systems
A course providing the level of basic computer literacy necessary to properly adapt to our automated society. It includes an introduction to computer hardware and software, business information systems, and the use of the computer to solve problems. Hands-on training with microcomputers includes electronic spreadsheets, database management, and word processing. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

COSC 2030  (4 cr.)
Computer Science II
A study of the use and implementation of abstract data structures in an object-oriented programming environment. Topics include lists, stacks, queues, tables, binary trees, graphs, space and time complexity, recursion, and recursive data types. Programming exercises and experimentation with software in a closed laboratory supplement the discussion. Prerequisite: Completion of COSC 1030.

Cooperative Work Experience
An introduction to the work-related experience. This course combines classroom study with on-site employment to provide the student a complete learning experience. The course is designed to provide the student with relevant duties and responsibilities at the training station and to prepare the student for advancement toward the student's occupational goal.

Students may earn a maximum of 10 credit hours, which would be applicable to an associate's degree or a certificate. Entering students must consult with the department prior to enrollment.

Veterans interested in these offerings should contact the veterans' counselor as these courses may not qualify for VA benefits.

Courses numbered 1480 denote academic freshman-level work.

Courses numbered 2480 denote academic sophomore-level work.

Courses numbered 1980 denote academic freshman-level work.

Courses numbered 2980 denote academic sophomore-level work.

Counseling

CNSL 2300  (3 cr.)
Counseling Skills for Helping Professionals
Students discuss and apply basic counseling and communication skills. In addition, students develop and demonstrate a command of basic skills including listening, responding, encouraging, and initiating change in interpersonal communication through mediation and conflict resolution. Prerequisite: Completion of PSYC 1000.

Criminal Justice

CRMJ 1310  (3 cr.)
Criminal Investigation I
Students examine the fundamentals of criminal investigation. This class is designed for students considering careers in law enforcement or criminal justice as well as for those already in the field. Prerequisite: Completion of CRMJ 2120 or consent of instructor.

CRMJ 1320  (3 cr.)
Criminal Investigation II
A detailed study of the crime laboratory as an integral part of criminal investigation. Topics include an overview of the historical development of forensic sciences; descriptions and applications of various scientific techniques used in the study of crimes; the collection, preservation, and recognition of evidence; and laboratory techniques. Prerequisite: Completion of CRMJ 1310 or consent of instructor. Additional Fee.

CRMJ 1510  (3 cr.)
Police Science I
A study of the role of the police and policing in American society and an examination of the pattern of relations between police and the public. Students become knowledgeable about the nature of police organizations and police work within the context of a broad social, political, and legal framework. Prerequisite: Completion of CRMJ 2120 or consent of instructor.

CRMJ 2004  (3 cr.)
Homeland Security and Law Enforcement
Students receive an introduction to terrorism using a criminological or criminal justice framework for studying terrorist groups and individuals, terrorist origins, goals, dynamics, ideologies, counterterrorism, and homeland security. Students examine the structure and dynamics of terrorism, terrorist weapons, strategies and tactics, how they evolve, the ways in which they operate, how terrorists obtain funding, their use of the media, and theories of counterterrorism. Students review definitions of terrorism, analyze specific concepts, and examine issues that arise when responding to terrorism or the threat of terrorism. Prerequisite: Completion of ENGL 0700 or ENGL 1001 or placement into ENGL 1010, or concurrently enrolled in ENGL 1010. (Cross-listed as HSEC 2004.)
CRMJ 2120 Introduction to Criminal Justice (3 cr.)
An overview course regarding the police function as it relates to the administration of justice in our complex society. For both the nonmajor and the criminal justice major. Prerequisites: Completion of DEVST 0520 or ENGL 0520 and ENGL 0700 or ENGL 1001 (or equivalent placement test scores).

CRMJ 2210 Criminal Law I (3 cr.)
An introduction to criminal law as an institution and as a formal means of social control. Criminal law is viewed from the perspective of criminal justice, law, anthropology, sociology, and psychology. For both nonmajors and majors in law enforcement, corrections and prelaw. Prerequisite: Completion of CRMJ 2120 or consent of instructor.

CRMJ 2220 Criminal Law II (3 cr.)
A course designed to introduce students to basic individual rights protected under the United States Constitution and to show how these rights come into conflict with the maintenance of public order and the enforcement of the criminal laws of the United States and individual states. Students acquire an overview of the criminal court system and the arena in which legal conflict is resolved. Topics include the law of arrest, search and seizure, confessions, pretrial identifications, the exclusionary rule, privacy, probable cause, reasonable doubt, and those rights guaranteed by the Fourth, Fifth, and Sixth Amendments. Prerequisite: Completion of CRMJ 2210 or consent of instructor.

CRMJ 2250 Police Administration (3 cr.)
Students gain a working knowledge of staff, line organization and functions, budgetary processes, records management, development and publication of policy, supervision and performance rating, process of discipline, police communications, and the legal aspects of administration. Prerequisite: Completion of CRMJ 2120 or consent of instructor.

CRMJ 2350 Introduction to Corrections (3 cr.)
A course dealing with the development and philosophy of the many attempts to change the lawbreaker. Treatment and punishment are discussed for adults and juveniles in both community and institutionally-based alternatives. For both nonmajors and majors in criminal justice. Prerequisite: Completion of CRMJ 2120 or consent of instructor.

CRMJ 2370 Correctional Institutions (3 cr.)
Students gain an understanding of the prison as an element of the criminal justice system and become knowledgeable about theories of imprisonment, the process of institutionalization, prisoners' behavior and attitudes, the convict world, and effectiveness of imprisonment. Prerequisite: Completion of CRMJ 2350 or consent of instructor.

CRMJ 2380 Probation and Parole (3 cr.)
A study of the history, philosophy, and legal authority of community correctional alternatives. Community corrections topics include probation, parole, fines, diversion, restitution, community treatment centers, work/study release centers, half-way houses, and other intermediate sanctions. Prerequisite: Completion of CRMJ 2120 or consent of instructor.

CRMJ 2390 Juvenile Justice (3 cr.)
A study of the system of justice for those under age 18. Topics include an analysis of the various models of the system, the decision to call the police, police discretion involving delinquents, juvenile court philosophy and process, prevention, and diversion from the juvenile justice system. Prerequisite: Completion of CRMJ 2120 or consent of instructor.

CRMJ 2400 Criminology (3 cr.)
An introductory overview of criminal behavior and its impact on the criminal justice system. Topics include theories of criminal behavior, examination and analysis of statistics on crime, explanations of crime causation, and the relationship between crime and the criminal justice process. Prerequisite: Completion of CRMJ 2120 or SOC 1000 or permission of the instructor. (Cross-listed as SOC 2400.)

CRMJ 2420 Juvenile Justice (3 cr.)
A study of the system of justice for those under age 18. Topics include an analysis of the various models of the system, the decision to call the police, police discretion involving delinquents, juvenile court philosophy and process, prevention, and diversion from the juvenile justice system. Prerequisite: Completion of CRMJ 2120 or consent of instructor.

CRMJ 2430 The Community and the Police (3 cr.)
Students demonstrate an understanding of the joint role of the police and the public in the study of crime. Included is a consideration of the means used to establish cooperation in the solution of police-community problems with various social, ethnic, and economic groups. Prerequisite: Completion of CRMJ 2120 or consent of instructor.

CRMJ 2590 Drugs and Criminal Justice (3 cr.)
Students have the opportunity to learn both how to use the family for personal reconstruction and career development as well as to be prepared to expand their knowledge of investigation and apprehension when arriving at the academy. Students examine the relationship between drugs/alcohol and the criminal justice practitioner focusing on the family and professional development as well as an introduction to the enforcement aspects of investigation and arrest of the offender. Prerequisite: Completion of CRMJ 2120 or consent of instructor.

Database Management Systems

DBMS 2845 Database Administration: SQL Server (4 cr.)
An intensive introduction to planning, implementing, and maintaining SQL Server relational databases. Students explore the concepts of capacity planning, backup and recovery procedures, and transaction control. Students configure and manage database clients and optimize database performance. This course is appropriate for anyone involved with database administration. Prerequisite: Completion of DBMS 2835.

Decision Science

DSCI 2210 Production and Operations Management (3 cr.)
An introductory course in production and operations management. Students gain knowledge and skills about operations strategy, quality management, facilities location, facilities layout, forecasting, inventory management, production planning, scheduling, and project management. Students apply these decision-making strategies to typical management situations. Prerequisites: Completion of MATH 2355, STAT 2010, COSC 1200 or equivalent skills.
Dental Hygiene

DHYG 1110 Dental Biology (3 cr.)
Students gain and demonstrate an understanding of dental terminology, tooth morphology, and oral structures. An introduction to microscopic anatomy and embryonic development of the oral cavity is included. Laboratory sessions include examination of natural teeth, models, skulls, and use of a microscope. Prerequisite: Acceptance into the Dental Hygiene program.

DHYG 1150 Preventive Dentistry (3 cr.)
Students examine and demonstrate an understanding of the oral disease process, healthy vs. diseased tissue, plaque control methods, and fluorides. Students evaluate patient education and motivation methods and gain practical experience in assessment of individual patient learning needs and planning teaching strategies to meet those needs. Prerequisite: Acceptance into the Dental Hygiene program.

DHYG 1200 Pharmacology (2 cr.)
Students review pharmacology with an emphasis on drugs in dentistry including the administration, indications, and contraindications. Dental emergency procedures are included. Prerequisite: Completion of DHYG 1110.

DHYG 1310 Periodontology I (1 cr.)
Students examine the anatomy, histology, and clinical features of periodontal structures in health and disease. They focus on the pathogenesis, etiology, and host response to periodontal disease. Students also explore the role of the dental hygienist in clinical periodontal assessment and enhance their assessment and documentation skills. Prerequisite: Completion of first term of the Dental Hygiene program.

DHYG 1410 Dental Hygiene Principles (6 cr.)
Students identify theory, principles, and procedures necessary for the performance of dental hygiene services. Through didactic, laboratory, pre-clinical, and service-learning experiences, they demonstrate appropriate ergonomics, infection control procedures, and professional behavior. Students also assess medical/dental histories, intra-and extra-oral structures, and hard and soft tissue deposits. In addition, they identify dental hygiene instruments and practice instrumentation, therapeutic stain removal, and fluoride application skills. Using the dental hygiene process of care model, students identify the rationale for dental hygiene intervention and develop basic dental hygiene diagnoses and treatment plans. Students also assess their skills and reflect on their progress. Prerequisite: Acceptance into the Dental Hygiene program.

DHYG 1420 Dental Hygiene Seminar I (3 cr.)
Students prepare for clinical experience in the interpretation of patient assessment data and designing dental hygiene care plans for the medically compromised, the elderly, and other segments of the population with special needs. Techniques learned in class will be practiced in DHYG 1425. Prerequisite: Completion of first term of program.

DHYG 1425 Dental Hygiene Clinic I (3 cr.)
Students demonstrate competency in basic dental hygiene interventions utilized in patient care in both clinical settings and service-learning activities. Students apply the fundamental principles of assessing, treating, and evaluating the patient’s individual needs as they develop skills using the dental hygiene process of care model. Students also assess their clinical skills, delivery of patient care, and reflect on their experiences in all settings. Prerequisite: Completion of DHYG 1410.

DHYG 2200 General and Oral Pathology (3 cr.)
Students demonstrate an understanding of the fundamentals of general pathology and disease processes. Also covered is oral pathology with an emphasis on the recognition and identification of frequently seen oral conditions. Prerequisite: Completion of DHYG 1110.

DHYG 2250 Pain Management (2.50 cr.)
Students acquire the knowledge to administer topical, noninjectionable, and local anesthetics and nitrous oxide analgesia to increase patient comfort and pain control when providing dental hygiene services. Students examine principles of pharmacology, patient management, medical considerations, and indications and contraindications for the use of local anesthetics and nitrous oxide analgesia. Students correlate theory to practice in the lab and clinical experience practicing pain management techniques using the dental hygiene process of care and the safe use of equipment and armamentarium. Prerequisite: Completion of DHYG 1200.

DHYG 2260 Dental Public Health (3 cr.)
Students identify significant social, political, psychological, and economic factors influencing the health care system and demonstrate diversity in evaluating dental health of the community. Through service-learning activities students assess, plan, and implement strategies to address community-identified need and practice research methodology and basic statistical analysis. Students write journal entries that reflect critical thinking and development of personal and civic responsibility. Prerequisite: Completion of DHYG 2330.

DHYG 2330 Periodontology II (3 cr.)
Students demonstrate knowledge of the classifications and etiology of gingival and periodontal diseases including both local and systemic factors. They explore the hygienist’s role in disease recognition, prevention, therapeutic procedures, and maintenance. Students practice assessment skills and develop recommendations for appropriate treatment of selected cases. Prerequisite: Completion of DHYG 1310.

DHYG 2400 Head, Neck, and Oral Anatomy (2 cr.)
Students gain and demonstrate an understanding of the structure and function of the head and neck. Course content includes skull osteology, sinuses, muscles, neuroanatomy, blood supply, lymphatics, glandular tissue, and oral mucous membranes. Prerequisite: Completion of DHYG 1110.
DHYG 2410 (3 cr.)
Practice Management
Students explore issues of practice management, legal and ethical aspects of practice, licensure, career planning, interpersonal communication, and current topics of interest to dentistry. Prerequisite: Acceptance into the Dental Hygiene program.

DHYG 2430 (2 cr.)
Dental Hygiene Seminar II
Students continue preparation for clinical experience through the development of advanced clinical practice skills using state-of-the-art modalities and equipment to provide dental hygiene care. Instruction includes use of power scalers and polishers, the use of area specific and supplemental hand instruments, and instrument sharpening. Techniques learned in class will be practiced in DHYG 2435. Prerequisite: Completion of first two terms of program.

DHYG 2435 (5 cr.)
Dental Hygiene Clinic II
Students demonstrate competency in more advanced clinical practice skills using state-of-the-art treatment modalities and equipment. Utilizing the dental hygiene process of care model, students apply the principles of professionalism, communication, clinical judgment, collaboration, and self-evaluation to provide individualized patient care in a variety of clinical settings and service-learning activities. In addition, students write journal entries reflecting on their experiences and relating these experiences to their professional development. Prerequisite: Completion of DHYG 2425.

DHYG 2440 (2 cr.)
Dental Hygiene Seminar III
Students explore various dental specialty practices, increase proficiency in supplemental clinical skills, and present a periodontal case study initiated in DHYG 2390. Students focus on personal assessment of competency, review the process of dental hygiene licensing, and practice national board exam skills. Prerequisite: Completion of first three terms of program.

DHYG 2445 (5 cr.)
Dental Hygiene Clinic III
Students demonstrate competency in comprehensive patient care through the integration of all required program competencies and proficiencies. Students practice evidence-based decision making in providing dental hygiene interventions and developing or modifying treatment plans. Utilizing the dental hygiene process of care model, students apply the principles of professionalism, communication, clinical judgment, collaboration, and self-evaluation to provide individualized patient care in a variety of clinical settings and service-learning activities. In addition, students write journal entries that reflect critical thinking and development of professional, personal, and civic responsibility. Prerequisite: Completion of DHYG 2435.

DHYG 2450 (3 cr.)
Dental Radiology
Students develop an understanding of X-ray exposure, processing, basic principles of X-ray generation, radiology safety, image production, and radiographic anatomy and pathology. Students also practice exposing, processing, mounting, and evaluating X-ray films in lab. Prerequisite: Acceptance into the Dental Hygiene program.

DHYG 2451 (1 cr.)
Dental Radiology Interpretation
Students develop a further understanding of the evaluation of radiographs. Students practice identifying, describing, and locating dental materials, normal anatomy, and clinically significant deviations on intraoral and extraoral radiographs. Prerequisite: Completion of DHYG 2450.

DHYG 2460 (3 cr.)
Dental Materials
Students gain and demonstrate an understanding of the composition, chemical and physical properties, manipulation, and uses of dental materials. The lab portion involves correlation of principles and cognitive aspects of dental materials through practical application of scientifically developed principles of manipulation. Prerequisite: Completion of first term of program.

Developmental Studies

DVST 0710 (2 cr.)
Vocabulary Building
A course designed to improve general vocabulary skills. Includes mastery of basic vocabulary, word parts, and other words useful in college courses.

DVST 0810 (3 cr.)
Spelling Improvement
A spelling skills course emphasizing basic words of the English language and words necessary to function in college and work situations. Typical patterns and word structures are included.

DVST 0890 (3 cr.)
Basic Skills Development
A course designed to enhance students' skills in reading, vocabulary, speaking, mathematics, and/or writing. Instruction is individualized to meet the students' needs in the basic skills areas. The students may repeat this course for a total of six credits. Placement in this course is by advisor only.

DVST 0898 (2 cr.)
Developmental Math I
This course is designed for the student who needs additional time and instruction to master basic math skills. It is the equivalent to half of MATH 0900, up to the applied areas (see MATH 0900—Pre-Algebra). Upon completion, the student will proceed to DVST 0899 to demonstrate other concepts taught in MATH 0900, beginning algebra, applied area skills, and a consumer math area of study skills. The student is scheduled for two hours of lecture and two required hours of lab weekly. After finishing DVST 0898 and DVST 0899, the student is prepared for MATH 0920—Elementary Algebra. The two semesters of DVST 0898 and 0899 are the equivalent of the one-semester course, MATH 0900. Prerequisite: Math placement score in Level A.

DVST 0899 (2 cr.)
Developmental Math II
DVST 0899 is a continuation of DVST 0898 and is comparable to the applied portion of MATH 0900 (see MATH 0900—Pre-Algebra). This course is designed for students who need additional time and instruction to master basic math skills. Students gain and demonstrate knowledge in measurement systems, consumer math, and basic geometry and algebra. Prerequisite: Completion of DVST 0898.
Diagnostic Medical Sonography

IMAG 2205 (3 cr.)
Introduction to Diagnostic Medical Sonography
Students learn about the field of Diagnostic Medical Sonography. Students explore the duties and functions of the diagnostic medical sonographer as well as the historical background and context of the sonographer as a member of the health care team. Students examine the other imaging modalities as they relate to sonography. Prerequisite: Admission to the Diagnostic Medical Sonography program. Corequisite: IMAG 2210. Additional Fee.

IMAG 2210 (2 cr.)
Ultrasound Physics I
Students are introduced to physics and instrumentation relevant to diagnostic medical sonography. Students explore the components of the ultrasound machine system, sound beam properties, sound propagation in tissue and ultrasound transducers. Prerequisite: Acceptance into the Diagnostic Medical Sonography program. Corequisite: IMAG 2205. Additional Fee.

IMAG 2212 (3 cr.)
Cross-Sectional Anatomy
Students identify internal structures including organs and vasculature important to the objectives of Diagnostic Medical Sonography (DMS). Students develop cross-sectional, anatomic recognition skills and skill in correlating images from other imaging modalities. Prerequisites: Acceptance into the Diagnostic Medical Sonography program, completion of DVST 0520 or ENGL 0520, ENGL 0700 or ENGL 1001, and MATH 0930 (or equivalent placement test scores). Additional Fee.

IMAG 2215 (4 cr.)
Abdominal Sonography I
Students set up for the abdominal ultrasound examination and perform ultrasounds of the abdominal organs including liver, gallbladder, and biliary tree. Emphasis is placed on recognizing the normal echo-texture of anatomy and pathology of the abdominal organs. Practice scan sessions are included. Prerequisites: Completion of IMAG 2205, IMAG 2210, and IMAG 2212. Additional Fee.

IMAG 2220 (3 cr.)
OB/GYN Sonography I
Students perform ultrasounds of the nongravid uterus and the first trimester pregnancy. They explore the anatomy, physiology, and pathology of the female reproductive system as well as intrauterine and ectopic pregnancies. Corequisites: IMAG 2205 and IMAG 2210. Additional Fee.

IMAG 2240 (2 cr.)
Ultrasound Physics II
Students build on skills learned in IMAG 2210. Students demonstrate competency in general Doppler, color Doppler, and spectral Doppler principles, quality assurance and quality control principles, and sonographic safety as they relate to bioeffects. Students explore image production and display, storage of the ultrasound image, and sonographic artifacts. Students investigate new frontiers in ultrasound principles, and demonstrate competency in transducer selection, usage, setting scanning parameters, and interactive properties of ultrasound. Prerequisite: Completion of IMAG 2210. Additional Fee.

IMAG 2245 (3 cr.)
Abdominal Sonography II/Small Parts
Students build on skills learned in IMAG 2215. Students perform ultrasounds of the abdominal organs including the pancreas, kidneys, urinary bladder, spleen, and the retroperitoneum. Emphasis is placed on performing the entire abdominal ultrasound in sequence and recognizing the anatomy and pathology of the abdominal organs. Students also investigate superficial structure imaging and integrate clinical and diagnostic procedures such as thyroid, breast, male reproductive system, and superficial structures common and specific to each organ. Practice scan sessions are included. Prerequisite: Completion of IMAG 2215. Additional Fee.

IMAG 2250 (3 cr.)
OB/GYN Sonography II
Students perform ultrasounds of the second and third trimester pregnancy. They explore the anatomy, physiology, and pathology of the female pelvis and the developing fetus. Students will be exposed to interventional procedures related to pregnancy. Prerequisite: Completion of IMAG 2220. Additional Fee.

IMAG 2252 (3 cr.)
Introduction to Vascular Sonography
Students are introduced to the uses of vascular sonography. Students explore the differences from the general concentration of ultrasound. Learners outline the components of vascular exams and learn to compare and contrast results with other diagnostic procedures. Prerequisites: Completion of IMAG 2245, IMAG 2250, and IMAG 2230. Additional Fee.

IMAG 2254 (6 cr.)
DMS Beginning Clinical Experience
This course is a beginning supervised clinical experience in an ultrasound imaging department. Students observe, perform, and correlate theory to practice on examinations of the abdomen, gravid and nongravid pelvis, and small parts. Students demonstrate knowledge of anatomic structures by correctly operating the sonography equipment. Students identify pathological processes of disease and normal anatomic variants. Participation in this course takes place at a hospital or clinic.

IMAG 2255 (11 cr.)
Sonography Clinical Experience I
This is a supervised clinical experience in an ultrasound imaging department. Students perform and correlate theory to practice on examinations of the abdomen, gravid and nongravid pelvis, and small parts. Students demonstrate the requested anatomic structures by correctly operating the sonography equipment. Students identify pathological processes of disease and normal anatomic variants. Participation in this course will take place at a hospital or clinic. Prerequisite: Completion of IMAG 2245. Additional Fee.

IMAG 2260 (13 cr.)
Sonography Clinical Experience II
Students continue the clinical experience in an ultrasound imaging department. Students enhance their scanning and employee skills through clinical practice. Students apply and relate theory by scanning independently of the sonographer (with minimal supervision) on studies of the abdomen, gravid and nongravid pelvis, and small parts examinations. Prerequisite: Completion of IMAG 2255. Additional Fee.
**IMAG 2265** (1 cr.)
**Registry Review I**
Students participate in a comprehensive review of abdominal and OB/GYN course content in preparation for the certifying examination of the American Registry of Diagnostic Medical Sonographers. Prerequisite: Successful completion of program courses or approval of instructor. Additional Fee.

**IMAG 2270** (1 cr.)
**Registry Review II**
This is a continuation of IMAG 2265. Students participate in a comprehensive review of second and third trimester OB and superficial structures in preparation of the certifying examination of the American Registry of Diagnostic Medical Sonographers. Prerequisite: Completion of IMAG 2265. Additional Fee.

## Diesel Technology

**DESL 1500** (3 cr.)
**Introduction to Diesel Technology**
An introductory course in diesel technology. Students develop knowledge of basic procedures used in diesel technology. Students gain skill in and knowledge of shop safety, tools and equipment, engine oil, diesel fuel, and engine performance technology.

**DESL 1520** (3 cr.)
**Starting and Charging Systems**
Students learn the theories of starting and charging systems. Starters and alternators will be disassembled, tested and reassembled, and then bench tested for operation. Following successful completion of this phase, students demonstrate the diagnosis and repair of complete systems on live vehicles. Additional Fee.

**DESL 1540** (4 cr.)
**Diesel Electrical**
This course introduces students to fundamental electrical theories that relate to diesel engines. Students acquire knowledge about and develop skills in reading and interpreting wiring diagrams and diagnosing and repairing individual electrical systems, which consist of batteries, starting and charging mechanisms, instruments, lights, horns, electric windows, power seats, electric defrosters, and other electrical components. Additional Fee.

**DESL 1570** (4 cr.)
**Automatic Transmissions**
This course covers the theory of automatic transmissions. Students gain practical experience in the overhaul of automatic transmissions in popular use today. Proper use of hand tools and specialized equipment and safety in the lab will be emphasized. Additional Fee.

**DESL 1610** (5 cr.)
**Engine Rebuilding I**
Students learn diesel engine theory and design. Students perform disassembly, diagnosis, reassembly, and operation procedures. Students demonstrate skills in measuring, evaluating, and rebuilding engine parts to OEM specifications. Additional Fee.

**DESL 1630** (2 cr.)
**Diesel Engines Diagnosis and Tune-up**
Students learn to properly diagnose diesel engine problems. The student gains practical experience in using test equipment and correcting the diesel engine problems. Additional Fee.

**DESL 1650** (4 cr.)
**Diesel Fuel Systems and Tuning I**
This course will cover diesel fuel systems theory. The student learns to remove, recondition, test, install, and time various diesel engine injectors and injector pumps. Additional Fee.

**DESL 1700** (3 cr.)
**Diesel Transmission Theory and Rebuild**
Using a new Automatic Transmission Electronic Control (ATEC), students learn the theory and design of transmissions used in heavy truck and off-road equipment. Students diagnose transmission problems and participate in the disassembly and assembly of various transmissions. Additional Fee.

**DESL 1755** (4 cr.)
**Heating, Air Conditioning and Refrigeration**
This course introduces students to basic principles that govern heating, air conditioning, and refrigeration used in diesel vehicles. Students acquire knowledge about and develop skills in the diagnosis and repair of heating, air conditioning, and refrigeration systems in accordance with manufacturers’ specifications. Additional Fee.

**DESL 1790** (2 cr.)
**Diesel Shielded Metal Arc Welding**
In this introduction to arc welding, students acquire and demonstrate knowledge and skills in use of stick MIG welders in a shop setting. This course is designed for students in the diesel program. Projects, lecture, and demonstration will be related to the diesel profession. Emphasis is placed on safe practice. Additional Fee.

**DESL 1850** (3 cr.)
**Diesel Hydraulic Fundamentals**
The student learns the principles, functions, and design of fluid power. The student repairs and troubleshoots hydraulic and pneumatic systems. Included are hydraulic and pneumatic valves, oils, gauges, filters, hoses, and other components. Additional Fee.

**DESL 2860** (1 cr.)
**Bus Technology: Electrical and Electronic Systems**
An advanced course in school bus maintenance. Students increase their knowledge of and develop advanced skills in circuits, electrical components, electrical troubleshooting, and microprocessors. Prerequisite: Employed by a transportation company or enrolled in Diesel Technology program or equivalent and permission of instructor. Additional Fee.

**DESL 2862** (1 cr.)
**Bus Technology: Charging, Starting, and Lighting Systems**
An advanced course in school bus maintenance. Students increase their knowledge of and develop advanced skills in battery maintenance, testing, and charging, starting, lighting, and charging systems; instrument panels and gauges; and alarm systems. Prerequisite: Employed by a transportation company or enrolled in the Diesel Technology program or equivalent and permission of instructor. Additional Fee.

**DESL 2864** (1 cr.)
**Bus Technology: Power Train**
An advanced course in school bus maintenance. Students increase their knowledge of and develop advanced skills in clutch function, troubleshooting clutches, main and auxiliary gearing, countershaft transmissions, transfer cases, power takeoff unit, simple planetary gear sets, transmission hydraulic systems, and air-actuated systems. Prerequisite: Employed by a transportation company or enrolled in the Diesel Technology program or equivalent and permission of instructor. Additional Fee.
DESL 2866
Bus Technology: Steering and Suspension Systems
An advanced course in school bus maintenance. Students increase their knowledge of and develop advanced skills in steering systems components, front-end alignment, power steering system high-performance truck steering, suspensions such as spring-type, equalizing beam, torsion bar, and air bag. Prerequisite: Employed by a transportation company or enrolled in the Diesel Technology program or equivalent and permission of instructor. Additional Fee.

DESL 2868
Bus Technology: Brake Systems
An advanced course in school bus maintenance. Students increase their knowledge of and develop advanced skills in brake types, brake system balance, types of hydraulic brakes, antilock brake systems, ABS configurations, maintenance and safety, and air brake system diagnostics and servicing. Prerequisite: Employed by a transportation company or enrolled in the Diesel Technology program or equivalent and permission of instructor. Additional Fee.

DESL 2950
Air Brake Systems
A course designed to provide students with the skills necessary to physically apply the principles of air brake system layouts. The successful student will be able to identify, assemble, adjust and repair automobile slack adjusters, Eaton, Bendix, Rockwell, S-CAM, and Wedge brake and disc brake systems. The course includes troubleshooting and commercial vehicle brake safety checking. Additional Fee.

DESL 2955
Automotive Diesel
A course where students acquire knowledge about general diesel engine diagnosis, fuel and exhaust systems diagnosis and repair, and intake manifold heat control systems. Additional Fee.

Economics

ECON 1000
Survey of Economics
A survey of basic economic principles in a free enterprise society including contemporary economic policies, problems, and issues. For students in terminal programs and those seeking a basic orientation in the broad field of economics. Prerequisites: Completion of DVST 0510 or ENGL 0901 and MATH 0920 or concurrent enrollment (or equivalent placement test scores).

ECON 1010
Principles of Macroeconomics
An introduction to contemporary economic principles and their theoretical foundations. The functioning of the American economy is examined with emphasis on supply and demand analysis, aggregate income determination, and fiscal and monetary policy. The contemporary issues of inflation, recession, unemployment, and economic growth are considered. Prerequisites: Completion of DVST 0520 or ENGL 0520, ENGL 0700 or ENGL 1001, and MATH 0920 (or equivalent placement test scores) (Cross-listed as AGEC 1010)

ECON 1020
Principles of Microeconomics
A continuation of ECON 1010. A theoretical analysis of competitive and imperfectly competitive markets. Antitrust policy and the regulation of industry are reviewed. Theories of income distribution and alterations to patterns of income distribution are also presented. Prerequisite: Completion of DVST 0520 or ENGL 0520, ENGL 0700 or ENGL 1001, and MATH 0920 (or equivalent placement test scores) (Cross-listed as AGEC 1020)

ECON 1200
Economics, Law, and Government
Students acquire and demonstrate knowledge about how markets and free enterprise depend on supportive legal and political institutions. Students investigate and describe the influence of these governmental and legal institutions on markets and individual economic decisions. Topics to be covered include economic systems and economic reasoning, government fiscal actions and public policies, the economics of crime, pollution and poverty, relationships among market development, our legal framework and the U.S. political systems, and the constitutions of the U.S. and state of Wyoming. Prerequisites: Completion of MATH 0920, ENGL 0700 or ENGL 1001 (or equivalent placement test scores) or instructor approval.

ECON 2100
Introduction to Money and Banking
A presentation of topics in theoretical monetary economics and government finance. Students make extensive use of abstractions, theoretical models, and quantitative analysis techniques relative to the topics presented. Prerequisites: Completion of ECON 1020 and FIN 2100.

Education

EDCI 2440
Classroom Management: Strategies for Success
This course involves the study of classroom management including terminology, assessment, parent and staff communication, student behavior, and related areas. Students review various management programs. Successful students acquire skill in effective management and develop techniques to promote a positive and constructive classroom climate.

EDCI 2490
Topics in Early Childhood Education
Students investigate and gain knowledge and skills in a variety of topics related to early childhood education and relevant to working with young children, birth through age eight. A developmental approach to such topics as classroom management, guidance and discipline, curriculum, administration, and methods and materials is utilized. Students may repeat this course and receive credit for each different topic. (articulated course)
Education – Early Childhood

EDEC 1020 (3 cr.)
Introduction to Early Childhood Education
This course is designed to introduce the student to the field of early childhood education, preschool through third grade. The student is exposed to a variety of educational programs currently in operation in the community through observations in child care facilities and in the public schools. Emphasis is placed on evaluating early childhood education as a career. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

EDEC 1025 (3 cr.)
Teaching Science in Early Childhood/Lab
Students collect, describe, and interpret evidence of young children’s emerging understanding of science. In addition, students develop science activities for an early childhood program. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

EDEC 1030 (3 cr.)
Infant and Toddler Care/Lab
Students focus on developmental stages of children from conception to three years of age. Students examine the major areas of prenatal development, physical, social-emotional, and cognitive growth, developmentally and culturally appropriate environments, family partnerships, and the caregiver’s role. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

EDEC 1100 (3 cr.)
Observation and Guidance of Young Children/Lab
Students actively participate in the design, implementation, and evaluation of educational programs currently in operation in early childhood centers, including fiscal management, selection, development, and motivation of staff, parent and community involvement, and program regulations and evaluations. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

EDEC 1200 (3 cr.)
Administration in Early Childhood Programs
Successful students acquire knowledge and develop skills related to the business and human relations components of administering centers for young children. Students examine procedures in establishing early childhood centers, including fiscal management, selection, development, and motivation of staff, parent and community involvement, and program regulations and evaluations. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

EDEC 1300 (3 cr.)
Curriculum Planning and Review for Young Children
Students develop skills in planning, implementing, and evaluating developmentally appropriate experiences to encourage intellectual, physical, social, emotional, and creative growth in young children with the focus on the whole child. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

EDEC 1482 (1 cr.)
Skill for the Child Development Associate (CDA)
This is an initial course designed for students seeking the Child Development Associate (CDA). Students demonstrate an understanding of the CDA competency goals. Successful students complete their initial portfolio and complete their CDA application.

EDEC 1484 (1 cr.)
Skill for the Completion of the Child Development Associate (CDA)
This is the second part of a two-class sequence designed to meet the content requirement for the CDA credential. Students demonstrate the academic requirements necessary for the CDA. The assessment instrument from the Council for Professional Recognition will be utilized. Students make their own arrangements for a CDA-qualified advisor to complete the Assessment Observation Instrument if they are working in an early childhood program outside of Laramie or Albany Counties in Wyoming.

EDEC 2200 (3-5 cr.)
Early Childhood Practicum
Students actively participate in the care and education of young children in an early childhood setting. Students plan lessons, design developmentally appropriate activities, and demonstrate classroom management skills. Students focus on current issues and trends in the field of early childhood education. Prerequisites: Successful completion of EDEC 1020 and completion of, or concurrent enrollment in, EDEC 1100 or permission of instructor. Students seeking a Child Development Associate (CDA) should enroll for five credits.

Education – Educational Foundations

EDFD 1010 (2 cr.)
Introduction to Teaching
The preservice teacher explores the teaching profession while developing skills for a successful college experience. Students become knowledgeable about course choices for transfer to four-year institutions and requirements for building a professional portfolio and teaching certification. Students observe at elementary and secondary schools. Prerequisites: Successful completion of DVST 0510 or ENGL 0510 and ENGL 0700 or ENGL 1001 (or equivalent placement test scores) or placement into ENGL 1010.

EDFD 2020 (3 cr.)
Foundations of Education
Students examine and become knowledgeable about the historical, sociological, and philosophical foundations of the present American educational system. Students discuss current, significant educational issues. Prerequisites: Successful completion (grade of C or better) of ENGL 1010 and EDFD 1010, GPA of 2.5 or better, and successful completion of, or concurrent enrollment in, EDST 2450.

EDFD 2100 (3 cr.)
Educational Psychology
This is a course designed for preservice teachers. Students demonstrate skills in applying principles, techniques, and other resources of educational psychology to the challenges that teachers face in the classroom. Prerequisites: Completion of EDST 2450 and ENGL 1010, both with a minimum grade of C, and a GPA of 2.5 or better.
EDFD 2330  (2 cr.)  
Child Abuse and Neglect  
An examination of the tragic problem of child abuse. Students learn and demonstrate introductory knowledge of the nature, extent, and causes of child abuse, the types, indicators, symptoms, and effects of child abuse; the school's role in identification and investigation; reporting laws; therapeutic and medical programs/services; and the legal perspective and system. Presentations are conducted by professionals with special expertise about the child abuse problem. (S/U grade only)  

Education –  
Educational Studies

EDST 2450  (3 cr.)  
Human Life Span Development  
Students achieve a multidisciplinary and holistic overview of human development from conception through late adulthood and death and dying. Students analyze how and why people function as they do. Students examine the biosocial, cognitive, and psychosocial development through the lifespan and relate how goals, interests, and roles change over time. Prerequisite: Completion of ENGL 1010 with a grade of C or better.  

Education –  
Elementary Education

EDEL 1410  (1 cr.)  
Seminar in Theory of Arithmetic I  
This course parallels the content of MATH 1100. Students experience exploratory and hands-on learning of the topics from MATH 1100 so that they can model this method of learning in their future classrooms. Students must be concurrently enrolled in MATH 1100.  

EDEL 1430  (1 cr.)  
Seminar in Life Science  
This course focuses on the teaching strategies, materials, and activities appropriate for the elementary school setting that are related to the materials and content encountered in BIOL 1000, BIOL 1010, or BIOL 1020 (U W). Students should be concurrently enrolled in a content biology course. Prerequisites: Completion of DVST 0510 or ENGL 0510, DVST 0630 or ENGL 0630, and DVST 0900 or MATH 0900 (or equivalent placement test scores).  

EDEL 1440  (1 cr.)  
Physical Science in the Elementary School  
A selection of basic physical science concepts, materials, and curricula appropriate for elementary schools. The preservice elementary education teacher develops knowledge of the fundamental concepts of physical science and inquiry skills. In addition, the preservice elementary education teacher develops positive attitudes toward teaching science. This course parallels the content of the University of Wyoming's CHEM/PHYS 1090 or any LCCC physical science course and should be taken concurrently. Prerequisite: Successful completion of ENGL 1010 with a grade of “C” or higher.  

EDEL 1450  (1 cr.)  
Earth Science in the Elementary School  
Preservice teachers gain knowledge about basic earth science concepts and activities that address these topics at an elementary level. This course parallels the content of the University of Wyoming's ASTR/GEOL 1070 or any LCCC earth sciences course and should be taken during the same semester.  

EDEL 2410  (1 cr.)  
Elementary School Mathematics Seminar II  
This course parallels the content of MATH 2120. Students experience exploratory and hands-on learning of the topics from MATH 2120 so that they can model this method of learning in their future classrooms. Students must be concurrently enrolled in MATH 2120.  

EDEX 1060  (2 cr.)  
Introduction to Gifted and Talented Education  
This course is designed to give the student an overview of some of the many aspects of educating the gifted and talented students. Students demonstrate an understanding of the historical background, definitions, identification processes, characteristics, and leading theories. Students make practical application of knowledge to a classroom setting. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score). (S/U grade only)  

EDEX 2484  (3 cr.)  
Introduction to Special Education  
Students explore effective intervention models of instruction and/or behavior techniques for special needs students within an inclusion setting and/or other continuum of special education options which meet the least restrictive environment. Students develop knowledge and understanding in the concept of direct instruction, the collaboration model, laws and legislation, definitions of the range of exceptionalities, incidence, and etiology. This course requires five hours of observation at assigned special education settings. Prerequisites: Completion (grade of C or better) of EDFD 1010.  

Education –  
Instructional Technology

ITEC 2360  (3 cr.)  
Teaching With Technology  
This introductory course emphasizes effective use of technology for communication, support tools, and instruction. Students explore a variety of technologies and resources including the computer, Internet, and multimedia. Students design and develop technology-enriched learning activities and assessments and exhibit digital responsibility. This course is designed for pre-service teachers.  

ITEC 2365  (1 cr.)  
Teaching and Learning Online  
This course is designed for instructors who are interested in online teaching and learning practices. Learners develop and design course experiences for teaching and learning at a distance. They examine online course design, implementing best practices, designing and implementing learning communities, and familiarization with LCCC online procedures, strategies for managing learning online, uses of technologies including LCCC's course management system, and methods for evaluating course quality. (S/U grade only)
### Emergency Medical Services—Paramedics

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<tr>
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<tr>
<td>EMGT 2500</td>
<td>Paramedic Preparatory</td>
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<td>EMGT 2510</td>
<td>Paramedic Airway and Ventilation</td>
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<td>EMGT 2520</td>
<td>Paramedic Patient/Management Assessment</td>
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<td>EMGT 2530</td>
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<td>EMGT 2540</td>
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<td>EMGT 2550</td>
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<td>EMGT 2560</td>
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<td>EMGT 2580</td>
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<td>EMGT 2590</td>
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<tr>
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<tr>
<td>EMGT 2620</td>
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**EMGT 2500 Paramedic Preparatory**  
A study in the basic concepts that prepare an EMT I for national paramedic certification. Students gain knowledge and skills in EMS systems and their roles and responsibilities, the well-being of a paramedic, illness/injury prevention, medical/legal issues, ethics, principles of pathophysiology, pharmacology, venous access and medication administration. Prerequisites: Completion of or concurrent enrollment in ENGL 1010 and completion of MATH 0920 (or equivalent placement test score). Instructor consent required.

**EMGT 2510 Paramedic Airway and Ventilation**  
A study in the airway and ventilation concepts that prepare an EMT I for national paramedic certification. Students gain knowledge and skills in the mechanics of respiration, the exchange and transport of gases in the body, factors that influence blood oxygenation, regulation, airway obstruction, aspiration, airway evaluation, oxygen therapy, airway management, advanced airway procedures, and pharmacological adjuncts to airway management and ventilation. Prerequisites: Completion of or concurrent enrollment in ENGL 1010 and completion of MATH 0920 (or equivalent placement test score). Instructor consent required.

**EMGT 2520 Paramedic Patient/Management Assessment**  
A study in the assessment concepts that prepare an EMT I for national paramedic certification. Students gain knowledge and skills in history taking, techniques of physical examination, patient assessment, clinical decision making, communications, documentation, and assessment-based management. Prerequisites: Completion of or concurrent enrollment in ENGL 1010 and completion of MATH 0920 (or equivalent placement test score). Instructor consent required.

**EMGT 2530 Paramedic Trauma**  
A study in the trauma concepts that prepare an EMT I for national paramedic certification. Students gain knowledge and skills in trauma system/MOI, hemorrhage and shock, soft tissue trauma, burns, head and face trauma, spinal trauma, thoracic trauma, abdominal trauma, and musculoskeletal trauma. Prerequisites: Completion of or concurrent enrollment in ENGL 1010 and completion of MATH 0920 (or equivalent placement test score). Instructor consent required.

**EMGT 2540 Paramedic Medical**  
A study in the medical concepts that prepare an EMT I for national paramedic certification. Students gain knowledge and skills in pulmonary, neurology, endocrinology, allergies and anaphylaxis, gastroenterology, urology, toxicology, environmental conditions, infectious and communicable disease, behavioral/psychiatric, gynecology, hematology, and obstetrics. Prerequisites: Completion of or concurrent enrollment in ENGL 1010 and completion of MATH 0920 (or equivalent placement test score). Instructor consent required.

**EMGT 2550 Paramedic Cardiology**  
A study in the cardiology concepts that prepare an EMT I for national paramedic certification. Students gain knowledge and skills in sinus mechanisms, various rhythms, electrical therapy, countershock, transcutaneous pacing, defibrillators, AV blocks, cardiovascular diseases, pacemakers, 12-lead, patient assessment, and life support. Prerequisites: Completion of or concurrent enrollment in ENGL 1010 and completion of MATH 0920 (or equivalent placement test score). Instructor consent required.

**EMGT 2560 Paramedic Special Considerations**  
A study in the special consideration concepts that prepare an EMT I for national paramedic certification. Students gain knowledge and skills in neonatology, pediatrics, geriatrics, abuse and assault, patients with special challenges, and acute interventions for chronic-care patients. Prerequisites: Completion of or concurrent enrollment in ENGL 1010 and completion of MATH 0920 (or equivalent placement test score). Instructor consent required.

**EMGT 2580 Paramedic Operations**  
A study in the operations concepts that prepare an EMT I for national paramedic certification. Students gain knowledge and skills in medical incident command, rescue AGO, HazMat incidents, and crime scene awareness. Prerequisites: Completion of or concurrent enrollment in ENGL 1010 and completion of MATH 0920 (or equivalent placement test scores). Instructor consent required.

**EMGT 2590 Paramedic Human Systems and Immunization**  
A study in the human systems/immunization concepts that prepare an EMT I for national paramedic certification. Students gain knowledge and skills in anatomy, physiology, and immunization. Prerequisites: Completion of or concurrent enrollment in ENGL 1010 and completion of MATH 0920 (or equivalent placement test score). Instructor consent required.

**EMGT 2600 Paramedic Clinical**  
This course is a hands-on clinical experience that prepares an EMT I for national paramedic certification. Students gain knowledge and skills in ED triage, emergency department, pediatrics, emergency department, burn center, neuro/trauma ICU, CCU, pediatric ICU, labor and delivery, and nursery. Prerequisites: Completion of or concurrent enrollment in ENGL 1010 and completion of MATH 0920 (or equivalent placement test score). Instructor consent required.

**EMGT 2620 Paramedic Vehicular I**  
This course is a hands-on vehicular/clinical experience that prepares an EMT I for national paramedic certification. Students gain knowledge and skills in chest pain, respiratory distress, abdominal complaints, altered mental status, behavioral issues, obstetrics, trauma, pediatric and adult assessments, venous access, medication administration, ventilation and other additional skills. Prerequisites: Completion of or concurrent enrollment in ENGL 1010 and completion of MATH 0920 (or equivalent placement test score). Instructor consent required.
Emergency Medical Technology

EMT 1500 (6 cr.)
Emergency Medical Technician Basic (EMT-B)
Students prepare to identify medical and trauma emergencies and are able to provide appropriate interventions in this entry-level course. Successful students are able to work in the field of prehospital emergency medicine as paid or volunteer providers after the completion of this course and after passing the state certification exam. Prerequisites: AHA Healthcare Provider CPR (or equivalent) and proof of required immunizations. Basic Emergency Care (BEC) certificate is helpful. Instructor consent required.

Employment Orientation
A student may enroll in employment orientation for one credit hour. Students are exposed to current employment market information and techniques for gaining employment in their specific areas through résumé writing, letters of application, employment applications, and interviews.

Engineering Science

ES 1060 (3 cr.)
Introduction to Engineering Computing
A course introducing students to the use of computers for solving engineering problems. Students learn problem-solving techniques and the graphical representation of data utilizing various software including a spreadsheet and an equation solver. Use of a word processor and presentation software for report writing and technical presentations also is emphasized. Prior knowledge of computers is not necessary. Prerequisites: Completion of DVST 0510 or ENGL 0510, DVST 0630 or ENGL 0630, and MATH 1405 (or equivalent placement test scores).

ES 2110 (3 cr.)
Statics
An introductory course describing the interaction of particles and rigid bodies to a system of applied forces. Students learn to mathematically model structures with free body force diagrams and vector analysis, apply equilibrium conditions, and recognize real life restrictions. Prerequisite: Completion of or concurrent enrollment in MATH 2200.

ES 2120 (3 cr.)
Dynamics
A course involving a complete study of the motion of particles and rigid bodies. Students learn to recognize imbalanced forces on bodies and acquire the ability to do vector analysis to fully describe the resulting motion, develop various techniques switching from one type of coordinate system to another, recognize the differences between kinetics of particles and kinematics; and develop a total dynamic analysis for particles as well as rigid bodies. Prerequisites: Completion of ES 2110, MATH 2205, and PHYS 1310.

ES 2210 (4 cr.)
Electric Circuit Analysis
A study of electric circuits and their theoretical base. Students acquire knowledge about electric circuit theory including network theorems, dependent sources, first and second order circuits, and phasor analysis of AC circuits. Accompanying laboratory will reinforce electric circuit principles and introduce digital and analog electronic circuits. Prerequisite: Completion of MATH 2205. Additional Fee.

ES 2310 (3 cr.)
Thermodynamics I
A study of the thermodynamics of macroscopic systems. Students acquire knowledge about energy and its various forms, real and ideal gases, reversible and irreversible processes, and state variables and state equations, and they apply the first and second laws of thermodynamics to perform complete thermodynamic analysis of heat engines and refrigeration systems. Not offered every year. Prerequisites: MATH 2210 or concurrent enrollment, CHEM 1020, and PHYS 1310.

ES 2330 (3 cr.)
Fluid Dynamics
A course covering the incompressible flow of real and ideal fluids. Students acquire knowledge about methods of solution for essential concepts such as potential and stream functions and gain the ability to analyze real fluid flow problems including flow in open channels, pipes, pipe networks, porous material, waves on fluid surfaces, buoyancy and stability of floating and submerged objects, and the operation of fluid machinery. Not offered every year. Prerequisites: Completion of ES 2120 and MATH 2210 or concurrent enrollment.

ES 2410 (3 cr.)
Mechanics of Materials
A study of stresses inside deformable bodies. Students apply the forces and analysis and equilibrium techniques studied in Statics and apply them to deformable bodies to solve for the maximum stress. Mohr’s circle also will be applied to find maximum stress in order to perform stress analysis in the design of real structures. Prerequisite: Completion of ES 2110.

Engineering Technology

ENTK 1080 (4 cr.)
Principles of Technology
Students develop necessary skills and knowledge in the principles of technology as applied to the scientific concepts and laws of force, work, rate, resistance, energy, and power. Students gain an understanding and working knowledge of these principles through practical application experiences. The course is specifically designed for students, both science and nonscience majors, who plan to pursue careers as technicians. Prerequisites: Completion of DVST 0510 or ENGL 0510 and MATH 1000 or higher (or equivalent placement test scores). (Cross-listed as PHYS 1080.) Additional Fee.

ENTK 1501 (3 cr.)
Introduction to Engineering Technology
An introductory course for engineering technology majors. Students develop knowledge about basic concepts and graphic fundamentals of engineering design. In addition, students develop skills in the use of instruments and technologies for engineering design graphics as well as software utilized in various disciplines of engineering.
ENTK 1510
Drafting I
A course where students develop basic manual drafting skills in lettering, single-view drawings, geometric construction, multiview projection, and working drawings. Intended for students with no previous drafting experience. Prerequisite: Completion of MATH 0930 (or equivalent placement test score). Additional Fee.

ENTK 1520
Drafting II
The second course in a two-semester sequence where students develop drafting skills in auxiliaries, sections, obliques, isometrics, and descriptive geometry. Prerequisites: Completion of ENTK 1510 and MATH 0930 (or equivalent placement test score). Additional Fee.

ENTK 1560
Freehand Sketching
Students acquire and demonstrate pictorial drafting skills in oblique, isometric, and perspective and learn and use basic techniques in technical illustration. Prerequisite: Completion of ENTK 1510. Additional Fee.

ENTK 1570
Inking for Drafters
A course where students acquire and demonstrate manual inking skills on polyester film utilizing technical ink pens and mechanical lettering devices. Prerequisite: Completion of ENTK 1520. Additional Fee.

ENTK 1580
Cartography I
An introductory course on the basic principles of map projections and map preparation. Students acquire knowledge about terrestrial and space map projections currently used and gain an understanding about the concepts of map drafting, preparation, and publication. Prerequisite: Completion of ENTK 1510.

ENTK 1610
Designing and Sizing Mechanical and Electrical Systems
This course provides entry-level skills in designing and sizing mechanical and electrical systems for small commercial and residential buildings. Drafters, architectural aides, and other technicians utilize these skills. Prerequisite: Completion of ENTK 1520.

ENTK 1710
Architectural Drafting I
A course where students develop basic architectural skills while completing a required project that includes elevations, sections, floor plan, and details. Reference materials help students gain an understanding of codes, materials, structures, architectural aids, and standards. Prerequisite: Completion of either ENTK 1510 or ENTK 2500. Additional Fee.

ENTK 1720
Architectural Drafting II
A course where students produce a complete set of architectural documents through a student-developed design. Emphasis is placed on space, form, materials, structural system, and architectural standards. Students will complete this course utilizing AutoCAD. Prerequisite: Completion of ENTK 1710. Additional Fee.

ENTK 1770
Structural Drafting
A course in the preparation of design and working drawings for structures such as bridges and buildings using wood, steel, and concrete. Prerequisite: Completion of ENTK 1520.

ENTK 1800
Computer-Aided Drafting I
This course is an introduction to the basic techniques of complex objects, basic manufacturing drawings, making modifications to existing drawings, and performing basic paper output through printing techniques. Students practice construction techniques of basic objects and perform proper drafting etiquette while gaining experience in geometric problem-solving analysis. Prerequisites: Completion of ENTK 2505 and DVST 0510 or ENGL 0510 (or equivalent placement test score).

ENTK 2070
Engineering Surveying
An introductory course on ordinary field surveying. Students acquire skills in the practical aspects of the field survey operations of measuring distances, angles, differences in elevation, and in the care and maintenance of surveying equipment. The final project will be to collect survey data for a topographic map. Prerequisite: Completion of ENTK 1510. (Cross-listed as CE 2070.) Additional Fee.

ENTK 2500
Computer-Aided Drafting I
An introductory course in CAD. Students learn how to create a drawing, make changes, and output to paper. Prerequisites: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score) and ENTK 1510 or concurrent enrollment. Additional Fee.

ENTK 2505
Computer-Aided Drafting II
A continuation of ENTK 2500 using advanced CAD skills. Prerequisites: Completion of ENTK 2500 and DVST 0510 or ENGL 0510 (or equivalent placement test score). Additional Fee.

ENTK 2510
Computer-Aided Drafting III
This course is a continuation of ENTK 2505. Students acquire knowledge in advanced AutoCAD features such as viewports, hatches, line types, 3-D objects, solid modeling, paper space plotting, and AutoLISP. The course is for practicing professionals (engineers and technicians). Prerequisites: ENTK 2505 and six months’ full-time AutoCAD experience. Additional Fee.

ENTK 2520
Advanced Mechanical Drafting
An advanced drafting course where students produce three sets of advanced machine working drawings, including the tolerancing of mating parts. Drawing will be done using AutoCAD. Prerequisite: Completion of ENTK 1520. Additional Fee.

ENTK 2555
Manufacturing and Design I
Students develop knowledge and skills for creating and constructing basic manufacturing drawings, making modifications to existing drawings, and performing basic paper output through printing techniques. Students practice construction techniques of basic objects and perform proper drafting etiquette while gaining experience in geometric problem-solving analysis. Prerequisites: Completion of ENTK 2500 and DVST 0510 or ENGL 0510 (or equivalent placement test score).

ENTK 2560
Manufacturing and Design II
Students develop advanced knowledge and skills of the application for creating and constructing work manufacturing drawings, making modifications to existing drawings, and performing paper output through printing techniques. Students practice advanced construction techniques of complex objects, basic assembly of objects, and perform proper drafting protocol. Prerequisite: Completion of ENTK 2500.
ENTK 2565
Manufacturing and Design III
Students develop knowledge and skills for creating complex models of manufacturing products, making modifications to existing objects, and performing paper output with rendering techniques. Students practice complex construction techniques of objects and prepare drawings to be printed to industry standards. Prerequisite: Completion of ENTK 2560.

ENTK 2570
AutoDesk Tools:
Students develop knowledge and skills in creating drawings that are necessary to communicate project intent. The course employs realistic scenarios in order for students to acquire the ability to develop, plan, and implement working drawings of a project utilizing a variety of AutoDesk tools such as Architectural, Mechanical, Land Desktop, and Revit. Prerequisite: Completion of ENTK 2505.

ENTK 2580
MicroStation I
Students develop knowledge and skills for creating and constructing mechanical drawings, making modifications to existing drawings, and performing basic paper output through printing techniques. Students practice construction techniques of basic objects and perform proper drafting etiquette. The course is designed for students seeking employment at state engineering institutions. Prerequisite: Completion of ENTK 2580.

ENTK 2585
MicroStation II
Students develop advanced knowledge and skills for creating and constructing mechanical drawings, making modifications to existing drawings, and performing paper output through printing techniques. Students practice advanced construction techniques of complex objects and perform proper drafting protocol. The course is designed for students seeking employment at state engineering institutions. Prerequisite: Completion of ENTK 2505.

ENTK 2590
MicroStation III
Students develop knowledge and skills for creating and modeling 3-D objects, making modifications to existing objects, and performing paper output through rendering techniques. Students practice basic 3-D construction techniques of objects and prepare drawings to be printed to industry standards. The course is designed for students seeking employment at state engineering institutions. Prerequisite: Completion of ENTK 2585.

ENTK 2598
MicroStation Tools:
Students develop knowledge and skills in creating drawings that are necessary to communicate project intent. The course employs realistic scenarios in order for students to acquire the ability to develop, plan, and implement working drawings of a project utilizing a variety of MicroStation tools such as GeoPak Civil, InRoads, TriForma, Structural, HVAC, and Descartes. Prerequisite: Completion of ENTK 2585.

ENTK 2600
Engineering Mechanics
Students gain an understanding of a non-vector approach to the prediction and description of rigid bodies when subjected to balanced forces. Students also acquire knowledge about equilibrium conditions of particles and rigid bodies; coplanar systems; distributed forces, motion of particles, work and energy, impulse and momentum, and moment of centroids. Prerequisites: Completion of ENTK 2520 and MATH 1400 taken concurrently with MATH 1405.

ENTK 2610
Engineering Material Laboratory
A lecture/laboratory course where students investigate the physical properties of soils, aggregates, bituminous mixtures, and Portland cement concrete. Students perform a series of physical tests in order to understand the general characteristics of each material tested. Prerequisite: Completion of ENTK 2500.

ENTK 2620
Engineering Materials and Hydraulic Strengths
Engineering students gain and apply knowledge of hydraulics and the tensile strength of materials. Descriptions of tension and compression in trusses and beams, various thin-walled vessels, and stresses at a point will be investigated and related to practical work situations. Prerequisite: Completion of ENTK 2500.

ENTK 2640
Elements of Low Volume Roads
Students demonstrate an understanding of the history and use of low volume roads. Elements of study include geometric consideration, materials used, hydraulic and subsurface drainage, frost action and stability. Prerequisite: Completion of MATH 0930 (or equivalent placement test score).

ENTK 2660
Elements of Engineering and Construction Documents
Students acquire knowledge of and will be able to apply the fundamentals of contract documents, basic estimating, and contract procurement. Students also learn about project time management as illustrated by bar charts and CPM scheduling and construction inspection. All information will be analyzed as real world procedures and problems. Prerequisite: Completion of ENTK 2610.

ENTK 2730
Land Transfer and Ownership
An introductory course on the subject of real property ownership and the transfer of ownership. Students acquire knowledge about the transfer of title by written and unwritten means and the actions of nature and man that cause the transfer of property by unwritten means. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

ENTK 2734
Introduction to Geodetic Surveying
An introductory course on the practice of surveying in which the size and shape of the earth (nearly a sphere) must be taken into account. Students acquire the knowledge about the effects of the earth's gravity field and shape on survey observations and the use of geodetic/geophysical surveying to study the tectonic and seismic actions of the earth, subsidence, dam and building deformation, air and land navigation (ships, missiles, aircraft, and landcraft), and political boundaries. Global Positioning Software (GPS) surveying is introduced. Prerequisites: Completion of ENTK 2001 or equivalent preparation and completion of MATH 0930 or equivalent placement test score.
ENTK 2735 (1 cr.)
Geodetic Surveying of Position
An introductory course on surveying procedure employed to determine the geodetic position (latitude and longitude) of specific points on or near the earth's surface. Students acquire knowledge about triangulation, traverse, trilateration, Very Long Baseline Interferometry, and satellite positioning procedures, including GPS and field survey instrumentation and procedures. Prerequisite: Completion of ENTK 2734 or equivalent preparation.

ENTK 2736 (1 cr.)
Geodetic Surveying of Elevations
An introductory course on the surveying procedures used to determine the elevation/height of points or the difference in elevation between points for mapping and engineering projects. Students acquire knowledge about the basic principles of precision leveling—the selection and maintenance of instrumentation, observing procedures, data reduction and analysis, planning, monumentation, and quality control. Prerequisite: Completion of ENTK 2734 or equivalent preparation.

ENTK 2740 (2 cr.)
Astronomy for Surveyors
An introductory course on applying astronomical observations to surveying and mapping projects. Students acquire knowledge about positional determination by astronomical observations and determining the direction (azimuth, bearing) of lines on the earth's surface from astronomical observations. The observations of stars and the sun to determine the meridian are described and performed, and students compute the azimuth of a line from actual survey observations. Prerequisite: Completion of ENTK 2740 or ENGL 1010 or permission of college instructor.

ENTK 2750 (1 cr.)
Land Boundary Descriptions I
An introductory course on the subject of writing land boundary descriptions for deeds and other purposes. Students learn to write the basic parts of a land boundary description and acquire knowledge about construction of the preamble or reference information, land parcel description (adjoiners, metes and bounds, aliquot parts, lots and blocks), area citation, and restrictions. Prerequisite: Completion of ENTK 2750 or ENGL 1010 or permission of the instructor.

ENTK 2755 (1 cr.)
Land Boundary Descriptions II
A continuation of ENTK 2750. A course involving the study of describing nonlinear boundaries (curves, contours, and stream and shore boundaries). Students acquire knowledge about coordinates, easements, rights-of-way, exceptions, restrictions, and the writing of strips of land easements and rights-of-way. Prerequisite: Completion of ENTK 2750.

ENTK 2760 (1 cr.)
Public Land Survey System I
An introductory course on the U.S. Public Land Survey System. Students acquire knowledge about the Ordinance of 1785 and early federal statutes that established the survey and sale of the public domain and the development of field surveying procedures. The time period covered concludes with the end of the American Civil War and the formation of the Wyoming Territory. Prerequisites: Completion of DVST 0510 or ENGL 0510 and MATH 0920 (or equivalent placement test scores) or concurrent enrollment.

ENTK 2765 (1 cr.)
Public Land Survey System II
A continuation of ENTK 2760. A course addressing General Land Office (GLO) surveys conducted in the territory and the state of Wyoming. Students acquire knowledge about surveying procedures and equipment employed and gain an understanding of the relationship between the contract deputy surveyors, the surveyor general, and the GLO commissioner. Topics include the Union Pacific Railroad and other railroad land grants, mining claims, special grants for improvements, irrigation land grants, military reservations, forest reserves, swamp land grants, school sections, fraudulent surveys, and townships. Prerequisite: Completion of ENTK 2760.

ENTK 2770 (1 cr.)
Contract and Specification Preparation
An introductory course on writing the technical elements for contracts and specifications. Emphasis is on correct writing format and language in order to minimize ambiguities and misinterpretations. Addressed are the topics of format, grammar, punctuation, deadlines, and scheduling. Students acquire knowledge about background preparation of contracts and specifications by means of technical literature search, market research, and definition of the desired results (goals). Prerequisite: ENGL 1010 or permission of the instructor.

ENTK 2780 (3 cr.)
Surveying Computations and Data Adjustments
An introductory course on converting survey field observations/data into a form suitable to the end user. Students apply principles and precepts learned in mathematics and statistics to surveying problems, develop analysis techniques needed to resolve conflicts between numerical data, and address complex survey networks using sophisticated procedures. Prerequisite: MATH 1405 (recommended ENTK 2070 and CE 2080) or permission of the instructor.

ENTK 2990 (1-3 cr.)
Topics in Engineering Technology
A course designed to provide students an opportunity to develop knowledge of and/or “hands-on” skills in contemporary engineering technology topics. Possible topics areas include computer application upgrades, program introductions, new technology products, and/or industry requested training. The course may be repeated up to a total of six semester hours for degree credit. A lab fee may be added for each topic to offset the college's cost for supplies. Students in area public schools who are taking the course as concurrent credit must have a recommendation from the high school technology instructor and permission of college instructor.

Engineering Technology – Civil Engineering

CE 2070 (3 cr.)
Engineering Surveying
An introductory course on ordinary field surveying. Students acquire skills in the practical aspects of the field survey operations of measuring distances, angles, differences in elevation, and in the care and maintenance of surveying equipment. The final project will be to collect survey data for a topographic map. Prerequisite: Completion of ENTK 1510. (Cross-listed as ENTK 2070.)

CE 2080 (3 cr.)
Elements of Surveying
An introductory course on the office aspects of surveying. Students learn to analyze field survey data and prepare maps and other information for the end user. Students also acquire knowledge about the interrelationships between field surveying, computations, and mapping functions. Prerequisite: Completion of ENTK 2070 or CE 2070.
English

ENGL 0510  (3 cr.)
Fundamentals of Reading I
Students improve their reading comprehension skills through reading for main idea, mastering helpful reading strategies, and improving vocabulary. This course is S/U grade only. Prerequisite: Reading placement test score at Level I.

ENGL 0520  (3 cr.)
Fundamentals of Reading II
A continuation of ENGL 0510. Students improve skills in comprehension, analysis of essays, critical reading, reading for specific content areas, and vocabulary building. (S/U grade only.) Prerequisite: Completion of ENGL 0510 or DVST 0510 (or equivalent placement test score).

ENGL 0630  (3 cr.)
Grammar and Writing Improvement
Students improve grammar and writing skills and develop correctly written and punctuated sentences and paragraphs. (S/U grade only) Prerequisite: Writing placement test score at Level I.

ENGL 0700  (3 cr.)
Fundamentals of English
Students develop the writing skills necessary for success in college writing applications. Emphasis is placed on the principles of structure, organization and development needed to write clear compositions. Much of the concentration is on the five-paragraph essay format. Prerequisites: Completion of DVST 0510 or ENGL 0510 and DVST 0630 or ENGL 0630 or writing test score in Level II. (S/U grade only)

ENGL 1010  (3 cr.)
English I: Composition
A composition course emphasizing various modes of expository and persuasive writing using computers. Students write effective thesis statements, organize their ideas (with essay mapping and/or other techniques), apply traditional and electronic research methods, use supportive details convincingly, and follow Modern Language Association guidelines in eight to twelve mechanically sound, electronically-produced, graded writing assignments. Students also rewrite, organize, draft, and revise written assignments using current word-processing technology. Prerequisites: Completion of DVST 0510 or ENGL 0510 and ENGL 0700 or ENGL 1001 (or equivalent placement test scores).

ENGL 1020  (3 cr.)
English II
ENGL 1020 is the second semester freshman English course. Students carefully read and critically analyze the following types of serious literature: fiction, poetry, and drama or film. Students also write several essays about literature. Prerequisites: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score) and ENGL 1010.

ENGL 1050  (3 cr.)
Literature and Film—1940 to Present
Focuses on the visual and verbal elements of films and the interrelationships between films and their literary origins. In their answers to factual questions on in-class exams, students demonstrate, orally and in writing, their ability to analyze, compare, and evaluate novels and narrative films. Prerequisites: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score), and ENGL 1010.

ENGL 2005  (3 cr.)
Writing in Technology and the Sciences
Students analyze audience and purpose to create various written communications specifically for technological and scientific fields of study. Students read and discuss readings, write for the appropriate audiences and purposes, learn and apply the appropriate in-text and bibliographical formats, and apply evaluation tools to their own and others' papers. Prerequisite: Completion of ENGL 1010.

ENGL 2020  (3 cr.)
Critical Reading and Writing
Students analyze a variety of rhetorical modes in this advanced composition course, which involves the complementary activities of writing and reading. Prerequisite: Completion of ENGL 1020.

ENGL 2040  (3 cr.)
Creative Writing
An analysis of the forms of poetry and prose and the practice of creative writing at the introductory level. May be repeated for up to 9 hours credit. Prerequisite: Completion of ENGL 1010 or instructor approval.

ENGL 2041  (3 cr.)
Creative Writing: Nonfiction and Poetry
A workshop course in nonfiction and poetry writing. Students analyze and practice these two literary genres and pay particular attention to the relationship between them. May be repeated for up to 9 hours of credit. Prerequisite: Completion of ENGL 1010 or instructor approval.

ENGL 2042  (3 cr.)
Creative Writing: Fiction and Drama
A workshop course in fiction and drama writing. Students analyze and practice these two literary genres and pay particular attention to the relationship between them. May be repeated for up to 9 hours of credit. Prerequisite: Completion of ENGL 1010 or instructor approval.

ENGL 2095  (3 cr.)
Writing Your Life
This course focuses on one genre of writing—the autobiography. Students have the opportunity to put in writing the stories that have shaped their lives. Our stories teach us profound lessons about ourselves, others, and our world. Students will understand and utilize the following process for developing an autobiographic essay: selecting a topic, generating ideas, focusing, structuring, and revising the essay. Prerequisite: Completion of ENGL 1010.

ENGL 2100  (1-2 cr.)
Literary Magazine
Students prepare to assume the responsibility of publishing a literary/arts magazine once a year. Students fulfill responsibilities in a variety of areas: recruitment, publicity, marketing, fundraising, sales, submission selection process, desktop publishing, magazine layout, and other editorial duties. (May be repeated for up to six credits.) Prerequisite: Approval of instructor.

ENGL 2110  (3 cr.)
World Literature I
A course based upon major literary works representing significant periods and forms in literary history from the ancients through the Renaissance. Students read and discuss major works, then develop writings about relevant issues, themes, and styles based upon those readings. Prerequisites: Completion of DVST 0520 or ENGL 0520 (or equivalent placement test score), and ENGL 1020.

ENGL 2150  (3 cr.)
World Literature II
A course based upon major literary works representing significant periods and forms in literary history from the Renaissance period to the present day. Students read and discuss major works, then develop writings about relevant issues, themes, and styles based upon those readings. Prerequisites: Completion of DVST 0520 or ENGL 0520 (or equivalent placement test score), and ENGL 1020.
ENGL 2210 (3 cr.)
*English Literature I*
A survey of English literature from ancient times through the Restoration. Students analyze readings in fiction, poetry, drama, and the essay. Writings are based on literary texts. Prerequisites: Completion of DVST 0520 or ENGL 0520 (or equivalent placement test score), and ENGL 1020.

ENGL 2220 (3 cr.)
*English Literature II*
A survey of English literature from the romantics through the moderns. Students analyze readings in fiction, poetry, drama, and the essay. Writings are based on literary texts. Prerequisites: Completion of DVST 0520 or ENGL 0520 (or equivalent placement test score), and ENGL 1020.

ENGL 2230 (3 cr.)
*Introduction to Shakespeare*
Students examine Shakespeare's writings, including selections from his histories, comedies, tragedies and romances, as well as his poetry. Alongside close readings of his texts, students explore contexts of Shakespeare's plays and poetry, both those contemporary to Shakespeare and those contemporary to the modern world, in order to address the lasting nature of his work. Prerequisite: Completion of ENGL 1020 or instructor approval.

ENGL 2310 (3 cr.)
*American Literature I*
A survey of the major figures and literary movements in the United States from the pre-colonial period to the Civil War. The course is divided into two major units: the literature of colonial America and the new republic and the literature of the American renaissance. Students gain an understanding of the historical, political, philosophical, and religious influences upon early American literature. Prerequisite: Completion of ENGL 1020.

ENGL 2320 (3 cr.)
*American Literature II*
A survey of the major figures and literary movements in the United States from the Civil War to the present, including the naturalism, realism, modernism, and post-modernism eras. Students gain an understanding of the historical, political, philosophical, and religious influences upon later American literature. Prerequisite: Completion of ENGL 1020.

ENGL 2330 (3 cr.)
*Contemporary and Multicultural Literature*
This course investigates post-World War II literature in English, including fiction, poetry, and essays by ethnic writers. Students examine the “American Dream” as relevant to contemporary American life through discussion of such issues as pluralism, discrimination, class and cultural conflict, and gender issues. Prerequisites: Completion of DVST 0520 or ENGL 0520 (or equivalent placement test score), and ENGL 1010. (Cross-listed as HUMN 2330.)

ENGL 2340 (3 cr.)
*Native American Culture and Literature*
A study of contemporary Native American literature including Sherman Alexie, N. Scott Momaday, Leslie Silko, and Luci Tapahonso. Students address the way Native American identity grows out of the borderland between oral and written traditions and western and Native American spirituality and culture. Prerequisite: Completion of ENGL 1020 or instructor approval.

ENGL 2420 (3 cr.)
*Literary Genres: Poetry*
Studies specific genres of literature. Emphasis will vary from semester to semester, depending on curricular needs. May be repeated for up to nine hours credit. Prerequisite: Completion of ENGL 1020.

ENGL 2450 (3 cr.)
*Literary Genres: Screenwriting*
As the foundation upon which a film is constructed, screenwriting is a form of creative writing concerned less with creating a world than proposing a world to be created by directors, actors, and others. Through critique sessions of numerous films, students analyze and scrutinize films from the point of view of construction. Using round robin screenwriting workshops, students compose their own original screenplays in full awareness of the significance of character, dialogue, motif, narrative convention, and progress. Prerequisite: Completion of ENGL 1010 (or equivalent placement test score).

ENGL 2492 (3 cr.)
*Topics: English as a Second Language*
A course for non-native English speakers in which students investigate basic characteristics of American values, style of communication, customs, and holidays, especially those of the western United States. Students also examine basic history of the United States and Wyoming. Students participate in discussions on assigned readings, field trips, and writing activities. Prerequisites: Placement in Level A on any component of the ESL COMPASS test.
ESL 0150  
Oral Skills  
(1-3 cr.)  
This course is offered to non-native English speakers working to improve their speaking and pronunciation skills. Students participate in pronunciation drills, increase vocabulary, learn about American English stress and intonation patterns. Students improve pronunciation, oral grammar, and listening skills through class lecture, discussion, videos, interaction with native and non-native English speakers, and other activities. May be repeated for credit up to 12 hours. Prerequisite: Placement in Level A of the Listening ESL COMPASS test.

ESL 0180  
Advanced ESOL (English for Speakers of Other Languages)  
(1-3 cr.)  
A course designed for non-native English speakers who have completed the ESL program or tested into the Advanced ESL level. In this course, students work with the instructor to improve their reading, writing, pronunciation, intonation, and rhythm to meet the requirements of CO/M 1010, CO/M 1030, or THEA 1100. This course must be taken in conjunction with CO/M 1010, CO/M 1030, or THEA 1100. Prerequisites: Completion of ESL 0200 and ESL 0330 or placement in Level A of the Listening ESL COMPASS Test.

ESL 0200  
TOEFL Preparation  
(3 cr.)  
This course provides international students with an opportunity to improve listening, writing, speaking, and reading comprehension skills to better prepare them to take the Test of English as a Foreign Language (TOEFL). Practice TOEFL exams will be administered during the course. Successful students improve 25 to 50 points on their TOEFL scores. The TOEFL is a prerequisite for international students for entry into a community college or university.

ESL 0220  
Oral Communication II  
(3 cr.)  
A low-intermediate listening and speaking course for non-native English speakers in which students continue to develop speaking and listening skills necessary for participating in classroom discussions with an introduction to oral presentation and critical listening skills. Students continue to expand vocabulary and improve pronunciation, grammar, and listening skills through class discussions, videos, guest speakers, and interaction with native English speakers. Prerequisite: Successful completion of ESL 0120 or equivalent placement test score.

ESL 0230  
Academic Reading and Vocabulary II  
(3 cr.)  
An intermediate reading course for non-native English speakers in which students continue to develop academic reading abilities. In this class, students read texts on contemporary academic and literary topics with an emphasis on extensive reading and the enhancement of critical reading skills. In addition, students continue to build vocabulary and participate in academic topic discussions. Prerequisites: Successful completion of ESL 0130 or equivalent placement test score.

ESL 0235  
Academic Writing II  
(3 cr.)  
An intermediate writing course for non-native English speakers in which students continue to develop academic writing with an emphasis on writing level-appropriate academic paragraphs in the traditional modes: observing, describing, defining, comparing and/or contrasting, explaining processes and/or classifying, and explaining cause(s) and/or effect(s). Prerequisites: Successful completion of ESL 0135 or equivalent placement test score.

ESL 0330  
Oral Communication III  
(3 cr.)  
A high-intermediate listening and speaking course for non-native English speakers in which students continue to develop communication, organization, and pronunciation skills necessary for effective academic presentation and discussion emphasizing oral presentation, critical listening, and note-taking skills. Students listen to college lectures, give oral presentations, and participate in class discussions. Prerequisite: Successful completion of ESL 0220 or equivalent placement test score.

ESL 0335  
Academic Writing III  
(3 cr.)  
A high-intermediate writing course for non-native English speakers in which students develop the ability to compose and produce lengthier texts on diverse general education academic topics by applying appropriate writing strategies. Students demonstrate the ability to apply the three-stage writing process of plan, compose, and revise essays for academic purposes. Prerequisites: Successful completion of ESL 0235 or equivalent placement test scores.

ESL 0420  
Advanced Oral Communication  
(3 cr.)  
An advanced listening and speaking course for non-native English speakers in which students continue to develop advanced communication, organization, and pronunciation skills necessary for effective academic presentation and discussion. This course emphasizes oral presentation critical listening skills. Students listen to advanced college lectures, give oral presentations, and participate in class and group discussions. Prerequisite: Successful completion of ESL 0320 or equivalent placement test score.

Entrepreneurship  
ENTR 1500  
Successful Entrepreneurship  
(2 cr.)  
An introductory course focusing on identification of the business skills, personal traits, and characteristics necessary to succeed as an entrepreneur. Students analyze and determine how to obtain the skills needed to own, operate, and manage a small business successfully. Through guided self-analysis, students assess their own alignment with the passion, creativity, and innovation that typifies entrepreneurial success. In addition, students explore the role of small business in both the U.S. and global economy, examine a variety of industries, businesses, entrepreneurial ventures, and create a personal business preference profile. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).
ENTR 1510 (2 cr.)
Analyzing Business Opportunities
An introductory course that explores the small business climate and the forces that create business opportunity. Students gain observation and trend analysis skills for the determination of unmet market needs, opportunity timelines, and resource assessment to act on identified opportunities. Students determine the market and industry research necessary to fully define the scope of a business opportunity. Students also identify what information cannot be readily determined and the associated decision-making risk. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

ENTR 1520 (2 cr.)
Creating a Business Plan
Students evaluate a business opportunity, collect and organize research data into a marketing plan, and prepare a financial plan for their small business idea. In addition, students gain skills to be able to continue developing their business plan as they learn new information and gain ability to make a “go” or “no-go” determination. Prerequisite: Completion of ENTR 1510.

ENTR 1530 (2 cr.)
Accounting for Entrepreneurs
An introductory course that focuses on small business accounting literacy. Students gain observation and trend analysis skills for the determination of unmet market needs, opportunity timelines, and resource assessment to act on identified opportunities. Students determine the market and industry research necessary to fully define the scope of a business opportunity. Students also identify what information cannot be readily determined and the associated decision-making risk. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

ENTR 1540 (2 cr.)
Marketing for Entrepreneurs
An introductory course that focuses on the unique marketing challenges of a new venture small business. Students conduct research, determine the target market, and develop a marketing strategy for the pricing, promotion, and distribution or “marketing mix” for their specific product. Students further investigate the attractiveness of promotion tactics such as direct mail, public relations, direct response, Internet marketing, and others that meet the needs of their specific businesses. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

ENTR 1590 (1-2 cr.)
Entrepreneurial Leadership I
College credit earned for hands-on experience in entrepreneurial leadership activities. Students have the option to choose among small business internships, free enterprise team activities, developing their small business in the student innovation center, participating in entrepreneurship competition events and/or other advisor-approved activities. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

ENTR 2500 (2 cr.)
Small Business Operations Management
Students develop skills for introducing new products and services, quality management, process design, job design, technology management, and related business design decisions. Students also develop operations decision-making skills for inventory, materials, scheduling, and planning specific to the needs of a small business as it progresses through the business life cycle. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

ENTR 2520 (2 cr.)
Legal Issues for Entrepreneurs
A course focusing on the legal start-up, growth, management, and exit strategies of small business. Students identify and analyze the legal and tax implications of the forms of business ownership. In addition, students examine the process of forming the various types of corporations. Students investigate human resource laws, contracts, reporting requirements, bankruptcy, collections, and small claims court topics. Students also determine how to protect their business innovations with copyright, trademark, patents, and intellectual property law. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

ENTR 2530 (2 cr.)
Funding Sources for Entrepreneurs
A course that focuses on the unique funding challenges of new ventures and small business. Students develop the information and techniques to fund a small business and to position their individual finances to produce favorable conditions for access to funding. Students also investigate methods for raising both start-up funding and operating funds such as SBA loan, bank financing, and personal financing. In addition, students gain experience in creating and presenting a funding proposal. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

ENTR 2540 (2 cr.)
Small Business Financial Management
A course that focuses on developing skills for financial management of a small business. Students prepare and analyze both personal and business financial statements. Students also develop decision-making skills grounded in profitability, break-even analysis, forecasting, and working capital management. Students are encouraged to use their own businesses or use case study businesses for development of statements. Prerequisite: Completion of ENTR 1530 or advisor approval.

ENTR 2590 (1-2 cr.)
Entrepreneurial Leadership II
College credit earned for continued hands-on experience in entrepreneurial leadership activities. Students have the option to choose among small business internships, free enterprise team activities, developing their small business in the student innovation center, participating in entrepreneurship competition events and/or other advisor-approved activities. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

Equine Studies
EOST 1505 (2 cr.)
Basic Horsemanship
Students explore the fundamentals of stable management including basics of English or western riding. For students with no previous riding experience or those wishing to improve their riding skills. No one under age 16 admitted to the course. Students must provide their own horse. Please call 307.778.1152 for further information.
EOST 1515 (4 cr.)
Equine Science I
A study of the anatomy and physiology of the horse. Students acquire knowledge about the evolution, behavior, and anatomy of the horse including the skeletal system, muscular system, joints, articulation, and causes of unsoundness and lameness. Students demonstrate a basic working concept of these principles in a weekly laboratory session.

EOST 1516 (3 cr.)
Equine Science II
A continuation of EOST 1515 with emphasis on the internal anatomy and physiology including a study of the digestive system, respiratory system, circulatory system, nervous system, endocrine system, urinary system, skin, and hair. Prerequisite: Completion of EOST 1515 or permission of instructor.

EOST 1535 (2 cr.)
Basic Horse Care
A course where students learn appropriate methods of horse care. Students demonstrate a knowledge of stableing facilities, pasture management, nutrition, conformation, diseases, vaccinations, lameness, hoof care, wound management, restraint, reproduction, and pregnant mare and foal care.

EOST 1550 (3 cr.)
Equine Evaluation I
A course geared to the evaluation of a horse's conformation and performance including terms used in horse judging, evaluation of conformation, and evaluation of performance.

EOST 1565 (2 cr.)
Basic Trimming and Hoof Care
A basic course on proper trimming techniques and minor corrective work. Students gain actual experience trimming horses under supervision. Students must provide their own tools.

EOST 1570 (3 cr.)
Horseshoeing I
A basic course on proper trimming and shoeing. Topics include leveling and balancing feet, shaping shoes to horse's feet, nailing, and clinching. Students gain knowledge of the anatomy and physiology of the lower leg and foot. Students shoe live horses when competent enough, with instructor permission. Students must provide their own tools.

EOST 1600 (2 cr.)
Equine Fitting and Showing Techniques
Students develop basic skills needed for training, preparing, and exhibiting horses in halter, western horsemanship, western pleasure, western riding, and reining. Techniques are presented in a lecture/lab setting, both in the classroom and animal science lab using demonstration animals. Students also assist with fitting horses for and producing an Intercollegiate Horse Show Association (ISHA) show.

EOST 1610 (3 cr.)
Showing Halter and Performance Horses
A course in which students fit, train, and show horses. Students show horses during the semester.

EOST 1615 (2 cr.)
Green Horse/Green Rider
An introductory course designed for student riders and/or horses who are unprepared for more advanced training or equitation courses. Students set and achieve individual goals with the aid of the instructor. Prerequisite: Students must provide their own horses, which are broken to ride and under control.

EOST 1620 (2 cr.)
Introduction to Jumping
Students develop basic jumping skills. Students enrolling for this class should have prior background in hunt seat equitation. Students are required to demonstrate proper jumping and hunt seat equitation techniques. Suitable helmet with harness and boots required. Horses must be serviceably sound.

EOST 1625 (2 cr.)
Green Horse/Green Rider II
A continuation of EOST 1615, a course in which student riders and/or horses have mastered basic techniques. Student riders and horses demonstrate continued refinement of gait, communication responses, and equitation techniques. Humane equine care is demonstrated and critiqued. Prerequisites: Students must provide their own horses. Completion of EOST 1615 or permission of the instructor.

EOST 1630 (2 cr.)
Introduction to Dressage
This course is designed to introduce the student to basic dressage. Topics include rider's position, tactful communication with the horse, and harmonious development of the physique and ability of the horse. Students learn the movements required to perform training-level dressage tests. Prerequisite: Students must provide their own horses for this course. Students must be able to walk, trot, and canter horses with control.

EOST 1635 (2 cr.)
Intermediate Dressage
This course is designed for students who have successfully completed EOST 1630 or have sufficient skills/knowledge in dressage. Students will continue their position in the saddle and work toward tactful communication with the horse and harmonious development of the physique and ability of the horse. Students must provide their own horse for this course. Prerequisite: Completion of EOST 1630 or equivalent preparation.

EOST 1650 (2 cr.)
Equine Evaluation II
A continuation of EOST 1550. Students examine breed and association standards for the judging of equine classes. Students also develop vocabulary and utilize proper terminology for the discussion of these equine classes. Equine classes examined in this course include Western Pleasure, Hunter Under Saddle, Reining, Western Riding, Hunter Hack, and Pleasure Driving. Prerequisite: Completion of EOST 1550 and consent of instructor.

EOST 1710 (2 cr.)
Basic Fundamentals in Cutting Horses
Students acquire and demonstrate the basics of positioning the horse in cutting competition and improve livestock handling skills, horse placement techniques, and horse training techniques. Students will be charged a livestock fee. Prerequisites: Students must have basic riding skills and supply their own horses.

EOST 1720 (2 cr.)
Basic Roping
This basic course is designed to help students acquire proper calf roping, heading, and heeling techniques. Students learn to use the appropriate type of rope and the proper basic rope swing for each event. Students demonstrate mental and physical preparation and proper equipment use. At the end of the course, students demonstrate technique improvement.

EOST 1725 (2 cr.)
Rodeo Rough Stock I
This course is designed as an initial preparatory course in the rodeo rough stock events. Students acquire basic knowledge in the individual events so they may ride competitively at NIRA-sponsored events. They demonstrate safety procedures, mechanical consistency, event rules, and mental and physical preparation. A livestock fee will be charged to each student. Enrollment by consent of instructor.
EOST 1730 (2 cr.)
Rodeo Rough Stock II
This course is the second in the series of rodeo rough stock classes. Students elevate basic knowledge in the individual events so they can ride competitively at NIRA-sponsored events. They demonstrate mechanical consistency, substantial improvement in their mental and physical preparation, safety procedures, and event rules. A livestock fee will be charged to each student. Enrollment by consent of instructor.

EOST 1735 (2 cr.)
Introduction to Rough Stock/Timer Events
An introductory course in rodeo rough stock and timed events. Students acquire basic knowledge about individual rodeo events. They gain an understanding of safety procedures, events rules, mental and physical preparation, horse and livestock handling procedures, and proper equipment usage. A livestock fee will be charged each student. Enrollment is by consent of instructor.

EOST 1740 (2 cr.)
Rodeo Timed Events I
This course is designed as an initial preparatory course in the rodeo timed events. Students acquire basic knowledge in the individual events so they can compete effectively at NIRA-sponsored events. They demonstrate mechanical consistency, substantial improvement in their mental and physical preparation, safety procedures, and events rules. A livestock fee will be charged to each student. Enrollment by consent of instructor.

EOST 1750 (2 cr.)
Rodeo Timed Events II
This course is designed as an initial preparatory course in the rodeo timed events. Students acquire basic knowledge in the individual events so they can compete effectively at NIRA-sponsored events. They demonstrate mechanical consistency, substantial improvement in their mental and physical preparation, safety procedures, and event rules. A livestock fee will be charged to each student. Enrollment by consent of instructor.

EOST 1760 (2 cr.)
Alternative Rodeo Timed Events I
This course is the first in a series of courses dealing with barrel racing and/ or goat tying. Students acquire skills in these events, enhance their competitive abilities, and demonstrate safety procedures, horsemanship techniques, practice methods, and mental and physical preparation. A livestock fee will be charged. Enrollment by consent of instructor.

EOST 1765 (2 cr.)
Alternative Rodeo Timed Events II
This is the second in a series of rodeo courses designed to increase knowledge of and skills in barrel racing and/or goat tying. Students enhance their basic skills and knowledge of NIRA rules and safety procedures in these events while improving their competitive abilities through supervised practical application. A livestock fee will be charged. Prerequisite: Completion of EOST 1760 or consent of instructor.

EOST 1770 (2 cr.)
Basic Reining Techniques
Students acquire knowledge about and develop skills in the training and riding of reining horses. Topics include leg controls, backing, circles, picking up leads, changing leads, turn-arounds, roll backs, and running patterns. The course follows those rules established by the National Reining Horse Association (NRHA). The training program of each student is tailored to fit both horse and rider. Prerequisite: Students must provide their own horse for this course. Instructor signature required.

EOST 1775 (2 cr.)
Basic Reining Techniques
Students are introduced to training methods used by area professional trainers. The students demonstrate proficiency in western and English pleasure, reining, trail, and halter. Other topics covered include nutrition, breeding, and health care. Prerequisite: Students must provide their own horses for this course.

EOST 1790 (4 cr.)
Advanced Training Techniques
A course emphasizing basic handling, correction of bad habits, and advanced training techniques leading toward an area of specialization. Prerequisites: Completion of EOST 1900 and EOST 2825.

EOST 2235 (2 cr.)
Equine Evaluation III
A continuation of EOST 1650. Students examine breed and association standards for the judging of equine classes. Students also utilize proper terminology for the discussion of these equine classes. Prerequisites: Completion of EOST 1650 and consent of instructor.

EOST 2500 (3 cr.)
Equine Health Management
A study of the principles of feeds and nutrition including balancing rations and principles of health management including a study of common diseases and wounds, first aid, disease prevention, stable management, stable planning, and record keeping. Prerequisite: Completion of EOST 1516 or permission of instructor.

EOST 2505 (2 cr.)
Equine Evaluation IV
A continuation of EOST 2235. Students examine horse judging as a career. Students learn the standards for judging 4-H and open horse shows, how to obtain a judge’s card in various breed organizations, and become familiar with typical contracts used in the equine judging profession. Prerequisites: Completion of EOST 2235 and consent of instructor.

EOST 2520 (3 cr.)
Equine Breeding
A study of the anatomy and physiology of the stallion and mare, the hormones of reproduction, basic genetics, and breeding systems and methods, including artificial insemination. The student will also be introduced to breeding-farm management. Prerequisite: Completion of BIOL 1010.

EOST 2560 (4 cr.)
Advanced Training Techniques
A course emphasizing basic handling, correction of bad habits, and advanced training techniques leading toward an area of specialization. Prerequisites: Completion of EOST 1900 and EOST 2825.

EOST 2650 (2 cr.)
Packing and Outfitting
A study of the principles of outfitting and packing the horse including hitches, knots, horse care, planning pack trips, and setting up camp. Students must provide their own horse for this course.
EOST 2660  (3 cr.)
Equine Sales and Service
Students gain experience in organizing and managing an equine auction, including how to hire personnel, prepare the sales catalog, organize and set up the sales facility, prepare advertising, and manage the sales barn. At the conclusion of the spring semester, students sell horses in a sale they produce.
Prerequisites: Completion of EOST 2560.

EOST 2670  (2 cr.)
English Equitation I
A course in the basics of English riding with emphasis on hunt seat. Students must provide their own horse for this course.

EOST 2700  (1 cr.)
Equine Seminar
Students apply knowledge of contemporary topics related to the equine industry, including current market trends, controversial issues, recent research, marketing strategies, and training methods and equipment. They also gain skills in resume writing, job searching, and the application process.

EOST 2730  (2 cr.)
Alternative Rodeo Timed Events III
This is the third in a series of rodeo courses designed to further increase knowledge of and skills in barrel racing and/or goat tying to enhance competition levels at NIRA-sponsored events. Students demonstrate mechanical consistency, coordinate mental and physical consistency and preparation, and practice precise event rules and improved livestock handling. A livestock fee will be charged. Prerequisite: Completion of EOST 1765 or consent of instructor.

EOST 2740  (2 cr.)
Rodeo Rough Stock III
This course is the third in the series of rodeo rough stock classes. Students further enhance skills and knowledge in the individual events so competition levels are increased at NIRA-sponsored events. They are demonstrating mechanical consistency, coordinating mental and physical preparation, demonstrating appropriate safety procedures, and administering concise event rules. A livestock fee will be charged to each student. Enrollment by consent of instructor.

EOST 2750  (2 cr.)
Rodeo Rough Stock IV
This course is the fourth in the series of rodeo rough stock classes. Students further enhance skills and knowledge in the individual events so competition levels are increased at NIRA-sponsored events. They are demonstrating mechanical consistency, coordinating mental and physical preparation, administering concise event rules. A livestock fee will be charged to each student. Enrollment by consent of instructor.

EOST 2760  (2 cr.)
Rodeo Timed Events III
This course is the third in the series of rodeo timed event classes. Students further enhance skills and knowledge in the individual events so competition levels are increased at NIRA-sponsored events. They are demonstrating mechanical consistency, coordinating mental and physical preparation, administering concise event rules, and improving livestock handling ability and advanced horse placement utilization. A livestock fee will be charged to each student. Enrollment by consent of instructor.

EOST 2770  (2 cr.)
Rodeo Timed Events IV
This course is the fourth in the series of rodeo timed event classes. Students are demonstrating skill and knowledge in the individual events so competition levels are increased at NIRA-sponsored events. They are performing mechanical consistency, executing mental and physical preparation, administering appropriate safety procedures, and demonstrating precise event rule knowledge. A livestock fee will be charged to each student. Enrollment by consent of instructor.

EOST 2780  (2 cr.)
Intermediate Team Roping
Students learn the correct methods of team roping. Students demonstrate proper horse handling techniques in the box, approach to cattle, and setting cattle for the heeler. Handling livestock, use of equipment for team roping, and physical and mental preparation will be stressed. Students become familiar with the Professional Rodeo Cowboys Association (PRCA) rule book, and safety will be practiced at all times. A livestock fee will be charged to each student. Enrollment by consent of instructor. Prerequisite: Students must have the basic horsemanship skills required to rope and ride at the same time.

EOST 2800  (1-3 cr.)
Fundamentals of Teaching Riding
Students develop the basic skills necessary to become an effective teacher of riding. Through classroom and arena assignments, the student has the opportunity to gain confidence, learn methods of organization, and practice teaching techniques. Students serve as teaching assistants and learn techniques in teaching basic horsemanship skills.

EOST 2805  (2 cr.)
Western Equitation
A course in the basic exercises needed to improve balance, the proper use of aids such as hands, weight, legs and voice, and appropriate use of cues at all three gaits. Students must provide their own horses for this course.

EOST 2806  (3 cr.)
Western Pleasure
A course in the basics of western pleasure riding with emphasis on movement, control, and collection of the horse. Students must provide their own horse for this course. Students must be approved by the instructor prior to registering for the course. Please call 307 778 1152 for further information.

EOST 2825  (4 cr.)
Advanced Horse Management and Training
A continuation of EOST 1900, emphasizing advanced greening. Prerequisite: Completion of EOST 1900.
**Finance**

FIN 2100 (3 cr.)
Managerial Finance
Students gain a theoretical and practical framework for corporate financial management. Topics to be included are functions of financial management, financial analysis and forecasting, time value of money, risk and return, portfolio analysis, capital budgeting, financial assets, and cost of capital. Prerequisites: Completion of/or concurrent with ACCT 2020, MATH 2355, and STAT 2010.

**Fire Science**

**FIRE 1501**
**Principles of Emergency Services**
Students explore principles of emergency services, including fire protection, career opportunities in fire protection, and related fields. Students examine the philosophy and history of the fire service, fire loss analysis, and the organization and function of public and private fire protection services. Students analyze fire departments as part of the local government, laws and regulations affecting the fire department, and many other topics specific to the foundation of firefighting and emergency services. Prerequisite: Completion of FIRE 1501, and/or program manager approval.

**FIRE 1625**
Fire Protection Hydraulics and Water Supply
Students explore the use of water in fire protection, apply hydraulic principles, analyze flow demand criteria, and solve water supply problems. Prerequisite: Completion of MATH 0930 (or equivalent placement test score) or program manager approval.

**FIRE 1700**
Introduction to Fire Prevention
Students acquire fundamental information regarding the history and philosophy of fire prevention, organization, and operation of a fire prevention bureau; use of fire codes, identification and correction of fire hazards; and the relationships of fire prevention with built-in fire protection systems, fire investigation, and fire and life-safety education.

**FIRE 1725**
Fire Protection Systems
Students acquire information relating to the features of design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, and water supply for fire protection and portable fire extinguishers. Prerequisite: Completion of MATH 0930 (or equivalent placement test score).

**FIRE 2800**
Fire Academy
In this course, students develop and apply the skills listed in the State of Wyoming Firefighter I and II manipulative skills objectives catalog. Students participate in lecture and drill ground activities. Upon successful completion of the course, students are eligible to take state testing for Firefighter Level I and II certification. Prerequisite: Completion of FIRE 1501 or program manager approval. Additional Fee.

**FIRE 2970**
Firefighter Field Experience
In this course, students prepare for life in the fire service. Students participate in the daily duties of an actual fire department. Students act as members of the designated department and perform duties as “rookie” firefighters. Students observe and participate in actual emergent and non-emergent situations. Prerequisites: Completion of FIRE 1760, FIRE 1825, FIRE 2800 (or current FF Level II certification) and/or program manager approval. Additional Fee.
**French**

**FREN 1010 (4 cr.) First Year French I**
A college-level introduction to beginning French. Lecture 4 hours, encouraged class participation to fit individual needs where possible. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

**FREN 1020 (4 cr.) First Year French II**
A continuation of FREN 1010. Prerequisite: Completion of FREN 1010.

**FREN 2030 (4 cr.) Second Year French I**
The third semester of college-level French. A continuation of FREN 1020. Prerequisite: Completion of FREN 1020.

**Geography**

**GEOG 1000 (3 cr.) World Regional Geography**
This course explores the topics of globalization and localization and how they affect world geography. Students gain knowledge on distribution, traits, and processes of people and landscapes within specific geographic regions as well as within an interconnected global community. Due to the number of written assignments, completion of or concurrent enrollment in ENGL 0700 is strongly recommended. Prerequisites: Completion of DVST 0510 or ENGL 0510 and DVST 0630 or ENGL 0630 (or equivalent placement test scores).

**GEOG 1010 (4 cr.) Introduction to Physical Geography**
A systematic study of natural aspects of the geographic environment, including weather and climate, landforms, soils, and vegetation. Students examine atmospheric processes as well as the physical forces shaping the earth's crust, with special concentration on western regions of North America. Because many geography instructors require written assignments, ENGL 1010 or its equivalent is strongly recommended. This course satisfies the earth science requirement for the Associate of Arts and the Associate of Science degrees. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score). Additional Fee.

**GEOG 1016 (1 cr.) Introduction to ArcGIS I**
This is an ESRI-authorized course in Geographic Information Systems (GIS). Students develop the foundation for becoming successful GIS users. Students acquire fundamental GIS concepts and become familiar with the range of functionality available with the software through course exercises. Problem-solving skills are applied using spatial information. Students earn an ESRI (Environmental Systems Research Institute) certificate upon completion. Prerequisite: Students should be familiar with Windows-based software. Additional Fee.

**GEOG 1020 (3 cr.) Human Geography**
An analysis of spatial patterns and interactions between the world's great cultural systems. Students evaluate topics in global resource utilization, population, language, religion, settlement, and agricultural land use. Because many geography instructors require written assignments, ENGL 1010 or its equivalent is strongly recommended. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

**GEOG 1050 (3 cr.) Introduction to Natural Resources**
A course where students examine human interaction with the environment, ranging from regional to global scales. Students become knowledgeable about and gain an understanding of approaches to environmental management. The course emphasizes the scientific aspects of environmental concerns. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

**GEOG 1100 (3 cr.) Introduction to Geographic Information Systems**
An introductory Geographic Information Systems (GIS) course. Students explore the use of computers in displaying and analyzing spatial information and acquire skills in manipulating geographic state for a variety of uses, including natural resource management, planning, health care, Homeland Security, agriculture, etc. The course emphasizes active learning. Students should be familiar with Windows-based computer operating system.

**GEOG 2200 (3 cr.) Wyoming Geography**
A study of Wyoming's geographic features. Students examine and acquire knowledge about the climate and landscape features, ecology, material resources, economic patterns, areal organization, and population configurations of Wyoming. Because geography instructors typically require written assignments, ENGL 1010 or its equivalent is recommended. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

**Geology**

**GEOL 1035 (3 cr.) Geology of Yellowstone National Park**
A study of Yellowstone's earth materials and processes including rocks, minerals, streams, glacial history, geologic structures, earthquakes, and plate tectonics. Students acquire scientific knowledge about the formation of Yellowstone's landscape, geothermal features, soils, and geologic hazards. Prerequisite: Completion of GEOL 1100, its equivalent, or permission of the instructor. Additional Fee.

**GEOL 1100 (4 cr.) Physical Geology**
A study of earth materials and processes including rocks and minerals, streams, glaciers, geologic structures, earthquakes, and plate tectonics. Students acquire scientific knowledge about the earth's formation, movement of crustal plates, modifications of landforms, water cycles and resources, soil preservation, and geologic hazards to mankind. Students use geologists' techniques and methods in the pursuit of scientific inquiry. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score). Additional Fee.

**GEOL 1200 (4 cr.) Historical Geology**
A study covering evolution of the solar system and Earth's oceans and atmosphere. Students learn to infer geologic history through careful study of fossils, rocks, and geologic structures in North America. Students also acquire theory of the origin of life, organic evolution, modern plate tectonics, and absolute dating. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score). Additional Fee.
German

**GERM 1010** (4 cr.)
**First Year German I**
A college-level introduction to beginning German. Lecture 4 hours, encouraged class participation to fit individual needs where possible. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

**GERM 1020** (4 cr.)
**First Year German II**
A continuation of GERM 1010. Prerequisite: Completion of GERM 1010.

**GERM 2030** (4 cr.)
**Second Year German I**
The third semester of college-level German. A continuation of GERM 1020. Prerequisite: Completion of GERM 1020.

Greek

**GRK 1010** (4 cr.)
**First Year Greek I**
An introduction to the elementary principles of the ancient Greek language, starting from the very beginning. No prior knowledge on the part of the student is assumed. The students systematically acquire knowledge about the fundamentals of grammar and composition while reading classical Greek. Students develop skills in Classical (Attic) Greek, not Modern Greek. However, students successfully completing first year Greek should find the Greek of the New Testament and simple texts like Herodotus and Thucydides quite accessible.

**GRK 1020** (4 cr.)
**First Year Greek II**
An intermediate, college-level course focusing on the review and mastery of major grammatical structures of the language, as well as the refinement of basic skills through reading selections of Attic Greek prose and poetry. Students demonstrate a command of complex grammar structures and idiomatic expressions, translate passages of increasing difficulty, and interpret Greek poetry and prose in cultural context. In addition, students develop recognition of the contributions of Greek to the English language while expanding their appreciation of Greek literature, thought, and expression. Prerequisites: Completion of GRK 1020.

**GRK 2030** (4 cr.)
**Second Year Greek**
An intermediate, college-level course focusing on the review and mastery of major grammatical structures of the language, as well as the refinement of basic skills through reading selections of Attic Greek prose and poetry. Students demonstrate a command of complex grammar structures and idiomatic expressions, translate passages of increasing difficulty, and interpret Greek poetry and prose in cultural context. In addition, students develop recognition of the contributions of Greek to the English language while expanding their appreciation of Greek literature, thought, and expression. Prerequisites: Completion of GRK 1020.

**GRK 2150** (4 cr.)
**Selected Readings in Biblical Greek**
An intermediate, college-level course focusing on the essentials of Greek grammatical forms, syntax, and vocabularies for preparing students to read the New Testament in the original language. Students extend their grammatical education while engaging with original New Testament texts. In addition, students explore the use of grammars, dictionaries, synopses, concordances, and exegetical uses of biblical Greek. By the end of the semester, students have a degree of fluency in translation of the Gospels and can understand the text at a level unattainable through mere reading of English versions. Prerequisite: Completion of GRK 1020.

**GRK 2200** (4 cr.)
**Selected Readings in Homeric Greek**
Students acquire a pre-classical Greek grammar and syntax, master foundational Homeric vocabulary and scansion of dactylic hexameter, and are introduced to the conventions of oral epic poetry and its Bronze Age context, through readings from both the Iliad and Odyssey in the original Homeric Greek and in English. Prerequisite: Completion of GRK 2030.

**HLTK 1210** (3 cr.)
**Human Body Systems**
This course involves the study of human anatomy and physiology as applied to non-clinical medical fields. Successful students acquire basic knowledge of the structure and function of the human body, common diagnostic values, body defenses, and supplements to improve health. This non-lab course is designed for students interested in clerical positions of medical coder, medical secretary, unit clerk, physician office clerk, skilled nursing facility clerk, or other medical-related positions.

**HLTK 1200** (2 cr.)
**Medical Terminology**
A study of medical vocabulary and terminology. Students demonstrate knowledge of suffixes, prefixes, root words, and their combining forms through testing and correct spelling. Abbreviations commonly used in the health care system also will be mastered.

**HLTK 2300** (3 cr.)
**Health Care Ethics**
An exploration of basic ethical issues embedded in health care. Students gain and demonstrate basic knowledge of practical application tools used to evaluate contemporary medical issues. In addition, students formulate and critically analyze health care issues and apply course material for further understanding to issues that arise in the clinical setting. Students also debate, lecture or present topics in the health care arena with emphasis on diversity of ethical analysis and non-judgmental collaboration. Prerequisite: Completion of ENGL 1010.

**HLTK 2510** (2 cr.)
**Pathophysiology**
An introduction to the physiology of human disease processes, intended for health professions students. Students explore the nature of various diseases and conditions, methods of diagnosis, medical and surgical treatment options, and disease risk factors, classified by affected body systems. Prerequisites: Completion of HLTK 1210 or ZOO 2015. Prior completion of or concurrent enrollment in ZOO 2025 recommended.
HVAC 1600  
**Mechanical Piping Systems**  
(3 cr.)  
Students explore the different piping materials used for heating, ventilation, air conditioning, and refrigeration, including polyvinyl chloride (PVC), hard and soft copper, and galvanized and back iron piping. They develop skills to measure, cut, prepare, and connect piping and tubing. In addition, students use a piping schematic to layout a piping system. Finally, students identify and explain the use of common fittings and valves for different styles of piping and tubing. Additional Fee.

HVAC 1610  
**Heating and Air Conditioning Principles**  
(3 cr.)  
Students examine the primary concepts of thermal dynamics and fluid dynamics, including attributes of heat and pressure, states of matter, transfer methods, energy conversion, and expressions of power. They gain a fundamental understanding of the refrigeration cycle, system components, and refrigerant properties. Students also explore how the properties of air—such as humidity and temperature—affect human comfort. Additional Fee.

HVAC 1620  
**Refrigeration Circuit Components**  
(3 cr.)  
Students examine the major refrigeration system components, including evaporators, condensers, compressors, metering devices, and accessories. Students apply the internal workings of each different type of component to an operational refrigeration circuit. Additional Fee.

HVAC 1630  
**Energy Efficient Residential Heating Systems**  
(4 cr.)  
Students explore the major types of heating systems in residential dwellings, including natural gas furnaces, oil furnaces, electric furnaces, and hot water boiler systems. Students analyze equipment types along with their efficiency ratings. Students use electronic test equipment to safely troubleshoot and adjust the various types of heating systems. Additional Fee.

HVAC 1640  
**Automatic Building Controls**  
(3 cr.)  
Students discover how various types of controls work and how they are applied in heating, ventilation, air conditioning, and refrigeration systems. In particular, they examine bimetallic, liquid-filled, vapor-filled, thermocouple, and thermister controls. In addition, students experiment with the operation of temperature controls, pressure controls, hydronic relief valves, and transducers to include accurate adjustments. Finally, students troubleshoot and repair control systems using electrical test equipment such as voltmeters, ammeters, and ohmmeters. Additional Fee.

HVAC 1650  
**Residential Air Conditioning Systems**  
(3 cr.)  
Students leak check, evacuate, recharge refrigerant from and charge residential and light commercial air conditioning systems. They open and seal refrigeration systems using brazing and soldering techniques. They also examine Core, Type I, Type II, and Type III system characteristics as they prepare to take the Environmental Protection Agency (EPA) Refrigerant Handling Certification exams. Additional Fee.

HVAC 1660  
**HVAC Distribution Systems**  
(3 cr.)  
Students examine the primary concepts of Indoor Air Quality (IAQ). They also investigate the hazards of improper IAQ and methods to mitigate those hazards to include ventilation, humidification, and dehumidification of living spaces. Students examine air distribution systems and use test equipment to measure pressure and flow as part of system balancing. Additional Fee.

HVAC 1670  
**Light Commercial Refrigeration Systems**  
(3 cr.)  
Students identify various supermarket refrigeration units for analyzing the selection and installation placement procedures for the equipment. They predict how different refrigerant system installation methods could affect a building’s heating, ventilation, and air conditioning systems. In addition, students examine the unique operation quality control aspects of commercial ice production before operating, maintaining, and repairing commercial ice machines. They evaluate and troubleshoot the operation of several styles of commercial refrigeration systems. Additional Fee.

HVAC 1680  
**Energy Efficient Air Conditioning Units**  
(3 cr.)  
Students examine the operation, maintenance, and repair of commercial heating, ventilation, and air conditioning systems. They discover how the components of a heat pump work to provide heating or cooling. Finally, students identify the different types of geothermal loops that are used in regions of the country as well as the unique maintenance and repair requirements for each type of loop. Additional Fee.

HVAC 1690  
**Advanced Air Conditioning Skills**  
(3 cr.)  
Students analyze operating conditions, compare results to the manufacturer’s data, and predict potential effects to heating, ventilation, and air conditioning equipment. They interpret a system’s sequence of operation, gather customer information, and use test equipment to troubleshoot mechanical and electrical faults. Students perform residential load and duct-sizing calculations. They also practice customer service techniques. Additional Fee.

HVAC 1700  
**Energy Audit Skills**  
(4 cr.)  
Students develop skills needed to inspect, measure, and test the energy efficiency of residential buildings for various factors, including the tightness of the structure, the insulation levels, and the energy consumption of the appliances. They also inspect and test for safety concerns such as carbon monoxide, asbestos, mold, and lead base paint, along with general hazards, including electrical, plumbing, and structural concerns. Students also develop skills to effectively communicate with owners to find critical information about a facility’s history. They analyze the information for the most cost effective solutions and provide a report to the customer. Additional Fee.

History

HIST 1110  
**Western Civilization I**  
(3 cr.)  
Students demonstrate a knowledge of the development of civilizations in the West from ancient times through the Renaissance, Protestant Reformation, and the early voyages of exploration. The role of the common person as well as the accomplishments of influential leaders in ancient, medieval, and modern times will be emphasized. Prerequisites: Completion of ENGL 0700 or ENGL 1001 or placement into ENGL 1010, or concurrently enrolled in ENGL 1010.
HIST 1120  
Western Civilization II  
(3 cr.)
This course is a continuation of HIST 1110. Students gain insights into the unfolding of the patterns of modern western civilization from the 17th century to current times including the Enlightenment, the Age of Revolution, the growth of modern industrialism, and the rise of 19th century “isms.” Social and intellectual developments are covered along with political change and international relations. Prerequisite: Completion of ENGL 0700 or ENGL 1001 or concurrently enrolled in ENGL 1010.

HIST 1130  
Introduction to the Old Testament  
(3 cr.)
A historical, archaeological, and literary survey of the Old Testament and its surrounding environment. During the course, students acquire knowledge of the process and development of the Old Testament with its history, cultural environment, and literary development. Prerequisite: Completion of ENGL 0700 or ENGL 1001 or placement into ENGL 1010, or concurrently enrolled in ENGL 1010. (Cross-listed as RELI 2110)

HIST 1135  
New Testament Survey  
(3 cr.)
An introduction to the historical, religious, and political setting of the Near East from Alexander the Great to the end of second century C.E. The class investigates Judaism and Christianity in the Roman World. The New Testament will be viewed from within the context of the Greco-Roman civilization in which the early Christians lived. Prerequisite: Completion of ENGL 0700 or ENGL 1001 or placement into ENGL 1010, or concurrently enrolled in ENGL 1010. (Cross-listed as RELI 2150)

HIST 1150  
History and Philosophy of Islam  
(3 cr.)
A general survey of the history and philosophy of the Islamic religion. Students acquire knowledge about and gain an understanding of Islamic history, Islamic principles and practices, Islamic law, Islamic relationship to other religions, and Islam in the context of the modern world. (Cross-listed as RELI 1150.)

HIST 1211  
U.S. to 1865  
(3 cr.)
A survey of United States history commencing with the European background and first discoveries. The pattern of colonization and the development of American institutions are followed throughout the colonial period and the early national experience to 1877. Students also gain an understanding of the constitutions of the United States and Wyoming. Special emphasis is given to the revolutionary-constitutional period. Prerequisite: Completion of ENGL 0700 or ENGL 1001 or placement into ENGL 1010, or concurrently enrolled in ENGL 1010.

HIST 1221  
U.S. from 1865  
(3 cr.)
A study of events from the Reconstruction era to the present day including political, economic, and social aspects of American life and the development of the United States as a world power. Students also gain an understanding of the constitutions of the United States and Wyoming. Prerequisite: Completion of ENGL 0700 or ENGL 1010 or placement into ENGL 1010, or concurrently enrolled in ENGL 1010.

HIST 1251  
Wyoming History  
(3 cr.)
A study of Wyoming’s economic, political, constitutional, and social history from preterritorial days to the present. Students also gain an understanding of the constitutions of the United States and Wyoming. Prerequisite: Completion of ENGL 0700 or ENGL 1001 or placement into ENGL 1010, or concurrently enrolled in ENGL 1010.

HIST 1290  
History of the U.S. West  
(3 cr.)
In this survey history course, students examine frontier life in the Far West focusing on the nineteenth century from the early explorations through the fur trade and including territorial expansion to the Pacific, the mining frontiers, the cattle trail and farming frontiers, and the Plains Indians. Students also explore current issues related to development of the West during the twentieth century. Prerequisite: Completion of ENGL 0700 or ENGL 1001 or placement into ENGL 1010, or concurrently enrolled in ENGL 1010.

HIST 2020  
U.S. Military History  
(3 cr.)
A historical survey of major military campaigns of the United States armed forces from the colonial period through the Persian Gulf conflict. Students demonstrate knowledge of and will be able to analyze the various causes, actions, and consequences of U.S. military involvement. Prerequisite: Completion of ENGL 0700 or ENGL 1001 or placement into ENGL 1010, or concurrently enrolled in ENGL 1010.

HIST 2060  
Topics in History  
(1-6 cr.)
A course to be offered based on sufficient demand from students and on the resources of the history program. In general, the courses are designed to increase student knowledge and understanding about how to think historically in order to develop a greater understanding of and appreciation for the institutions of society and for the forces at work in historical events and trends and will apply the “lessons” of history to the present world situation. Prerequisite: Completion of ENGL 0700 or ENGL 1001 or placement into ENGL 1010, or concurrently enrolled in ENGL 1010.

HIST 2225  
History of Christianity  
(3 cr.)
A survey of the history of Christianity from the end of the Apostolic era to 20th century developments in North America. Students acquire knowledge about and gain an understanding of the following topics: the patristic era, the expansion of Christianity, the monastic movement, the medieval Western Church, the Orthodox Church, the Great Schism, the Enlightenment and Reformation, the English Reformation, the growth of institutions, the church in North America, new denominations, the missionary and conciliar movements, the times of theological controversy, and 20th century developments in church life. Prerequisite: Completion of ENGL 0700 or ENGL 1001 or placement into ENGL 1010, or concurrently enrolled in ENGL 1010. (Cross-listed as RELI 2225.)

HIST 2290  
History of North American Indians  
(3 cr.)
Students study North American Indian history from the time of Columbus through present. Students examine how political, social, and economic change impacted the Indian people. Prerequisite: Completion of ENGL 1010.
**Homeland Security**

**HSEC 1000 (3 cr.)**
**Introduction to Homeland Security**
Students focus on a comprehensive, up-to-date overview of homeland security from an all-hazards perspective. Students examine threats to homeland security, including natural and technological disasters, as well as intentional threats of domestic and international terrorism, including weapons of mass destruction. Students review the roles and responsibilities of government agencies, non-government organizations, and individual citizens in homeland security. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score), or consent of the instructor.

**HSEC 1002 (3 cr.)**
**Terrorism and Counterterrorism**
Students analyze the roots of terrorist activities throughout the world and discuss national, regional, and global effects of historical and recent terrorist acts. Students examine new and growing threats including narco-terrorism, terrorist recruitment on the Internet, and genomic terrorism. They progress from the analysis of terrorism to the past, present, and future responses (counterterrorism) to national and international terrorism. Finally, students consider historical defenses as well as new concepts and innovations for the prevention and mitigation of terrorist attacks. Prerequisite: Completion of HSEC 1000 or consent of instructor.

**HSEC 1003 (3 cr.)**
**Homeland Security and First Responders**
Students examine the unique role of the local first responder in the war against terrorism. Students identify the common elements of a disaster response and the roles of each first responder discipline in the response and recovery. Course emphasis is on the actions and procedures “at the scene” where decisions are made using the Incident Command System rather than the concepts and policies applied by officials physically removed from the incident. Prerequisite: Completion of HSEC 1000 or written consent from the instructor.

**HSEC 1025 (3 cr.)**
**Homeland Security and Emergency Management Partnerships**
Students focus on the partnerships between emergency management to homeland security at the federal level and the impact of these changes at the state and local level. Students look briefly at various focus areas in the emergency management field that should be examined by individuals entering the homeland security field of study. After a summary of each focus area, students examine sources of detailed information, including existing college courses, public domain reference materials, and online training available free of charge from the federal government. Students receive a broad understanding of the emergency management discipline and the knowledge that must be brought forward to function effectively in the homeland security discipline. Prerequisite: Completion of HSEC 1000 or consent of instructor.
HSEC 2001
Homeland Security Legal, Policy, and Privacy Issues
Students receive an overview of major federal laws and their impact on the development of policies, strategies, and plans for dealing with various threats to homeland security. Students review the roles and responsibilities of government agencies, non-government organizations, and individual citizens for U.S. national security. In addition, strategic planning is addressed, including the National Response Plan and the National Incident Management System. Students discuss various policy and strategy issues, including balancing security, civil liberties, and privacy. Prerequisite: Completion of HSEC 1000 or written consent from the instructor.

HSEC 2004
Homeland Security and Law Enforcement
Students receive an introduction to terrorism using a criminological or criminal justice framework for studying terrorist groups and individuals, terrorist origins, goals, dynamics, ideologies, counterterrorism, and homeland security. Students examine the structure and dynamics of terrorism, terrorist weapons, strategies and tactics, how they evolve, the ways in which they operate, how terrorists obtain funding, their use of the media, and theories of counterterrorism. Students review definitions of terrorism, analyze specific concepts, and examine issues that arise when responding to terrorism or the threat of terrorism. Prerequisite: Completion of ENGL 0700 or ENGL 1001 or placement into ENGL 1010. (Cross-listed as CRMJ 2004.)

HSEC 2006
Terrorism and Weapons of Mass Destruction
Students examine the proliferation of weapons of mass destruction (WMD): Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) weapons that could cause massive casualties if used for terrorist attacks. Students examine the vulnerability of the U.S. populace to such weapons. Students explore strategies of how to prevent, limit, defend, and/or deter the use of weapons of mass destruction by terrorists. Finally, students examine the spread of CBRNE weapons and the threat of black market CBRNE weapons from the former Soviet arsenal. Prerequisites: Completion of ENGL 1010 and HSEC 1000 or consent of the instructor.

HSEC 2010
Cyber-Terrorism
Students explore how the information revolution and America’s increasing utilization and reliance upon computers has affected societal infrastructure. Students examine the critical infrastructure composed of those systems and assets—both physical and cyber in nature—that are so vital that incapacitation or destruction would have a debilitating impact on national security, economic security, and/or public health and safety. Students look at how a “networked” world has bred new crimes and new responses and investigate how the computer has become a tool, target, and place of criminal activity and national security threats, as well as a mechanism of response. Finally, students examine the convergence of existing laws, equities, and variables in this multidisciplinary area, along with the economic, cost-benefit conflicts that are created as a result of various competing concerns. Prerequisite: Completion of ENSEC 1000.

Honors Program

HP 1010
Honors Seminar I
(1 cr.)
A first course designed to provide an additional academic challenge and growth opportunity to honors students. Students discuss content from the Learning Community courses; access, evaluate, and correctly utilize research in seminar projects; and demonstrate critical thinking and problem-solving skills in products created for the seminar. This course must be taken in conjunction with at least two of the following Learning Community courses: HUMN 1010, ENGL 1010, HIST 1110.

HP 1030
Honors Seminar II
(1 cr.)
A second course designed to provide an additional academic challenge and growth opportunity to honors students. Students discuss content from the Learning Community courses; access, evaluate, and correctly utilize research in seminar projects; and demonstrate critical thinking and problem-solving skills in products created for the seminar. This course must be taken in conjunction with at least two of the following Learning Community courses: HUMN 1020, ENGL 1020, HIST 1120.
Human Services

HMDV 1370 Stress Management
(2 cr.)
In this course, students develop strategies to manage stress through a comprehensive approach to assessment and application of practical solutions. Students also develop and demonstrate skills in the areas of time management, relaxation, physical activity, nutrition, assertiveness, study skills, and interpersonal communication. In addition, students gain experience in goal setting and stress/lifestyle management planning. A variety of assessment inventories and questionnaires will be used to identify and understand the impact of stress on one’s life.

HMDV 1275 Foundations of Leadership
(1 cr.)
Foundations of Leadership approaches leadership and social change from both theoretical and practical perspectives. Students explore leadership in relation to individuality, group dynamics, social justice, and community engagement. Through readings, case studies, reflection exercises and group work, students examine leadership as an inclusive, relational process through which individuals, organizations, and systems create social change. Prerequisite: Interest or experience in campus student leadership positions.

HMDV 1360 Self-Esteem Enhancement
(1 cr.)
This course enables students to connect with their sense of inner confidence, creativity, and enthusiasm, which create a foundation for academic success. Students learn techniques that transform the quality of relationships, gain a new sense of satisfaction from everything done, as well as help others enhance their own self-esteem and put it to work in their own lives, especially while attending college. This course is sanctioned by the Kairos Foundation. Prerequisite: Must be concurrently enrolled at LCCC for at least three credit hours. (S/U grade only) Additional Fee.

HMDV 1370 Becoming a Love and Logic Parent
(1 cr.)
A course where parents and professionals learn skills enabling them to work more effectively with children. Students transfer theories of child psychology and communication into effective, practical techniques for raising children who can make responsible decisions.

HMSV 1010 Orientation to Human Services
(3 cr.)
Students explore the broad field of human service. Students also discuss the history, organizational structures, procedures, and legal and ethical issues in the human service system. Prerequisites: Completion of DVST 0520 or ENGL 0520 and ENGL 0700 or ENGL 1001 (or equivalent placement test scores).

HMSV 1060 Case Management
(3 cr.)
An introductory course focusing on observation, evaluation and record keeping in the human services field. Successful students demonstrate observation skills, analyze behavioral scales and checklists, and develop informal assessment tools. Students discuss objectivity in assessment, evaluation and documentation. Prerequisite: Completion of HMSV 1010 or permission of instructor.

HMSV 1110 Ethics for Helping Professions
(3 cr.)
Students examine historical and legal decisions that affect client rights and service provisions. Students discuss issues concerning due process, least restrictive environment, right to treatment, dual relationships, client advocacy and professional responsibility. Students apply professional standards while analyzing case studies. Prerequisite: Completion of HMSV 1010.

HMSV 1200 Field Experiences in Human Services I
(3 cr.)
An initial experience for human services majors to integrate previous academic learning in a supervised experience in a human services agency. Students meet in a seminar format in addition to the 90 hours spent working in an approved setting. Prerequisites: Completion of HMSV 1060 and HMSV 1110. (S/U grade only)

HMSV 2000 Human Services Administration
(3 cr.)
Students examine and acquire knowledge of human service agencies including organizational types, inter-organization relationships, and administrative structures and functions. Students discuss the agency role and function in the context of the services provided, clients served and program goals. Students analyze the function of supervision and the role of middle management personnel in the design and delivery of services to clients. Prerequisite: Completion of HMSV 1010.

HMSV 2110 Field Experiences in Human Services II
(4 cr.)
This course represents the culmination of preparation for an entry-level student majoring in human services. The course consists of supervised practice of human service knowledge, values, and skills learned in the classroom. In addition to meetings in a seminar setting, students complete 135 hours of field experience in a human services setting. Prerequisite: Completion of HMSV 1200. (S/U grade only)

Humanities

HUMN 1010 Introductory Humanities I
(3 cr.)
A survey of the Western humanities from ancient times through the early Renaissance. Topics include the visual arts, music, literature, and architecture in the context of history and social theory. Prerequisites: Completion of DVST 0520 or ENGL 0520 (or equivalent placement test scores), and ENGL 0700 or ENGL 1001.

HUMN 1020 Introductory Humanities II
(3 cr.)
A survey of the Western humanities from the Renaissance through the modern period. Topics include the visual arts, music, literature, and architecture in the context of history and social theory. Prerequisites: Completion of DVST 0520 or ENGL 0520 (or equivalent placement test scores), and ENGL 0700 or ENGL 1001.

HUMN 1080 Introduction to Women's Studies
(3 cr.)
An introduction to the key issues in women's studies. Students examine women's participation in and relationship to institutions of society. Processes and activities of women in such areas as labor force, art, literature, and politics are investigated. Prerequisites: Completion of DVST 0510 or ENGL 0510 and ENGL 0700 or ENGL 1001 (or equivalent placement test scores). (Cross-listed as SOC 1080.)

HUMN 2330 Contemporary and Multicultural Literature
(3 cr.)
This course investigates post-World War II literature in English, including fiction, poetry, and essays by ethnic writers. Students examine the “American Dream” as relevant to contemporary American life through discussion of such issues as pluralism, discrimination, class and cultural conflict, and gender issues. Prerequisites: Completion of DVST 0520 or ENGL 0520 (or equivalent placement test scores), and ENGL 1010. (Cross-listed as ENGL 2330.)
HUMN 2395
Mexican Civilization
This is a historical and cultural survey of Mexico to include the study of pre-Hispanic civilizations, the Spanish conquest, the independence movement, the Mexican Revolution, and the modern era. Students gain an appreciation of the development of Mexican culture through its history and artistical thought and the influence that Mexico has had upon the United States. Prerequisites: Completion of DVST 0510 or ENGL 0510 and DVST 0630 or ENGL 0630 (or equivalent placement test scores). (Cross-listed as HIST 2390.)

HUMN 2400
Study Tour: Mysteries of Mexico
A guided tour of Mexico to include exposure to contemporary Mexican culture and language as well as in-depth, on-site visits to historical pre-Hispanic ruins and colonial edifices. Students experience the Spanish language as it is currently spoken in Mexico. (Cross-listed as HIST 2400.)

HUMN 2461
Japanese Civilization
An exploration of Japanese civilization from earliest times with emphasis on modern-day society, including cultural aspects. Students gain insights into major historical periods and figures, art and cultural forms, religions and philosophies, and modern society and economy. (Cross-listed as HIST 2460.)

Independent Studies
A student may enroll for specialized study in most departments. Independent studies is closely supervised by the instructor, and courses must be pertinent to the student's goals.

- Courses numbered 1475 denote academic freshman-level work.
- Courses numbered 2475 denote academic sophomore-level work.
- Courses numbered 1975 denote vocational freshman-level work.
- Courses numbered 2975 denote vocational sophomore-level work.

Information Management

IMGT 2400
Introduction to Information Management
Students gain and demonstrate the knowledge and skills necessary to understand the role of information systems in managing organizations. Students apply information systems to make organizations more competitive and efficient. Specific topics include strategies and competitive opportunities, data warehouses, electronic commerce, information technology infrastructure, decision analysis, network basics and building e-portfolios. Prerequisite: Completion of COSC 1200 and 18 credit hours in business course work or permission of instructor.

Integrated Systems Technology

IST 1500
Introduction to Industrial Math
Students add, subtract, multiply, divide, and convert decimals, percentages, and fractions; and solve for unknown quantities with a focus on how they can use these mathematical principles and operations in an industrial setting. Students complete all course outcomes in an open-entry/open-exit, self-paced format. They must successfully complete this course or score at least 80 percent on the pretest before attempting any of the core courses in the Integrated Systems Technology certificate program. Additional Fee.

IST 1510
Introduction to Industrial Tools
Students identify, explain, and demonstrate the safe handling and use of industrial hand and power tools. They also select and install industrial fasteners. Students complete all course outcomes in an open-entry/open-exit, self-paced format. They must successfully complete this course or score at least 80 percent on the pretest before attempting any of the core courses for the Integrated Systems Technology certificate program. Additional Fee.

IST 1520
Introduction to Industrial Safety
Students identify sources of, organize, and describe safety rules, regulations, and practices related to job-site hazards, personal protective equipment, aerial work, hazard communication, and electrical safety. They complete all course outcomes in an open-entry/open-exit, self-paced format. This course is a core requirement of the Fundamentals of Integrated Systems Technology certificate program. Prerequisite: Completion of or score at least 80 percent on the pretest for IST 1500 and IST 1510. Additional Fee.

IST 1522
Introduction to Lifting and Crane Operations
Learners explore the safety rules, regulations, and practices related to rigging hardware, slings, hoists, and cranes. They complete all outcomes in an online environment.

IST 1530
Introduction to Effective Workplace Skills
Students interpret information and instructions, communicate effectively, assess personal strengths and development needs, and describe the concept of continuous learning in order to increase performance and improve personal success in today's workplace. They explore reading, writing, listening, speaking, computer, and relationship skills as well as discuss how to address workplace issues. They complete all course outcomes in an open-entry/open-exit, self-paced format. This course is a core requirement for the Integrated Systems Technology certificate program. Prerequisite: Completion of or score at least 80 percent on the pretest for IST 1500 and IST 1510. Additional Fee.

IST 1540
Introduction to Industrial Prints and Computer Aided Drafting
Students identify and explain the types of plans, prints, drawings, and specifications designed for industrial equipment and facilities. They also interpret and use AutoCAD software commands to create components, symbols, and dimensions. They complete all course outcomes in an open-entry/open-exit, self-paced format. This course is a core requirement for the Integrated Systems Technology certificate program. Prerequisite: Completion of or score of at least 80 percent on the pretest for IST 1500 and IST 1510.
IST 1551 (1 cr.)
**Industrial Piping Systems**
Students select, prepare, and install metal pipe, plastic pipe, and metal tubing. Participants must have a thorough understanding of the knowledge related to these skills before attempting to perform any maintenance actions. They complete all course outcomes in an open-entry/open-exit, self-paced format. Prerequisite: Completion of or score at least 80 percent on the pretest for IST 1550.

IST 1550 (1 cr.)
**Fundamentals of Industrial Piping Systems**
Students identify safety rules, regulations, selection criteria, preparation requirements, and maintenance actions for metal pipe, plastic pipe, metal tubing, and related equipment. They complete all course outcomes in an open-entry/open-exit, self-paced format. Students can concurrently enroll in IST 1551 to apply the topics of this course in a hands-on environment. Prerequisite: Completion of or score at least 80 percent on the pretest for IST 1500 and IST 1510.

IST 1600 (1 cr.)
**Fundamentals of Fluid Power**
Students identify and explain safety rules, regulations, precautions, test procedures, common components, and operating principles for hydraulic and pneumatic systems. They complete all course outcomes in an open-entry/open-exit, self-paced format. Students can concurrently enroll in IST 1601 to apply the topics of this course in a hands-on environment. Prerequisite: Completion of or score at least 80 percent on the pretest for IST 1500 and IST 1510. Additional Fee.

IST 1610 (1-2 cr.)
**Fluid Power**
Learners identify, explain, describe, and predict changes to hydraulic and pneumatic systems. In this course they increase their knowledge of the basic components found in industrial fluid-powered systems. They complete some outcomes in an online environment and can choose to add additional outcomes in a classroom environment. Participants can concurrently enroll in IST 1611 to apply the topics of this course in a hands-on environment. Additional Fee.

IST 1611 (1 cr.)
**Fundamentals of Fluid Power Circuits**
Learners demonstrate the safe use of fluid-powered components, the assembly of fluid-powered systems, the measurement of system characteristics, and the creation of system prints. Participants must have a thorough understanding of the knowledge related to these skills before attempting any maintenance actions. They complete all course competencies in a lab environment. Additional Fee.

IST 1650 (1 cr.)
**Fundamentals of Mechanical Drives**
Students identify and explain the safety rules, regulations, test procedures, installation, removal, and operation of belt drives, chain drives, and mechanical couplings. They complete all course outcomes in an open-entry/open-exit, self-paced format. Students can concurrently enroll in IST 1651 to apply the topics of this course in a hands-on environment. Prerequisite: Completion of or score at least 80 percent on the pretest for IST 1500, IST 1510, and IST 1520. Additional Fee.

IST 1651 (1 cr.)
**Mechanical Drive Installations**
Students install belt drives, install chain drives, and install/remove mechanical couplings. Participants must have a thorough understanding of the knowledge related to these skills before attempting to perform any maintenance actions. They complete all course outcomes in an open-entry/open-exit, self-paced format. Prerequisite: Completion of, concurrent enrollment in, or be able to score at least an 80 percent on the pretest for IST 1650. Additional Fee.

IST 1652 (1 cr.)
**Mechanical Drive Bearings**
Students identify and explain safety rules, regulations, designations, installation/removal techniques, and test procedures related to mechanical drive system bearings. They must have a firm understanding of the fundamental operating requirements for mechanical drives. They complete all course outcomes in an open-entry/open-exit, self-paced format. Students can concurrently enroll in IST 1653 to apply the topics of this course in a hands-on environment. Prerequisite: Completion of or score at least 80 percent on the pretest for IST 1650. Additional Fee.

IST 1653 (1 cr.)
**Mechanical Drive Bearing Installation and Removal**
Students install and remove plain, ball, and roller bearings. Participants must have a thorough understanding of the knowledge related to these skills before attempting to perform any maintenance actions. They complete all course outcomes in an open-entry/open-exit, self-paced format. Prerequisite: Completion of, concurrent enrollment in, or score at least 80 percent on the pretest for IST 1652. Additional Fee.

IST 1660 (1-2 cr.)
**Mechanical Drives**
Learners identify and explain the safety rules, regulations, test procedures, installation, removal and operation of belt drives, chain drives, mechanical couplings, shafts and bearings. Participants must have a thorough understanding of the knowledge related to these skills before attempting any maintenance actions. They complete some outcomes in an online environment and can choose to add additional outcomes in a classroom environment. Participants can concurrently enroll in IST 1661 to apply the topics of this course in a hands-on environment. Additional Fee.

IST 1661 (1 cr.)
**Mechanical Drive Assemblies**
Learners practice electrical and mechanical safety while installing belt drives, chain drives, gears, couplings, and bearings. Participants must have a thorough understanding of the knowledge related to these skills before attempting any maintenance actions. They complete all course competencies in a lab environment. Additional Fee.

IST 1700 (1 cr.)
**Fundamentals of DC Electricity**
Students identify and explain safety rules, regulations, concepts, and operating characteristics of direct current (DC) electrical circuits. They also identify the selection, inspection, use and maintenance requirements for common electrical test equipment. They complete all course outcomes in an open-entry/open-exit, self-paced format. Students can concurrently enroll in IST 1701 to apply the topics of this course in a hands-on environment. Prerequisite: Completion of or score at least 80 percent on the pretest for IST 1500 and IST 1510. Additional Fee.
IST 1702 Fundamentals of AC Electricity
Students identify and explain safety rules, regulations, concepts, operating characteristics, and testing procedures for common alternating current (AC) electrical circuits. They complete all course outcomes in an open-entry/open-exit, self-paced format. Students can concurrently enroll in IST 1703 to apply the topics of this course in a hands-on environment. Prerequisite: Completion of or score at least 80 percent on the pretest for IST 1700. Additional Fee.

IST 1710 DC Electricity
(1-2 cr.)
Learners identify and explain electrical safety rules, concepts, and operating characteristics of direct current (DC) electrical circuits. They also identify the operation and use of common electrical test equipment. They complete some outcomes in an online environment and can choose to add additional outcomes in a classroom environment. Participants can enroll in IST 1711 to apply the topics of this course in a hands-on environment. Additional Fee.

IST 1711 DC Electrical Circuits
(1 cr.)
Learners practice electrical safety, soldering, circuit calculation, and circuit measurement skills. They construct their own digital multimeter and use that meter to explore DC circuit operation. Participants must have a thorough understanding of the knowledge related to these skills before attempting any maintenance actions. They complete all course competencies in a lab environment. Additional Fee.

IST 1712 AC Electricity
(1-2 cr.)
Learners identify and explain electrical safety rules, concepts, and operating characteristics of alternating current (AC) electrical circuits. They also identify the operation and use of common electrical test equipment. They complete some outcomes in an online environment and can choose to add additional outcomes in a classroom environment. Participants can concurrently enroll in IST 1713 to apply the topics of this course in a hands-on environment. Additional Fee.

IST 1713 AC Electrical Circuits
(1 cr.)
Learners practice electrical safety, soldering, circuit calculation, and circuit measurement skills. They construct their own function generator and use it, along with other test equipment, to explore AC circuit operation. Participants must have a thorough understanding of the knowledge related to these skills before attempting any maintenance actions. They complete all course competencies in a hands-on environment. Additional Fee.

IST 1750 Fundamentals of Electric Motors
(1 cr.)
Learners identify and explain the basic principles of electric motors. Students identify and explain the operation and use of common electrical test equipment. They complete some outcomes in an online environment and can choose to add additional outcomes in a classroom environment. Participants can concurrently enroll in IST 1751 to apply the topics of this course in a hands-on environment. Prerequisite: Completion of or score at least 80 percent on the pretest for IST 1700 and IST 1702. Additional Fee.

IST 1751 Electric Motor Circuits
(1 cr.)
Learners configure, install, and operate direct current and alternating current motors. They also select, inspect, use, and maintain electrical test equipment. Participants must have a thorough understanding of the knowledge related to these skills before attempting to perform any maintenance actions. They complete all course outcomes in an open-entry/open-exit, self-paced format. Prerequisite: Completion of, concurrent enrollment in, or score at least 80 percent on the pretest for IST 1750. Additional Fee.

IST 1770 Motor Controls
(1-2 cr.)
Learners identify and explain safety rules, regulations, precautions, test procedures, common components, and operating principles for electrical motor controls. They complete some outcomes in an online environment and can choose to add additional outcomes in a classroom environment. Participants can concurrently enroll in IST 1771 to apply the topics of this course in a hands-on environment. Additional Fee.

IST 1771 Motor Control Circuits
(1 cr.)
Learners practice mechanical and electrical system safety, build motor control circuits, and measure the operating characteristics of those motor control circuits. Participants must have a thorough understanding of the knowledge related to these skills before attempting any maintenance actions. They complete all course outcomes in a lab environment. Additional Fee.

IST 1780 Electric Motors
(2 cr.)
Learners identify, explain, and classify the safety rules, regulations, and operating characteristics of direct current and alternating current motors as they learn to predict how changes affect how a motor operates. Learners complete all competencies in a combination of self-paced online materials and classroom activities. Students can concurrently enroll in IST 1781 to apply the topics of this course in a hands-on environment. Additional Fee.

IST 1781 Electric Motor Circuits
(1 cr.)
Learners configure, install, and operate direct current and alternating current motors. They also select, inspect, use, and maintain electrical test equipment. Participants must have a thorough understanding of the knowledge related to these skills before attempting to perform any maintenance actions. They complete all course outcomes in an industrial maintenance laboratory environment. Additional Fee.

IST 1800 Fundamentals of Programmable Logic Controllers
(1 cr.)
Students identify and explain the basic components, operating characteristics, common programming languages, input/output interfacing, and troubleshooting of programmable logic controllers (PLCs). They complete all course outcomes in an open-entry/open-exit, self-paced format. Students can concurrently enroll in IST 1801 to apply the topics of this course in a hands-on environment. Prerequisite: Completion of or score at least 80 percent on the pretest for IST 1500 and IST 1510. Additional Fee.
IST 1801 Programmable Logic Controller Circuits I
Students connect, operate, and troubleshoot programmable logic controllers (PLCs). They use PLC hardware and software to interface input and output modules with industrial system components while creating their own computer programs to control system operation. Participants must have a thorough understanding of the knowledge related to these skills before attempting to perform any maintenance actions. They complete all course outcomes in an open-entry/open-exit, self-paced format. Prerequisite: Completion of IST 1800. Additional Fee.

IST 1811 PLC Circuits I
Learners connect, program, and operate programmable logic controllers (PLCs). They use PLC hardware and software to interface input and output modules with industrial system components while creating their own computer programs to control system operation. Participants must have a thorough understanding of the knowledge related to these skills before attempting to perform any maintenance actions. They complete all course outcomes in a laboratory environment. Additional Fee.

IST 1850 Fundamentals of Cooling
Students identify the basic vocabulary, technician requirements, career progression, and common components for industrial cooling systems. They also identify and explain the key concepts of operation for these systems. They complete all course outcomes in an open-entry/open-exit, self-paced format. Prerequisite: Completion of or score at least 80 percent on the pretest for IST 1800. Additional Fee.

IST 1853 Refrigerant Leak Detection, Recovery, Evacuation and Charging
Students detect leaks on, recover refrigerant from, evacuate, and charge industrial cooling systems. They also select, inspect, use, and maintain refrigerant handling equipment. Participants must have a thorough understanding of the EPA refrigerant handling requirements related to these skills before attempting to perform any maintenance actions. They complete all course outcomes in an open-entry/open-exit, self-paced format. Prerequisite: Completion of IST 1852, or possess an EPA Universal refrigerant handling card. Additional Fee.

IST 1860 Fundamentals of Heating
Students identify and explain safety rules, regulations, terms, concepts, components, and operation cycle for forced-air furnaces. They also identify the maintenance requirements for oil, gas, and electric heating systems. Students complete all course outcomes in an open-entry/open-exit, self-paced format. Prerequisite: Completion of or concurrent enrollment in IST 1850, or possess an EPA Universal refrigerant handling card. Additional Fee.

French

LATN 1010 First Year Latin I
An introductory, college-level course focusing on vocabulary development and the fundamentals of grammatical structure, composition, and reading. Students demonstrate a command of basic grammatical structures and will be able to read and comprehend excerpts from ancient authors. Students also will be able to recognize the contributions of Latin to the English language while expanding their appreciation of Roman literature, thought, and expression. Prerequisite: Completion of DVST 0520 or ENGL 0520 (or equivalent placement test score).

LATN 1020 First Year Latin II
A continuation of an introductory, college-level course focusing on vocabulary development and the fundamentals of grammatical structure, composition, and reading. Students demonstrate a command of more complex grammatical structures and will be able to read and comprehend excerpts from ancient authors. Students also will be able to recognize the contributions of Latin to the English language while expanding their appreciation of Roman literature, thought, and expression. Prerequisite: Completion of LATN 1010.

Japanese

JAPN 1010 First Year Japanese I
An introductory course focusing on conversation, vocabulary development and the fundamentals of grammatical structure, composition and reading. Students develop a command of basic conversational Japanese and learn to read and comprehend basic Japanese scripts, focusing on everyday words, phrases and expressions. Prerequisite: Completion of LATN 1010.

JAPN 1020 First Year Japanese II
This course continues focusing on useful everyday conversations, vocabulary development, and the fundamentals of grammatical structure, composition, and reading. Students demonstrate a command of conversational Japanese as well as use of Japanese scripts with an emphasis on everyday words, phrases, and expressions. Prerequisite: Completion of JAPN 1010.

Language – Linguistics

LANG 2400 Applied Foreign Language
A practical course in conversational language such as Spanish, French, and the like for those wanting to learn the basics without the usual intensity of study. Does NOT apply to program language requirements, may NOT transfer to other schools. May be repeated for up to 6 hours credit.
LATN 2030  Second Year Latin  
(4 cr.)  
An intermediate, college-level course focusing on the review and mastery of major grammatical structures of the language, as well as the refinement of basic skills through readings based on works by Latin writers. Students demonstrate a command of complex grammar structures and idiomatic expressions, translate passages of increasing difficulty, and interpret Latin poetry and prose in cultural context. In addition, students develop a recognition of the contributions of Latin to the English language while expanding their appreciation of Roman literature, thought, and expression. Prerequisite: Completion of LATN 1020.

LATN 2110  Vergil, The Aeneid I  
(4 cr.)  
This course is designed to cover the second-year sequence in Latin within one semester, and thus prepares students for upper division classes the following semester. Students review syntactical principles, and they acquire rapid reading ability through the study of Vergil’s Aeneid. Students survey the main interpretative issues surrounding Vergil’s Aeneid. In addition, students develop an understanding and appreciation of the formal structure of the Latin language and also the ability to scan and read Latin hexameters out loud. Prerequisite: Completion of LATN 2030.

Library Science

LIBS 2280  Literature for Children  
(3 cr.)  
Students read and analyze children’s literature and demonstrate its use to teach all academic subjects. Students evaluate works within the genres of children’s literature and report on, develop, and model the use of children’s books in elementary classrooms. Prerequisite: Concurrent enrollment in or completion of ENGL 1020.

Management

MGT 1000  Introduction to Supervision  
(3 cr.)  
Students acquire techniques to improve or establish themselves as first-line supervisors. The student will understand and be able to apply basic management principles in solving problems encountered by first-line supervisors. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

MGT 1010  Employment Orientation I  
(1 cr.)  
A preparation for the job search and suggestions for career progression. Included are current employment market information, resumes, employment applications, and interviews.

MGT 1011  Employment Orientation II  
(1 cr.)  
This is a continuation of MGT 1010. Topics include goal setting, stress management, sexual harassment, workplace politics, self-esteem, professional image, and other attitudes and behavior necessary for success in the workplace. Prerequisite: Completion of MGT 1010.

MGT 1200  Human Resources Management  
(3 cr.)  
Students obtain knowledge of the components of human resource management. Major areas of focus will be human behavior, human resource planning, job analysis and design, employee assistance programs, wage and salary administration, performance appraisal system, collective bargaining, and labor law. Prerequisite: Completion of MGT 1000 or MGT 2100.

MGT 1500  Leadership Essentials  
(3 cr.)  
Students develop performance-based competencies and skills needed to prepare for leadership positions in today’s workplace. Topics explored include leadership communication, conflict resolution, employee and self-development, change management, coaching, managing performance problems, and team building. Students develop action plans for transitioning the skills discussed during class into the workplace. (This course is not intended for transfer.)

MGT 1501  Practical Workplace Management  
(3 cr.)  
Students gain skills focused on creating efficiency and productivity in the workplace. Students examine and apply tools that support time management principles, project management concepts, and effective performance processes. Students utilize flowcharts, check sheets, cause-and-effect diagrams, pareto charts, and interrelationship diagrams to understand, improve, and measure processes. (This course is not intended for transfer.)

MGT 1502  Career Assessment and Portfolio: Creating the Total Package  
(3 cr.)  
Students explore skills and tools demanded for successfully securing employment and/or advancing into leadership roles. Students assess career skills and certifications in order to develop an in-depth and comprehensive career portfolio, which cumulates all relevant work experiences and additional training gained during enrollment in this program. Students are evaluated on the thoroughness with which the portfolio has been compiled, assembled, and organized. Career portfolios are assessed by members of a learning assessment team. (This course is not intended for transfer.)

MGT 2100  Principles of Management  
(3 cr.)  
Students acquire knowledge of the theory and practice of management. Topics include individual and small group behavior, design and structure of organizations, the relationship between the organization and its environment, ethics, communication, and international management. Students learn to apply quantitative skills in examining management processes. Prerequisite: Completion of BADM 1000.

MGT 2460  Topics in Business and Management  
(1-4 cr.)  
Students will be provided an opportunity to develop knowledge and skills necessary for personal and professional improvement in business and management. Prepared topics include business decision-making models for use with PCs, small business IRS tax planning, entrepreneur’s financial plan, labor laws, performance appraisal system, and employee development programs. May be repeated for up to six hours of credit. Prerequisite: Permission of instructor.

MGT 2475  Management Internship  
(1-6 cr.)  
Students apply learned theory under the supervision of a professional manager in a cooperating organization. The student, professional manager, and advisor will develop a project with appropriate educational objectives for the student to apply his or her knowledge in completing an actual business management project. One to six semester hours of credit will be granted based on the developed Internship Action Plan. (May be repeated for up to six credit hours.) Prerequisite: Advisor approval.
Marketing

MKT 1000 (3 cr.)
Sales
Students acquire skills and knowledge necessary to achieve success in the sales profession. Students develop knowledge and an understanding of consumer behavior and the fundamentals of persuasive selling. Major emphasis will be given to the need-satisfaction sales approach. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

MKT 1100 (3 cr.)
Retailing
Students acquire an understanding of the principles and practices of retail merchandising. The course will provide the student an opportunity to develop skills and knowledge for merchandise management, pricing, sales promotion, customer relations, and retail controls. Prerequisite: Completion of BADM 1000 or equivalent preparation.

MKT 1300 (3 cr.)
Advertising
Students acquire knowledge of the four elements of the promotional blend. Students understand the role of advertising relative to a firm's profit or nonprofit marketing strategy. The focus will be on market segment identification, consumer appeals, media planning, and promotion budgets. Prerequisite: Completion of BADM 1000 or equivalent preparation.

MKT 2100 (3 cr.)
Principles of Marketing
An introduction to marketing with emphasis on the principles, practices, and problems of the total marketing process. Prerequisite: Completion of BADM 1000.

Mass Media/Multimedia

MMMM 1000 (3 cr.)
Introduction to Mass Media
A general survey course of the mass media and their role in modern society. Topics include books, magazines, newspapers, film, radio, recordings, television, new electronic media, advertising, public relations, regulation and law, and ethics and social responsibility. Students trace historical development of each medium and analyze its impact upon American culture. Prerequisites: Completion of DVST 0510 or ENGL 0510 and DVST 0630 or ENGL 0630 (or equivalent placement test scores).

MMMM 1111 (3 cr.)
Journalistic Writing
A study of the form, structure, and style of writing for the mass media. Topics include the Associated Press Stylebook, copy editing symbols, word usage, concise and precise sentence structure, basic news leads, alternative news leads, and inverted pyramid style. Extensive practice in grammar and punctuation. An excellent course for professionals who want to update or refresh their skills. Prerequisites: Completion of DVST 0510 or ENGL 0510 and ENGL 0700 or ENGL 1001 (or equivalent placement test scores), some keyboarding skills required.

MMMM 1370 (3 cr.)
Publications Production I
This course prepares students to assume the responsibility of publishing the college's four-color newspaper four times a semester. Students are expected to write news and feature stories; sell effective advertising; follow a dummy to design pages using desktop publishing, to meet deadlines, perform under pressure, and work in teams; and to become knowledgeable about journalism ethics and decision-making.

MMMM 1371 (3 cr.)
Multimedia Productions I
Students develop the basic skill set to contribute to publishing the college's newspaper content in a weekly online format. Students write breaking news and feature stories quoting at least one source, recognizing appropriate style for online publishing, copyedit their own stories; sell effective advertising, tracking contacts with potential advertisers; and design pages using Web page design software.

MMMM 1375 (3 cr.)
Publications Production II
This course prepares students to assume the responsibility of publishing the college's four-color newspaper four times a semester. Students are expected to originate and write multiple-source stories; to make editorial judgments about copy, to scale photographs and illustrations; to design effective advertising page; to meet deadlines, perform under pressure, and work in teams; and to become knowledgeable about journalism ethics and decision-making. Prerequisite: Completion of MMMM 1370.

MMMM 1376 (3 cr.)
Multimedia Productions II
Students continue to develop the basic skill set to contribute to publishing the college's newspaper content in a weekly online format. Students write breaking news and feature stories, interviewing at least two sources for each story, copyedit their own stories as well as other staffers, demonstrating a strong understanding of copy editor's marks, interview an advertising client and execute advertising to their satisfaction; design pages using Web page design software and HTML and upload them to the site; prepare photos for use on the Web; record audio for audio clips; and edit audio. Prerequisite: Completion of MMMM 1371.

MMMM 2100 (3 cr.)
Reporting and Newswriting
Intensive practice in gathering and writing news. Topics include journalistic jargon, news judgment, interviewing techniques, law and ethics, computer-assisted reporting, and careers. Students write the following kinds of stories: news, features, roundups, sidebars, follow-ups, obituaries, legislative, statistical, controversial, speeches, meetings, brights, public affairs, news conference, and public relations releases. Prerequisites: Completion of DVST 0510 or ENGL 0510 and DVST 0630 or ENGL 0630 (or equivalent placement test scores), MMMM 1111, and some keyboarding skills.

MMMM 2222 (3 cr.)
Desktop Audio/Video Production
Students work in a desktop audio and video production environment learning the techniques of traditional audio and video production and applying them to a modern, small staff digital production studio. Students also learn techniques and acquire production skills related to production for MPEG compression and bandwidth-restricted delivery environments. Working as a production team, students create content for multimedia delivery. Keyboarding skills and knowledge of Windows is recommended.
MMMM 2224  
Digital Video Editing Basics  
(1 cr.)
This course uses entry-level digital video editing software that is more user friendly and more automated, allowing students to focus more on the creative rather than technical aspects of creating a video. Students practice basic editing techniques: digitize, import, and export files; manipulate video and audio files and still images; and compose an original video presentation that is aesthetically pleasing and communicates clearly to an audience. This class is also suitable for the intermediate editor as well as professionals who want to distribute video on the Internet, into an MP3, or through a DVD. Consumers who want to archive VHS tapes would benefit from this course. Prerequisite: A working knowledge of computers, including copying, moving, and deleting files.

MMMM 2310  
Desktop Publishing  
(3 cr.)
Desktop publishing (DTP) merges the fields of writing and editing, typography, photography and graphics, layout and design, and printing. Using industry-standard desktop publishing software, students create a variety of practical publications as well as their own original documents. Students work with text and graphic frames, manipulate text formatting, incorporate process and spot colors, develop tables and use tabs properly, create graphics and work with transparency, and package and export documents for commercial printing.

MMMM 2320  
Advanced Desktop Publishing  
(3 cr.)
In this advanced DTP course, students focus on creating longer and more complicated documents using industry-standard desktop publishing software. Students develop multiple master pages and templates; create a table of contents and index for a book; prepare color separations; write headlines and photo cutlines; and apply principles of color theory, good design, and proper typography. Projects include advertisements, logos, fliers, business forms, informational graphics, newsletters, newspapers, and books. Prerequisite: Completion of MMMM 2310. Additional Fee.

MMMM 2325  
Computer Graphics  
(3 cr.)
This course introduces students to a sophisticated computer graphics software package. Using a variety of electronic tools, students master creating, drawing, editing, and manipulating objects. Students incorporate color and typography, particularly special effects, into a variety of design projects and establish a relationship of computer-generated art to other software applications, such as multimedia, digital photography, and desktop publishing. Prerequisites: Keyboarding required. Windows knowledge recommended. Additional Fee.

MMMM 2326  
Interactive Media  
(3 cr.)
Students create interactive media projects for use in multimedia presentations, television productions, and Web pages. Students integrate audio, video, animation, and interactive symbols such as buttons to create digital portfolios, slideshows, quizzes, forms, galleries, and games. Windows knowledge is recommended. Additional Fee.

MMMM 2327  
3D Computer Animation  
(3 cr.)
Students create 3D computer animation for use in multimedia and television productions. Students practice techniques in object modeling and texturing and develop skills in scene composition and layout. Examples of 3D animation will be explored in film, television and multimedia. Students work on the same animation systems used in major production studios. Additional Fee.

MMMM 2370  
Publications Production III  
(3 cr.)
This course prepares students to assume the responsibility of publishing the college’s four-color newspaper four times a semester. Students are expected to originate and write investigative stories; to review all copy for libel; to apply standards of good taste to publication photographs and graphics; to develop conflict resolution skills; to coordinate the overall publication design using desktop publishing; to work with a professional printer; to meet deadlines, perform under pressure, and work in teams; and to become knowledgeable about journalism ethics and decision-making. Prerequisite: Completion of MMMM 2375.

MMMM 2371  
Multimedia Productions III  
(3 cr.)
Students take a lead role as an editor in publishing the college’s newspaper content in a weekly online format. Students write stories, taking additional responsibility to ensure each story is enriched with multimedia components; copyedit stories and write meaningful headlines and subheads; develop a marketing campaign for a new advertiser; design pages using Web page design software and HTML, including taking responsibility for one or more of the main content pages; create galleries and audio slideshows; and record video for clips. Prerequisite: Completion of MMMM 1376.

MMMM 2375  
Publications Production IV  
(3 cr.)
This course prepares students to assume the responsibility of publishing the college’s four-color newspaper four times a semester. Students are expected to originate and write investigative stories; to review all copy for libel; to apply standards of good taste to publication photographs and graphics; to develop conflict resolution skills; to coordinate the overall publication design using desktop publishing; to work with a professional printer; to meet deadlines, perform under pressure, and work in teams; and to become knowledgeable about journalism ethics and decision-making. Prerequisite: Completion of MMMM 2370.

MMMM 2376  
Multimedia Productions IV  
(3 cr.)
Students take a lead role as an editor in publishing the college’s newspaper content in a weekly online format. Students write breaking news, feature stories, and a weekly blog; copyedit and approve all content prior to posting; make assignments to junior staff members and assign deadline dates; organize publication advertising and resolve conflicts with advertisers, design pages using Web page design software and HTML, develop templates using Cascading Style Sheets (CSS); troubleshoot coding issues; and edit video for narrowcasting. Prerequisite: Completion of MMMM 2371.
MMMM 2400
Introduction to Photography
A quality-oriented introductory photography course emphasizing artistic and journalistic methods. The course offers students hands-on experiences with shooting, film processing, printing, mounting for exhibition, and preparation for publication. Students pay for black-and-white film and paper; a 35mm manual single-lens reflex (SLR) camera is also required. A limited number of college cameras may be available. Prerequisites: Completion of MMMM 2400 or instructor approval. Additional Fee.

MMMM 2401
Fiber-base Printing
An intermediate photography course building on the lessons of MMMM 2400—Introduction to Photography. Students produce black and white archival negatives and prints illustrating formative and comparative qualities of light. Prerequisite: Completion of MMMM 2400 or permission of instructor. Additional Fee.

MMMM 2402
Flash Photography
An intermediate photography course building on the lessons of MMMM 2400—Introduction to Photography. Students produce black and white prints and slide sequences using the basic principles of flash photography, including but not limited to, auto and manual exposures, the Guide Number Formula, on-camera flash, bounce flash or off-camera flash, fill flash, and painting with flash. Prerequisite: Completion of MMMM 2400 or permission of instructor. Additional Fee.

MMMM 2403
Special Effects Photography
An intermediate photography course building on the lessons of MMMM 2400—Introduction to Photography. Students produce a wide variety of special effects prints and slides using the effects of color temperatures of light on transparency (slide) films, hand-coloring of black and white prints, color printing techniques, and toning. Prerequisite: Completion of MMMM 2400 or permission of instructor. Additional Fee.

MMMM 2405
Darkroom Production
In Darkroom Production, experienced students work in the darkroom on an individual basis, receiving periodic feedback from the instructor. Each student sets goals for the semester that might include improvement in printing technique, broadened understanding of camera operations, and/or enrichment of a special project or personal body of work. Prerequisite: Completion of MMMM 2400 or instructor approval. Additional Fee.

MMMM 2406
Digital Camera Basics I
Students shoot photographs with a digital camera, experimenting with zoom lenses, exposure modes, flash and image quality. Students develop their skills in composing and taking photographs. Then they use a basic image editing software program to crop, manipulate and improve their images. Students also prepare images for printing and e-mail distribution. Prerequisites: A digital camera and a working knowledge of computers, including e-mail, Web browsing, and copying, moving, and deleting files. Additional Fee.

MMMM 2407
Digital Camera Basics II
In this continuation course, students demonstrate their skills in setting advanced options on a digital camera and photographing close-up and small objects. They also develop additional skills in a basic image editing software program to convert images to grayscale, duotone, and other “false” colors and to create montages and panoramic photos. Then using an image management software program, students organize, find, and view their photographs. Prerequisites: Completion of MMMM 2406, and students need a working knowledge of computers, including e-mail, Web browsing, and copying, moving, and deleting files. Additional Fee.

MMMM 2408
Digital Photography
A course designed to explore the similarities and differences between conventional and digital photography (DP). Students identify and apply the various components of DP, including Adobe Photoshop, a digital image processing software package. Using the software, they access appropriate images for enhancement and creative manipulation and process images for media presentations, desktop publishing, and fine art. They utilize different media for archival storage and distribution and produce various hard copy outputs. Prerequisites: Keyboarding skills and Windows knowledge required. Additional Fee.

MMMM 2410
Introduction to Multimedia
Students create multimedia projects from concept to delivery on mobile media and the Internet. Students design informative, interactive multimedia presentations that integrate text, graphics, video, audio, and compelling storytelling. Taking advantage of technologies now used by many businesses to generate sales such as blogs, podcasts, social media, and other new media, students develop a rich user experience and build a community for their target markets. Keyboarding skills and Windows knowledge are recommended.

MMMM 2491
Topics in Journalism
A course offering a variety of topics in journalism such as advertising, layout, and public relations. A maximum of 12 hours may be applied toward a degree in journalism. Prerequisites: Completion of DVST 0510 or ENGL 0510 and ENGL 0700 or ENGL 1001 (or equivalent placement test scores).

Mathematics

MATH 0900
Pre-Algebra
Students acquire knowledge of addition, subtraction, multiplication, and division of whole numbers, fractions, and decimals; averages; exponents; percents; ratios and proportions; weights and measures including metric system; signed numbers; and introductory geometry and algebra. Prerequisite: Math placement score in Level B.
MATH 0915 (5 cr.)
Accelerated Pre- and Elementary Algebra
A course designed for students needing a review of basic arithmetic and algebraic skills in preparation for enrollment in courses such as Algebra Review, Problem Solving, or Theory of Arithmetic. Successful students will be able to perform a variety of mathematical operations extending from the use of whole numbers, fractions, decimals, percents to solving linear equations and factoring polynomials. This accelerated course is self-paced and is a combination of MATH 0900 and MATH 0920. Prerequisite: Permission of Albany County Campus math department.

MATH 0920 (3 cr.)
Elementary Algebra
This course involves the study of real numbers, algebraic expressions, and algebraic linear equations. Successful students acquire knowledge and develop skills that enable them to perform operations with signed numbers, simplify algebraic expressions, solve and graph linear equations and inequalities, evaluate expressions with exponents, and evaluate and factor polynomials. Students may not receive credit for both MATH 0920 and MATH 0921. Prerequisites: Completion of MATH 0920 or MATH 0921. Required MPE score or ACT score or a grade of C or better (or equivalent placement test scores). Additional Fee.

MATH 0921 (3 cr.)
Basics of Algebra
This course involves a study of signed numbers, algebraic expressions, and algebraic equations. Successful students acquire knowledge and develop skills that enable them to perform operations with real numbers, simplify algebraic expressions, solve linear and quadratic equations involving factoring, graph linear equations and inequalities, simplify radical expressions, and solve radical equations and quadratic equations using the quadratic formula. Students may not receive credit for both MATH 0920 and MATH 0921. Prerequisite: Required MPE score or ACT score or a grade of C or better in MATH 0900.

MATH 0925 (3 cr.)
Algebra Review
A course designed for those students needing a review of their algebraic skills specifically for the purpose of enrolling in the pre-calculus course at the University of Wyoming. The content includes topics from fundamental operations through quadratic and simultaneous equations. Students may have completed MATH 0920 or MATH 0921 prior to taking this course.

MATH 0930 (3 cr.)
Intermediate Algebra
This course involves the study of real numbers, algebraic expressions, and algebraic equations. Successful students acquire knowledge and develop skills that enable them to evaluate and simplify rational and radical expressions, solve rational and radical equations, solve quadratic equations, solve systems of equations, identify functions, and use function notation. Prerequisite: Completion of MATH 0920 or MATH 0921 (or equivalent placement test score). Additional Fee.

MATH 1000 (3 cr.)
Problem Solving
This course involves a study of the methods, processes, and strategies of problem solving. Successful students acquire knowledge and develop skills that enable them to formulate, analyze, and interpret quantitative arguments in a variety of settings, use a hand-held calculator in problem solving, and solve application problems in a variety of real world situations. Prerequisite: Completion of MATH 0920 or MATH 0921 (or equivalent placement test score). MATH 1000 will not meet a prerequisite for MATH 1400.

MATH 1100 (3 cr.)
Numbers and Operations for Elementary School Teachers
This is the first of a three-course sequence involving a study of the mathematics necessary for teaching basic arithmetic to elementary school students. Successful students demonstrate knowledge of place value, acquire knowledge and develop skills in the four basic arithmetic operations using both standard and alternative algorithms for whole numbers, fractions, and decimals; and apply logic and problem-solving strategies to deepen their understanding of math concepts and content of elementary school curriculum. Students must be concurrently enrolled in EDEL 1410. Prerequisites: Completion of MATH 0920 with a grade of C or better (or equivalent placement test score) or Level 2 on the Math Placement Exam or a Math ACT of 21 or Math SAT of 600.

MATH 1105 (3 cr.)
Data, Probability, and Algebra for Elementary School Teachers
This is the second of a three-course sequence involving a study of the mathematics necessary for teaching basic arithmetic to elementary school students. Successful students demonstrate knowledge of appropriate statistical methods, representations, graphical displays, and technological tools to analyze and draw conclusions using data. Using elementary probability theory, they predict the chance of future events. Using algebra, they generalize and communicate patterns. Prerequisite: Completion of MATH 1100 with a grade of C or better.

MATH 1400 (4 cr.)
Pre-Calculus Algebra
This course involves the study of elementary functions by numeric, graphic, and symbolic methods. Successful students acquire knowledge and develop skills to investigate linear, quadratic, polynomial, rational, exponential and logarithmic functions; solve equations by graphing; and understand and use function notation. Students receiving credit for MATH 1450 may not receive credit for this course. A specific calculator is required for this course. See a math instructor for acceptable models. Prerequisites: Completion of DVST 0510 or ENGL 0510 and MATH 0900 or MATH 0900 (or equivalent placement test scores).

MATH 1405 (3 cr.)
Pre-Calculus Trigonometry
This course involves a study of trigonometric functions and their applications. Successful students acquire knowledge and develop skills that enable them to define, evaluate, and graph trigonometric functions and their inverses; solve trigonometric equations; solve triangles; solve applications using vectors; and represent complex numbers in trigonometric form. Students receiving credit for MATH 1450 may not receive credit for this course. A specific calculator is required for this course. See a math instructor for acceptable models. Prerequisite: Completion of MATH 1400 (or equivalent).
### MATH 1450 (5 cr.) Pre-Calculus Algebra/Trigonometry
This course involves a study of algebraic and trigonometric equations and functions and their applications. Successful students acquire knowledge and develop skills that enable them to identify functions and use functions notation; investigate polynomial, rational, exponential, and logarithmic functions; solve equations using numeric, graphic and analytic methods; define, evaluate, and graph trigonometric functions and their inverses; solve triangles; solve applications using vectors; and represent complex numbers in trigonometric form. This is an accelerated course including the information from both MATH 1400 and MATH 1405. This course will replace credit for MATH 1400 and/or MATH 1405. A specific calculator is required for this course. See a math instructor for acceptable models. Prerequisite: Completion of MATH 1105 or equivalent.

### MATH 1510 (3 cr.) Technical Mathematics I
This course involves the study of the use of basic mathematical principles in work-related situations. Successful students acquire skills in basic math, algebra, problem-solving techniques, measurement systems, basic geometry ratio and proportion, and graphs, charts, and tables. Prerequisites: Completion of DVST 0510 or ENGL 0510 and DVST 0900 or MATH 0900 (or equivalent placement test scores).

### MATH 2120 (3 cr.) Geometry and Measurement for Elementary School Teachers
This is the third of a three-course sequence involving a study of the mathematics necessary for teaching basic arithmetic to elementary school students. In this course students develop spatial reasoning. Successful students demonstrate knowledge of geometric objects and their relationships and use geometry, measurement, and estimation in problem solving. Students must be concurrently enrolled in EDEL 2410. Prerequisite: Completion of MATH 1105 with a grade of C or better.

### MATH 2200 (5 cr.) Calculus I
This course involves a study of elementary functions, the derivative, and the integral. Successful students acquire knowledge and develop skills that enable them to find derivatives numerically, graphically, and analytically; use the derivative to solve application problems; and find the integral numerically, graphically, and in some cases, analytically. A specific calculator is required for this course. See a math instructor for acceptable models. Prerequisite: Completion of MATH 1405 or equivalent.

### MATH 2205 (5 cr.) Calculus II
This course involves a study of integration and infinite series. Successful students acquire knowledge and develop skills that enable them to use various integration techniques; solve application problems using integration; and approximate elementary functions using Taylor and Fourier Series. A specific calculator is required for this course. See a math instructor for acceptable models. Prerequisite: Completion of MATH 2200 or equivalent.

### MATH 2210 (5 cr.) Calculus III
This course involves a study of vectors, vector fields, and differential and integral calculus of functions of several variables. Successful students acquire knowledge and develop skills that enable them to differentiate and integrate multivariate functions; analyze the equations of lines, planes, and some solid figures in space; use two- and three-dimensional vectors; use vector-valued functions in solving application problems; and apply vector fields to various application problems. A specific calculator is required for this course. See a math instructor for acceptable models. Prerequisite: Completion of MATH 2205.

### MATH 2250 (3 cr.) Elementary Linear Algebra
This course involves a study of matrices, systems of linear equations, linear transformations, and vector spaces. Successful students acquire knowledge and develop skills which enable them to perform matrix operations, solve systems of equations using Gaussian elimination, find a basis for a given set of vectors, orthogonalize a matrix, find the eigenvalues and eigenvectors for a given matrix, and solve applications. A specific calculator is required for this course. See a math instructor for acceptable models. Prerequisite: Completion of MATH 2200.

### MATH 2310 (3 cr.) Applied Differential Equations
This course involves a study of ordinary differential equations and integral transforms. Successful students acquire knowledge and develop skills that enable them to solve first order differential equations with exact solutions, solve higher order linear differential equations using Laplace transforms, and construct mathematical models and solve application problems. A specific calculator is required for this course. See a math instructor for acceptable models. Prerequisite: Completion of MATH 2205.

### MATH 2350 (4 cr.) Business Calculus I
This course involves the study of calculus through business, economic, and social applications. Successful students acquire knowledge and develop skills that enable them to apply unique modeling approaches to the material throughout the course. This course is non-algebraic in nature, and the development of the conceptual understanding of calculus is data driven and technology based. A specific calculator is required for this course. See a math instructor for acceptable models. Prerequisite: Completion of MATH 1400 or equivalent.

### MATH 2355 (4 cr.) Mathematical Applications for Business
This course involves the study of calculus through business, economic, and social applications. Successful students acquire knowledge and develop skills in solving linear equations and least square regression, matrices, linear programming, finance (including simple and compound interest, inflation and population growth, annuities, and amortization), sets and counting problems, probability and statistics, and other selected topics. A specific calculator is required for this course. See a math instructor for acceptable models. Prerequisite: Completion of MATH 1400 or equivalent.
Molecular Biology

MOLB 2210 (4 cr.)
General Microbiology
A study of microscopic organisms. Students compare and contrast microbial structures, categorizing microbes according to their physiological and metabolic properties. Students also examine the ecological role of microbes and utilize microbes to study genetic processes and develop microbial laboratory techniques while utilizing aseptic and basic lab safety procedures. One field trip is required. Typically, this course has three hours of lecture and three hours of laboratory per week. Prerequisite: Completion of BIOL 1010. Additional Fee.

MOLB 2220 (4 cr.)
Pathogenic Microbiology
A study of pathogenic bacteria, viruses, rickettsiae, and fungi in human and higher vertebrates. Students demonstrate knowledge of infectious processes, host resistance, mechanisms of transmission, virulence, chemotherapy, methods of detection and isolation, epidemiology, and the impact of pathogenic microorganisms on society. Typically, this course has three hours of lecture and three hours of laboratory per week. Prerequisite: Completion of one college-level biology, molecular biology, or zoology course. Additional Fee.

Music

MUSC 1000 (3 cr.)
Introduction to Music
An introductory course emphasizing the fundamentals of music, music literature, and composers of all historical periods. Aids to intelligent listening are stressed. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

MUSC 1010 (3 cr.)
Music Fundamentals
In this course, students acquire the basic skills of reading and writing music, including standard music notation, all major and minor key signatures, scales, harmony, and major and minor keys. Prior knowledge of music theory is not required. The course is open to non-music majors.

MUSC 1022 (3 cr.)
Performance Sound Technology I
Students learn how to utilize sound reinforcement equipment to amplify live performances. Students collaborate by helping each other find solutions for various set-up and amplification challenges. Class is open to LCCC students and people in the community. This is the first of two courses designed for students interested in sound amplification, recording, editing, and production.

MUSC 1030 (3 cr.)
Written Theory I
First semester of a four-semester series on the fundamentals of music and written harmony. Students demonstrate an understanding of notation, intervals, major and minor scales, circle of fifths, key signatures, rhythm, major and minor triads in four-part harmony, and cadences. Corequisite: Must be taken concurrently with MUSC 1035.

MUSC 1035 (1 cr.)
Aural Theory I
First semester of a four-semester series. Students develop ear training and sight-singing skills. Students hear and write melodic, harmonic, and rhythmic measures from dictation and sight sing by solfege. Corequisite: Must be taken concurrently with MUSC 1030.

MUSC 1040 (3 cr.)
Written Theory II
A continuation of MUSC 1030. Topics include principles of late 18th century harmonic progression, modulation, four-voice composition, classic period harmony, and forms. Prerequisites: Completion of MUSC 1030 and MUSC 1035. Corequisite: Must be taken concurrently with MUSC 1045.

MUSC 1045 (1 cr.)
Aural Theory II
A continuation of MUSC 1035. Students develop ear training and sight-singing skills. Students hear and write more complicated diatonic and harmonic measures from dictation and sight sing disjunct and minor mode melodies. Prerequisites: Completion of MUSC 1030 and MUSC 1035. Corequisite: Must be taken concurrently with MUSC 1040.

MUSC 1051 (1 cr.)
Applied Music: Vocal and Instrumental
Private lessons in voice, piano, guitar, woodwind, brass, percussion, and string instruments with an approved college instructor. The student pays an additional lesson fee. Prerequisite: Approval of instructor. Additional Fee.

MUSC 1052 (1 cr.)
Applied Music: Vocal and Instrumental
A continuation of MUSC 1051. Private lessons in voice, piano, guitar, woodwind, brass, percussion, and string instruments with an approved college instructor. The student pays an additional lesson fee. Prerequisites: Completion of MUSC 1051 and instructor approval. Additional Fee.

MUSC 1150 (1 cr.)
Guitar I
A course providing basic instruction in folk and classical techniques on the guitar. Students acquire skills in chord progressions, major scales, strum and pick patterns, note reading, and arpeggio picking. Different styles of music are introduced through class presentations and recordings. Students perform selections in class. Prior music knowledge is unnecessary, however, students must provide their own guitars. May be repeated twice for credit.

MUSC 1270 (2 cr.)
Voice I
Group instruction in singing for the nonmajor and the music major. Students gain knowledge of the basic concepts of vocal function and singing, including care of the voice, breathing, tone, diction, presentation, interpretation, and exercise practice.

MUSC 1290 (1 cr.)
Elementary Class Piano I
The first course of a four-semester sequence designed for the beginner. Students acquire and demonstrate skill in note reading, interpreting meter signatures and the corresponding rhythms found in that meter, harmonizing of melodies, sight reading, and improvisation. Students develop finger control, hand independence, and pedal technique. Prerequisite: instructor approval.

MUSC 1295 (1 cr.)
Elementary Class Piano II
A continuation of MUSC 1290. Students further develop finger control and hand independence, hand-over-hand arpeggios, reading notes and rhythm patterns, sight reading, transposition, improvisation, harmonization, and repertoire. In addition, students acquire and demonstrate skills in harmonizing using I, IV, and V chords; harmonization using prescribed accompaniment patterns; prescribed chord progressions; and major scale, two octaves, hands together. Prerequisite: Completion of MUSC 1290 or successful completion of the final exam requirements for MUSC 1290, and instructor approval.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 1380</td>
<td>Wind Symphony</td>
<td>1 cr.</td>
<td>In this course, students participate in group instruction and performance on various instruments in an ensemble setting. Students gain an appreciation of wind ensemble music through performing and listening to musical literature, focusing on original works for wind instruments from the 20th century. Some instruments are provided. May be repeated for up to 8 credit hours. Prerequisites: Prior wind, brass, or percussion experience required.</td>
</tr>
<tr>
<td>MUSC 1390</td>
<td>Jazz Ensemble</td>
<td>1 cr.</td>
<td>Students explore the jazz idioms, both through the big-band and combo experiences. Students practice the skills necessary to improvise and to become completely familiar with the jazz style as well as to listen knowledgeably to jazz music. May be repeated for up to 8 hours credit. Jazz training helpful. Prerequisites: Previous instrumental training on saxophone, trumpet, trombone, piano, bass, guitar, or percussion. New students must have instructor approval.</td>
</tr>
<tr>
<td>MUSC 1400</td>
<td>Collegiate Chorale</td>
<td>1 cr.</td>
<td>A course involving singing in a choral ensemble. The choir performs a wide variety of choral literature from all periods. Membership is open to anyone. Performances are required. May be repeated for up to 8 credit hours.</td>
</tr>
<tr>
<td>MUSC 1403</td>
<td>Vocal Jazz</td>
<td>1 cr.</td>
<td>Students in the ensemble sing four-part to eight-part choral literature chosen from traditional and contemporary jazz and show choir repertoires. Audition is required for correct voice placement in the class. Prerequisite: Performances are required. May be repeated for up to 8 hours credit.</td>
</tr>
<tr>
<td>MUSC 1406</td>
<td>Women’s Choir</td>
<td>1 cr.</td>
<td>Students in this ensemble sing three- to four-part choral literature, chosen from all time periods, specifically written for female voices. Membership is open to LCCC female students and women in the community. Performances are required. May be repeated for up to 8 hours credit.</td>
</tr>
<tr>
<td>MUSC 1408</td>
<td>Men’s Choir</td>
<td>1 cr.</td>
<td>Students in this ensemble sing four-part choral literature, chosen from all time periods, specifically written for male voices. Membership is open to LCCC students and men in the community. Performances are required. May be repeated for up to 8 hours credit.</td>
</tr>
<tr>
<td>MUSC 1410</td>
<td>Vocal Ensemble (Cantorei)</td>
<td>1 cr.</td>
<td>Membership in this select chorus is by audition. Students are exposed to a variety of challenging and educational choral music. Students perform at a highly polished level, sing in at least two languages other than English, and sight sing a new work. This group may be involved in some limited touring within the state and region. May be repeated for a maximum of 8 credit hours. Corequisite: Must be taken concurrently with MUSC 1400.</td>
</tr>
<tr>
<td>MUSC 1450</td>
<td>Percussion Ensemble</td>
<td>1 cr.</td>
<td>A course that combines group instruction and performance on percussion instruments. The musical literature focuses on original works for percussion instruments from various stylistic periods in music history. May be repeated for up to 8 credit hours. Prerequisite: Prior percussion experience.</td>
</tr>
<tr>
<td>MUSC 1460</td>
<td>Brass Ensemble</td>
<td>1 cr.</td>
<td>A course that combines group instruction and performance on brass instruments. The musical literature focuses on original works for brass instruments from various stylistic periods in music history. May be repeated for up to 8 credit hours. Prerequisite: Prior brass experience and instructor approval.</td>
</tr>
<tr>
<td>MUSC 1470</td>
<td>Woodwind Ensemble</td>
<td>1 cr.</td>
<td>A course that combines group instruction and performance on woodwind instruments. The musical literature focuses on original works for woodwind instruments from various stylistic periods in music history. May be repeated for up to 8 credit hours. Prerequisite: Prior woodwind experience and instructor approval.</td>
</tr>
<tr>
<td>MUSC 1480</td>
<td>String Ensemble</td>
<td>1 cr.</td>
<td>A course that combines group instruction and performance on string instruments. Students gain an appreciation of small instrumental chamber ensemble music through performing and listening. The musical literature focuses on original works for string instruments from various stylistic periods in music history. May be repeated for up to 8 credit hours. Prerequisites: Prior performance experience on a string instrument.</td>
</tr>
<tr>
<td>MUSC 1485</td>
<td>World Music Ensemble</td>
<td>1 cr.</td>
<td>Students learn how to record live sounds, edit those sounds with editing software, and produce compact disks. Students collaborate by helping each other find solutions for various recording and editing needs and challenges. Class is open to LCCC students and people in the community. This is the second of two courses designed for students interested in sound amplification, recording, editing, and production.</td>
</tr>
<tr>
<td>MUSC 1490</td>
<td>Music for Elementary Classroom Teachers</td>
<td>3 cr.</td>
<td>A course designed for prospective, pre-service, or certified elementary teachers, or for those classroom teachers seeking recertification. Students acquire knowledge about materials, instruction, and methods pertaining to the integration of music in the elementary classroom. Hands-on demonstration and class participation are emphasized.</td>
</tr>
<tr>
<td>MUSC 1500</td>
<td>Written Theory III</td>
<td>3 cr.</td>
<td>A continuation of MUSC 1040. Topics include late 18th century harmony and forms and early 19th century harmony and forms, such as altered chords, higher numbered chords, secondary dominants and compositions in these styles. Prerequisite: Completion of MUSC 1040 and MUSC 1045. Corequisite: Must be taken concurrently with MUSC 2035.</td>
</tr>
</tbody>
</table>
MUSC 2035 (1 cr.)
Aural Theory III
Students develop ear training and sight singing skills. Students hear and write from dictation multi-phrase melodies and simple melodies that modulate various beats and more complicated triads. Prerequisites: Completion of MUSC 1040 and MUSC 1045. Corequisite: Must be taken concurrently with MUSC 2030.

MUSC 2040 (3 cr.)
Written Theory IV
A continuation of MUSC 2030. Topics include late 19th century impressionism, the music of the 20th century, such as modes, pan triadic technique, quartal harmony, 20th century rhythm, polychords, pandiatonicism, serial, and 12-tone technique. Prerequisites: Completion of MUSC 2030 and MUSC 2035. Corequisite: Must be taken concurrently with MUSC 2040.

MUSC 2045 (1 cr.)
Aural Theory IV
Students work on ear training and develop sight-singing skills. Students hear and write from dictation melodies that modulate to six related keys and complex rhythms with simple and compound meters and sight sing melodies that modulate or with non-diatonic tones. Prerequisites: Completion of MUSC 2030 and MUSC 2035. Corequisite: Must be taken concurrently with MUSC 2040.

MUSC 2050 (3 cr.)
Historical Survey I
First in a series of two courses on the history and literature of music from the Middle Ages to the present. Topics for the first semester include a review of the elements and materials of music, history, music literature, and culture of the Middle Ages, Renaissance, baroque era, and 18th century classicism. Prerequisites: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score) and ability to read music.

MUSC 2055 (3 cr.)
Historical Survey II
Second in a series of two courses on the history and literature of music from the Middle Ages to the present. Topics for the second semester include a review of the elements and materials of music, history, music literature, and culture of the romantic era to the present. Prerequisites: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score) and ability to read music.

MUSC 2060 (1 cr.)
Jazz Improvisation I
A course designed to provide students with the materials, techniques, and concepts needed for developing basic jazz improvisation skills. Students acquire and apply knowledge about scales, chord structure, common chord progressions, and developing improvisational ideas. Prerequisite: Ability to perform on a musical instrument or voice, including (but not limited to) piano, guitar, bass, trumpet, trombone, and saxophone.

MUSC 2065 (1 cr.)
Jazz Improvisation II
A continuation of MUSC 2060. A course designed to provide students with the materials, techniques, and concepts needed for developing intermediate and advanced jazz improvisation skills. Students acquire and apply knowledge about scales, chord structure, common chord progressions, and developing improvisational ideas. Prerequisite: Successful completion of MUSC 2060.

MUSC 2071 (1 cr.)
Applied Music: Vocal and Instrumental
A continuation of MUSC 1052. Private lessons in voice, piano, guitar, woodwind, brass, percussion, and string instruments with an approved college instructor. The student pays an additional lesson fee. Prerequisite: Completion of MUSC 1052 and approval of instructor. Additional Fee.

MUSC 2072 (1 cr.)
Applied Music: Vocal and Instrumental
A continuation of MUSC 2071. Private lessons in voice, piano, guitar, woodwind, brass, percussion, and string instruments with an approved college instructor. The student pays an additional lesson fee. Prerequisites: Completion of MUSC 2071 and approval of instructor. Additional Fee.

MUSC 2150 (1 cr.)
Guitar II
A continuation of MUSC 1150. Students build on fundamentals and review bar chords, major and minor scales, two- and three-part harmony and arpeggio picking patterns. Melodic development and solo playing will be included. May be repeated twice for credit. Prerequisite: Completion of MUSC 1150.

MUSC 2290 (1 cr.)
Elementary Class Piano III
Continuation of MUSC 1295. A continuation of MUSC 2290. Students further develop skill in hand independence, reading notes and rhythm patterns, sight reading, repertoire and hymns, transposition, improvisation, repertoire, harmonization using all chords available, securely playing all 12 major scales, and white-key tonic minor scales, two octaves, hands together. Additionally, students acquire knowledge of and skill in all 12 minor scales, harmonization using secondary dominants, learning two patriotic songs, and learning the accompaniment to a vocal or instrumental composition. Prerequisites: Completion of MUSC 2290 or successful completion of the final exam requirements for MUSC 2290 and instructor approval.

MUSC 2295 (1 cr.)
Elementary Class Piano IV
Continuation of MUSC 2290. Students further develop skill in hand independence, reading notes and rhythm patterns, sight reading, repertoire and hymns, transposition, improvisation, repertoire, harmonization using all chords available, securely playing all 12 major scales, and white-key tonic minor scales, two octaves, hands together. Additionally, students acquire knowledge of and skill in all 12 minor scales, harmonization using secondary dominants, learning two patriotic songs, and learning the accompaniment to a vocal or instrumental composition. Prerequisites: Completion of MUSC 2290 or successful completion of the final exam requirements for MUSC 2290 and instructor approval.

MUSC 2350 (3 cr.)
Studies in Musical Theatre I
Students explore the development of musical theatre and examine several diverse musicals that are important to its development. Analysis of libretti (text) and demonstration of musical theatre terminology are integrated in the survey of musicals. Students also rehearse and perform monologues and scenes from the musicals covered. Prerequisite: Completion of ENGL 0700 or ENGL 1001 (or equivalent placement test score).
Nursing Studies

NRST 1610 (6 cr.)
Nursing I
Students acquire introductory knowledge and principles basic to all nursing courses and practice. Students apply the nursing process to the study of the biopsychosocial spiritual individual by addressing oxygenation-circulation, nutrition-metabolic, sensory-security, and self-concept needs. Students also begin to apply theory as related to nursing's core components: professional behaviors, communication, assessment, clinical decision making, caring interventions, teaching and learning, collaboration, and managing care. Prerequisites: Concurrent enrollment in NRST 1710 is required. Admission to the Nursing Program.

NRST 1620 (6 cr.)
Nursing II
Students enhance their knowledge of the following nursing core components: professional behaviors, communication, assessment, clinical decision making, caring interventions, teaching and learning, collaboration, and managing care, and interventions by applying the nursing process to the care of the individual throughout the lifeSPAN with alterations in basic human needs. Concurrent enrollment in NRST 1720 is required. Prerequisite: Completion of NRST 1610 and NRST 1710.

NRST 1710 (3 cr.)
Clinical Experience I
Students demonstrate competency in nursing interventions utilized in patient care in both clinical and laboratory settings. Students apply theory to the care of the individual through the beginning use of the nursing process, written care plans and by addressing basic human needs and core components: professional behaviors, communication, assessment, clinical decision making, caring interventions, teaching and learning, collaboration, and managing care. Concurrent enrollment in NRST 1610 is required. Prerequisite: Admission to the Nursing Program. Additional Fee.

NRST 1720 (5 cr.)
Clinical Experience II
Students refine skills acquired in previous courses regarding the care of the individual throughout the lifeSPAN with common recurring alterations in basic human needs. Utilizing the nursing process, students apply the following nursing core components: professional behaviors, communication, assessment, clinical decision making, caring interventions, teaching and learning, collaboration, and managing care in providing nursing care. Concurrent enrollment in NRST 1620 is required. Prerequisites: Completion of NRST 1610 and NRST 1710. Additional Fee.

NRST 1980 (2 cr.)
Practical Nursing Role Exploration
Students participate in activities designed to facilitate the transition to practical nursing. Utilizing the following nursing core components: professional behaviors, communication, assessment, clinical decision making, caring interventions, teaching and learning, collaboration and managing care, students operationalize the role of the practical nurse. Prerequisites: Completion of NRST 1620 and NRST 1720.

NRST 2630 (6 cr.)
Nursing III
Students build on previously acquired nursing knowledge and skills in applying the nursing process to the care of the individual throughout the lifeSPAN with more complex alterations in basic human needs. Students integrate nursing core components: professional behaviors, communication, assessment, clinical decision making, caring interventions, teaching and learning, collaboration, and managing care in beginning the transition from student role to the associate degree nurse. Concurrent enrollment in NRST 2640 is required. Prerequisites: Completion of NRST 2630 and NRST 2730. Additional Fee.

NRST 2730 (5 cr.)
Clinical Experience III
Students demonstrate competency in advanced nursing interventions utilized in providing health care. Students also synthesize knowledge gained from prior and concurrent program courses in applying the nursing process and by demonstrating the following nursing core components: professional behaviors, communication, clinical decision making, caring interventions, teaching and learning, collaboration, and managing care for the individual throughout the lifeSPAN with more complex alterations in basic human needs. Concurrent enrollment in NRST 2630 is required. Prerequisite: Completion of NRST 2630 and NRST 2730. Additional Fee.

NRST 2740 (5 cr.)
Clinical Experience IV
Students demonstrate critical thinking in evidence-based practice when managing and providing nursing care to small groups of patients and families throughout the lifeSPAN with more complex alterations in basic human needs. Students incorporate the following nursing core components: professional behaviors, communication, assessment, clinical decision making, caring interventions, teaching and learning, collaboration, and managing care in beginning the transition from student role to the associate degree nurse. Concurrent enrollment in NRST 2740 is required. Prerequisites: Completion of NRST 2730 and NRST 2740. Additional Fee.

Paralegal

LEGL 1500 (3 cr.)
Introduction to Paralegal Studies
Introduction to Paralegal Studies is an introductory study of the American legal system with emphasis on the nature of legal processes and institutions. Students examine the American and Wyoming judicial systems, legal reasoning, ethical standards, and those procedural and substantive aspects of the law pertinent to the paralegal. Paralegal Studies majors are strongly encouraged to have completed or be currently enrolled in ENGL 1010. Prerequisites: Completion of DVST 0520 or ENGL 0520, DVST 0900 or MATH 0900, and ENGL 0700 or ENGL 1001 (or equivalent placement test scores).
LEGL 1710  (3 cr.)
**Legal Research and Writing I**
A study of legal research techniques and methods used in the practice of law, including electronic legal research. The course is designed to develop skills in legal reasoning, identifying and effectively using legal resources, and writing basic legal memoranda. Prerequisites: Completion of LEGL 1500 or enrollment in LEGL 1500 and permission of the program advisor. Additional Fee.

LEGL 1720  (3 cr.)
**Legal Research and Writing II**
A continuation of LEGL 1710 with emphasis on the advanced application of legal research principles. Topics covered include the preparation of various documents and memoranda and the application of a variety of research skills and sources. Prerequisite: Completion of LEGL 1500 and LEGL 1710 or equivalent or permission of legal assistant advisor. Additional Fee.

LEGL 1800  (3 cr.)
**Law Office Management**
Students acquire skills in managing a law office by developing an understanding of the basic administration, management, and technological aspects of today's firm. Students develop an understanding of law office structures, time and record-keeping systems, and general office procedures. Students will be exposed to ethical considerations faced by non-lawyer professionals as well as to professional development for the non-lawyer. Prerequisite: Completion of LEGL 1500. Additional Fee.

LEGL 2500  (3 cr.)
**Civil Procedure and Litigation**
A continuation of LEGL 2550. A study of the litigation process, including the Federal and Wyoming Rules of Civil Procedure. Students acquire skills in performing the functions and duties of a legal assistant in the litigation process, including the drafting of documents, such as pleadings, motions, discovery documents, and trial notebooks. Prerequisites: Completion of LEGL 1500 and LEGL 1710, or permission of instructor. Additional Fee.

LEGL 2550  (3 cr.)
**Evidence and Investigation**
Students acquire skills in interviewing clients and witnesses and locating information necessary when preparing a case for trial. Students develop an understanding of the basic state and federal rules governing the admissibility of evidence and acquire skills in preparing and handling evidence for courtroom use. Students also learn to prepare a variety of pre-trial documents. Legal Assistant majors must take this course prior to enrolling in LEGL 2500. Since LEGL 2500 is a continuation of this course, students are strongly encouraged to take these courses in consecutive semesters. Prerequisite: Completion of LEGL 1500. Corequisite: LEGL 1710, ENGL 1010, or permission of instructor. Additional Fee.

LEGL 2560  (3 cr.)
**Probate Practices and Procedures**
Students become familiar with probate and nonprobate assets; with the formation, modification, revocation, execution, and validity of wills, with the laws of intestacy, with the administration and closing of estates. Students also become aware of the various forms, procedures, and tax consequences involved in probating an estate. Prerequisite: Completion of LEGL 1500 or permission of instructor. Additional Fee.

LEGL 2570  (3 cr.)
**Torts**
A study of the principles behind personal injury settlements and litigation, with an emphasis on Wyoming law. Topics include intentional torts, negligence, and strict liability. Prerequisite: Completion of LEGL 1500 or permission of instructor. Additional Fee.

LEGL 2600  (3 cr.)
**Real Estate and Property Law**
A study of the law of real property and a survey of the more common types of real estate transactions. Students demonstrate the ability to prepare instruments necessary to complete various real estate transactions. Prerequisite: Completion of LEGL 1500 or permission of instructor. Additional Fee.

LEGL 2610  (3 cr.)
**Family Law**
Students develop an awareness of the legal assistant's role in the practice of family law. Students demonstrate an ability to produce documents concerning the formation and dissolution of marriage, property rights of married and unmarried couples, and parent-child relationships (including adoption, custody, and support). Students demonstrate knowledge of the tax consequences, basic legal procedures, and ethical practices involved in the practice of family law. Prerequisite: Completion of LEGL 1500 or permission of instructor. Additional Fee.

LEGL 2620  (3 cr.)
**Criminal Law and Procedure**
The student acquires knowledge of statutory and common law crimes, including an understanding of criminal law theory and of the construction and interpretation of criminal law statutes. Students also draft motions, prepare orders, and learn to interview criminal clients and to provide other office support necessary in criminal law practice. Prerequisite: Completion of LEGL 1500 or permission of instructor. Additional Fee.

LEGL 2630  (3 cr.)
**Constitutional Law**
Students study the basic principles and applications of constitutional law in an historical context. Each section of the course material will focus on four key concepts: limited government, the protection of private property, the promotion of commerce, and individual rights, with an emphasis on individual rights and due process. Students explore the impact of state and federal constitutional requirements on the development of the American legal system and the process by which United States Supreme Court accepts and decides cases. Prerequisite: Completion of LEGL 1500 or permission of the instructor. Successful completion of ENGL 1010 is highly recommended. Additional Fee.
LEGL 2680 (3 cr.)
Administrative Law
A course in which students develop an understanding of the principles of administrative law, administrative remedies, and administrative hearing procedures in various state and federal governmental agencies. Areas studied will include social security, EEOC, workers' compensation, as well as others. The course focuses on several practical problems in areas where legal assistants frequently are employed. Prerequisite: Completion of LEGL 1500 or permission of instructor. Additional Fee.

LEGL 2830 (3 cr.)
Computer Applications in the Law
Students demonstrate an awareness of available materials and demonstrate skills required in working with an automated law practice. Projects in this introductory course include, but are not limited to, the areas of timekeeping and billing, substantive systems, word processing, document composition, litigation control, and legal research. Students also develop skills with WordPerfect software and a variety of spreadsheets. Prerequisites: Completion of LEGL 1500, LEGL 1710, COSC 1200 or equivalent or permission of instructor. Additional Fee.

LEGL 2990 (3-5 cr.)
Paralegal Internship
Students demonstrate the ability to apply theoretical knowledge gained in the classroom by interning in a private office, governmental agency, court, or private business which utilizes attorneys. Students participate in any required seminars and produce documents describing and evaluating the internship experience. Prerequisites: Completion of LEGL 1500, LEGL 1710, LEGL 1720, LEGL 2500, and LEGL 2550, and permission of instructor. (S/U grade only.)

Philosophy

PHIL 1000 (3 cr.)
Introduction to Philosophy
An introduction to philosophical contemplation through survey of a variety of topics, including language, perception, epistemology, metaphysics, ethics, religion, and social theory. Prerequisites: Completion of DVST 0510 or ENGL 0510 and ENGL 0700 or ENGL 1001 (or equivalent placement test scores).

PHIL 2221 (3 cr.)
Logic
An exploration of the critical thinking and reasoning skills to be developed and practiced in any field. Students acquire knowledge of induction, deduction, and informal fallacies as they occur in everyday rhetoric. Prerequisites: Completion of DVST 0510 or ENGL 0510, DVST 0900 or MATH 0900, and ENGL 0700 or ENGL 1001 (or equivalent placement test scores).

PHIL 2301 (3 cr.)
Ethics
An examination of major ethical theories and contemporary moral issues. Students gain an understanding of the importance of critical reasoning in analyzing moral problems and forming ethical judgments. Prerequisites: Completion of DVST 0510 or ENGL 0510 and ENGL 0700 or ENGL 1001 (or equivalent placement test scores).

PHIL 2311 (3 cr.)
Philosophy of Religion
An examination of the basic components of religion. Students survey the major religions of the world, including Judaism, Christianity, Islam, Hinduism, Buddhism, Taoism, Confucianism, and Shinto, and gain an understanding of the theoretical, practical, and sociological aspects of each.

PHIL 2490 (3 cr.)
Topics: A course presenting a variety of significant topics in philosophy. May be repeated for up to 9 hours credit. Prerequisites: Completion of DVST 0510 or ENGL 0510 and ENGL 0700 or ENGL 1001 (or equivalent placement test scores).

Physical and Health Education – PE Activities

PEAC 1000 (1 cr.)
PE Activity: A course designed to provide instruction in special and/or unique outdoor sport or exercise activities in a “short” course format. The purpose is to give students an opportunity to experience intense one- to four-week training in an outdoor/wilderness environment or other physical activity. Tentative classes planned would range from swimnastics, white water rafting, camping adventures, mountaineering, outdoor survival, and orienteering to rollerblading. (activity)

PEAC 1011 (1 cr.)
Aquatic Conditioning
An aerobics exercise class for swimmers and nonswimmers. Swimming ability is not necessary. Students focus on the improvement of cardiovascular endurance, strength, and flexibility using the water’s resistance. The class consists of a variety of aerobic exercises with drills and games, walking/running, and use of flotation resistance-type materials in the shallow end of the pool. (activity) Additional Fee.

PEAC 2001 (1 cr.)
Beginning Swimming
Students demonstrate skills in the activity of swimming. In addition, students discuss related water safety issues. (activity) Additional Fee.
PEAC 1015 (1 cr.)
Beginning Skin and Scuba Diving
The student develops basic SCUBA diving skills and acquires the prerequisite skills necessary for open-water training. The student must complete open-water dives to receive a certification card. The certification dives can be arranged with the instructor. The PADI Open Water Diver Course is designed to teach basic scuba diving skills to persons 12 and older with an emphasis on safety. (activity) Additional Fee.

PEAC 1016 (1 cr.)
Swimmastics
This class is for swimmers. It is a continuation of aquatic conditioning and consists of lap swimming, stroke improvement, drills, exercises, and water walking using resistance-type equipment and floats. Primary focus will be improvement of cardiovascular endurance, strength, and flexibility. Students should be comfortable in the deep end of the pool. (activity) Additional Fee.

PEAC 1030 (1 cr.)
Dance Aerobics
An investigation of the basic principles of aerobic dance, fundamental movements, composition, and movement manipulation as related to rhythm and aerobic fitness. (activity) Additional Fee.

PEAC 1031 (1 cr.)
Western and Social Dance
This course provides instruction in western dance steps that relate to contemporary western and social dance. Students become knowledgeable about elementary principles and techniques in western and social dance and develop the ability to perform basic movement patterns while practicing quality of movement patterns and analyzing music as it relates to western and social dance. (activity) Additional Fee.

PEAC 1044 (1 cr.)
Beginning Tae Kwon Do
This course provides instruction in Tae Kwon Do, the Korean martial art of self-defense. This course teaches the importance of self-discipline, self-control, self-confidence, weight control, respect and courtesy, and the art of self-defense. Students become knowledgeable about and acquire skills in blocking, punching, kicking, one-step sparring, free sparring, and self-defense stances. (activity) Additional Fee.

PEAC 1046 (1 cr.)
Introduction to Pilates
This is an introductory course based on the fitness of Pilates. Successful students demonstrate proper centering, alignment, breathing control, precision, flowing movement and relaxation and are able to recognize the benefits of Pilates, which include a toned physique, improved posture, coordination, and flexibility. (activity) Additional Fee.

PEAC 1047 (1 cr.)
Introduction to Spinning
Spinning is a comprehensive indoor cycling class. Students demonstrate proper basic riding form and techniques as well as knowledge of nutrition and muscle mechanics. In addition, students develop cycling skills and improve muscle tone, cardiovascular conditioning, and strength through a series of performance drills. (activity) Additional Fee.

PEAC 1050 (1 cr.)
Beginning Tennis
Students acquire knowledge of rules, regulations, terminology, and play strategies. They also practice and develop appropriate motor skills to allow them to successfully participate and use this information as a lifetime leisure activity. (activity) Additional Fee.

PEAC 1250 (1 cr.)
Archery
Students demonstrate knowledge of rules, regulations, terminology, and play strategies. They also practice and demonstrate appropriate motor skills to allow them to successfully use this information as a lifetime leisure activity. The physical education department will provide equipment. (activity) Additional Fee.

PEAC 1253 (1 cr.)
Beginning Bowling
Students acquire the basic fundamentals of the game of bowling so that bowling may be understood and enjoyed as a lifetime leisure activity. (activity) Additional Fee.

PEAC 1254 (1 cr.)
Beginning Fencing
Students acquire knowledge of rules, regulations, terminology, and play strategies. They also practice and develop appropriate motor skills to allow them to successfully participate and use this information as a lifetime leisure activity. (activity) Additional Fee.

PEAC 1255 (1 cr.)
Beginning Golf
Students acquire knowledge of rules, regulations, terminology, and play strategies. They also practice and develop appropriate motor skills to allow them to successfully participate and use this information as a lifetime leisure activity. (activity) Additional Fee.

PEAC 1257 (1 cr.)
Beginning Racquetball
Students acquire knowledge of rules, regulations, terminology, and play strategies. They also practice and develop appropriate motor skills to allow them to successfully participate and use this information as a lifetime leisure activity. (activity) Additional Fee.

PEAC 1259 (1 cr.)
Beginning Cross Country Skiing
Students become acquainted with technical and mechanical aspects of cross country skiing. Students learn safety considerations associated with cross country skiing. (activity) Additional Fee.

PEAC 1260 (1 cr.)
Beginning Volleyball
Students acquire knowledge of rules, regulations, terminology, and play strategies. They also practice and develop appropriate motor skills to allow them to successfully participate and use this information as a lifetime leisure activity. (activity) Additional Fee.

PEAC 1263 (1 cr.)
Beginning Basketball
Students acquire knowledge of rules, regulations, terminology, and play strategies. They also practice and develop appropriate motor skills to allow them to successfully participate and use this information as a lifetime leisure activity. (activity) Additional Fee.

PEAC 1273 (1 cr.)
Heavy Resistance Conditioning
Resistance conditioning is an introductory course based on proper lifting techniques for the strength and conditioning of the major muscle groups. Successful students demonstrate proper lifting techniques, plan individual nutritional programs, and construct training programs. (activity) Additional Fee.

PEAC 1274 (1 cr.)
Advanced Weight Training
Students acquire knowledge in advanced elements of weight training. Students acquire the knowledge necessary to design individual training programs to meet the student’s fitness goals. Aspects of nutrition, biomechanics, and physiology are covered in greater depth than in PEAC 1273. Prerequisite: Completion of PEAC 1273 or consent of instructor. (activity) Additional Fee.
Additional Fee.

PEAC 1287
Rock Climbing
An introductory course on the basic fundamentals of rock climbing. The course develops skills in safety, knot tying, rope handling, climbing, belay techniques, climbing signals, bouldering, and rappelling and starts with indoor training and includes outdoor climbs at Vedauwoo Natural History Site. (activity) Additional Fee.

PEAC 1288
Bicycle Touring
Students bicycle city, country, and mountain roads and acquire skills associated with bicycle maintenance and safety. Students also become knowledgeable about the following as they relate to cycling: nutrition, clothing, purchase, and public transport. Helmets are required. Students are required to bring bicycles to each session. (activity) Additional Fee.

PEAC 1290
Therapeutic Relaxation
A course in which students gain an understanding of the basic principles and techniques of massage, stress reduction, lifestyle relaxation, breathing techniques, and stress management. (activity) Additional Fee.

PEAC 1294
Hatha Yoga
A course combining physical activity (beneficial movements and postures) with mental discipline (body awareness and regulated breathing). Students achieve, according to their abilities and commitment, the following benefits: greater flexibility, better balance, deeper relaxation, regulated breathing, and heightened body awareness. (activity) Additional Fee.

PEAC 1295
Individualized Exercise Programs
Students examine their current level of fitness and investigate the relationships between wellness and an active lifestyle and its impact on their overall health. Students develop, implement, and modify a program geared to their specific fitness and wellness needs. (activity) Additional Fee.

PEAC 1298
Snowshoeing
Students explore the technical and mechanical aspects of snowshoeing. Students also examine safety considerations associated with snowshoeing. Topics include equipment used, clothing, orienteering, and survival skills. (activity) Additional Fee.

PEAC 1301
Introduction to Ballroom Dance
This course provides instruction in those dance steps that relate to basic ballroom and social dance. Students become knowledgeable about elementary principles and techniques in social ballroom dance patterns and develop the ability to perform basic movement patterns and analyze music as it relates to ballroom and social dance. (activity) Additional Fee.

PEAC 2011
Intermediate Swimming
A class for students who are not afraid of the water but are not proficient swimmers. Students in this course learn the front crawl, back crawl, breaststroke, elementary backstroke, and sidestroke. Prerequisite: Completion of PEAC 1012 or consent of instructor. (activity) Additional Fee.

PEAC 2050
Intermediate Tennis
Students enhance their knowledge of and demonstrate advanced tennis skill techniques. They further develop tennis skill fundamentals and prepare for basic team and individual play strategies. Prerequisite: Completion of PEAC 1050 or consent of instructor. (activity) Additional Fee.

PEAC 2055
Intermediate Golf
A course providing instruction in the development of intermediate golf skills with emphasis on the competitive nature of the sport. Students review and practice basic golf swing fundamentals, enhance specific golf skills, understand and develop concentrated practice habits, understand the concepts and advantages of developing a handicap, and design a mini-golf tournament. Prerequisite: Completion of PEAC 1255 and/or instructor approval. (activity) Additional Fee.

PEAC 2072
Advanced Volleyball
Students enhance knowledge of volleyball skill techniques, further develop volleyball skill fundamentals, and prepare for basic team and individual play organization. Prerequisite: Completion of PEAC 1260 or consent of instructor. (activity) Additional Fee.

PEAC 2086
Camping Adventures
The ultimate goal of the course is to develop sophisticated, knowledgeable campers who are capable of outdoor camping, for any reasonable length of time, with the confidence to safely enjoy the experience. Emphasis is on personal fitness, prevention and treatment of common camping injuries, and setting up and enjoying an environmentally safe camp. Students plan and organize a two-night/three-day camping trip. (activity) Additional Fee.

PEAC 2087
Rafting Adventures I
A beginning/intermediate-level course introducing students to basic river running. After being introduced to basic river-running techniques and safety issues, students complete a two-day, combination float/white water rafting trip. (activity) Additional Fee.

Physical and Health Education – Professional PE

PEPR 1004
Foundations of Physical and Health Education
This course is designed for prospective school-based K-12 physical education teachers. Students become knowledgeable about five primary areas: history and philosophy of education and schooling in America; the effect of life experiences on preservice teachers; American social and cultural trends on the practice of physical education; academic credibility in physical education; and innovation and change in physical education. These content areas provide students with contemporary vision/philosophy of the field of physical education teacher education. (theory) Prerequisites: Completion of DVST 0510 or ENGL 0510 and ENGL 0700 or ENGL 1001 (or equivalent placement test scores).
Corequisite: PTAT 1600. Additional Fee. and applying compression wraps, management programs, assessing assistive devices, developing edema assessment and measurement of pain and inflammation, applying a variety of massage techniques, and analyzing and applying principles of gait training. The students also assess and apply a variety of modalities including: thermal agents, continuous passive motion, ultrasound, infrared, electrical stimulation, diathermy, mechanical and manual traction, iontophoresis, and phonophoresis. Prerequisites: Completion of PTAT 1600 and PTAT 1650. Corequisite: PTAT 1970.

**Physical Therapist Assistant**

**PTAT 1600** *(3 cr.)*  
**Introduction to Physical Therapy**  
Students examine the history and progress of the profession of physical therapy. In addition, students discuss professional ethics, malpractice, and licensure laws related to physical therapy and the specifics related to the physical therapist assistant (PTA). Students also develop professional oral and written communication skills, discuss current issues in physical therapy, utilize basic physical therapy terminology, practice collaboration with other health care professionals, and participate in reviewing the basic format of the professional literature. Prerequisite: Admission to the Physical Therapist Assistant program. Corequisite: PTAT 1650. Additional Fee.

**PTAT 1650** *(4 cr.)*  
**Therapeutic Procedures I**  
Students explore and develop skills involving the principles and practices of physical therapy including performing range of motion assessment and measurements, assessing posture, monitoring vital signs, implementing universal precautions, performing and assessing body mechanics during a variety of activities, performing transfers for a variety of patient populations, assessing wheelchair fitting, utilizing assistive devices, developing edema management programs, assessing and applying compression wraps, and demonstrating a variety of taping procedures. Prerequisite: Admission to the Physical Therapist Assistant program. Corequisite: PTAT 1600. Additional Fee.

**PTAT 1660** *(4 cr.)*  
**Therapeutic Procedures II**  
Students examine the principles and practices of physical therapy including assessment and measurement of pain and inflammation, applying a variety of massage techniques, and analyzing and applying principles of gait training. The students also assess and apply a variety of modalities including: thermal agents, continuous passive motion, ultrasound, infrared, electrical stimulation, diathermy, mechanical and manual traction, iontophoresis, and phonophoresis. Prerequisites: Completion of PTAT 1600 and PTAT 1650. Corequisite: PTAT 1970.

**PTAT 1720** *(4 cr.)*  
**Therapeutic Exercise**  
Students explore the theory, principles, and implementation of therapeutic exercise programs for a variety of patient populations. In addition, they apply specific strategies for stretching (sustained hold, contract/relax, strain/counterstrain), strengthening (isometrics, isotonics, open/closed chain, resistive exercises, weight training, aquatics), and balance and coordination activities. Students also examine theories of motor control and motor learning, and implement these theories into clinical practice. Lab activities will involve therapeutic exercise programs set up and implementation in the clinical setting. Prerequisites: Completion of PTAT 1600 and PTAT 1970. Corequisites: PTAT 1740 and PTAT 2970. Additional Fee.

**PTAT 1740** *(1 cr.)*  
**Cardiac Rehabilitation**  
Students explore an in-depth description of cardiopulmonary rehabilitation and develop skills to read and assess basic EKGs (normal and pathological), identify cardiac protocols, assess and monitor common cardiopulmonary conditions, review cardiac and pulmonary circuitry, identify cardiac precautions for a variety of patient populations, develop a comprehensive treatment program for patients with cardiopulmonary conditions, assess and perform postural drainage, and establish endurance and wellness programs for healthy and diseased individuals. Prerequisites: Completion of PTAT 1970 and PTAT 1660. Corequisites: PTAT 1720 and PTAT 2970.

**PTAT 1800** *(3 cr.)*  
**Neurology**  
Students examine multiple pathologies of the nervous system including stroke, demyelinating diseases, spinal cord injury, Parkinson’s Disease, and traumatic brain injuries (TBI). In addition, students contrast normal structures and function of the nervous system, including motor control centers of the brain and spinal tracts, to a nervous system with specific impairments. Students also develop skills to assess, treat, and manage the neurologically impaired patient based on clinical signs and symptoms of neurological disorders. Prerequisite: Completion of PTAT 2970. Corequisites: PTAT 1820, PTAT 1840, and PTAT 2971.

**PTAT 1820** *(4 cr.)*  
**Orthopedics**  
Students examine common orthopedic conditions and their medical management. They identify the common orthopedic conditions, identify components of an orthopedic physical therapy evaluation, and analyze the information obtained from the evaluation. Students develop treatment goals and interventions to implement a therapy program for a variety of orthopedic conditions and post-surgical conditions. Prerequisite: Completion of PTAT 2970. Corequisites: PTAT 1800, PTAT 1840, and PTAT 2971. Additional Fee.

**PTAT 1840** *(1 cr.)*  
**Specialty Rehabilitation**  
Students examine the theory, principles, and development of a therapy program for a variety of orthopedic conditions and post-surgical conditions. Corequisites: PTAT 1820, and PTAT 2970.
PTAT 1970  (3 cr.)
PTA Internship I
Students explore a variety of practice opportunities in the clinical setting, gaining exposure to the working environment under the supervision of a physical therapist. Students perform all documentation for patient care as used in the particular clinical setting. They perform all modalities as directed by the physical therapist. Finally, students carry a case load of 25-35% of a clinician by the tenth week of the internship with distant (line of sight) supervision by the physical therapist. Prerequisites: Completion of PTAT 1600 and PTAT 1650. Corequisite: PTAT 1660. (S/U grade only) Additional Fee.

PTAT 2030  (4 cr.)
Functional Kinesiology
Students explore the application of anatomy to the study of human motion as it relates to the field of physical therapy. Students identify positioning and perform procedures for muscle testing, biomechanics, gait, posture, arthrokinesematics, and goniometry of the lower extremities and describe the physiology of muscle contraction. Prerequisite: Prior completion of or concurrent enrollment in ZOO 2025. Additional Fee.

PTAT 2970  (5 cr.)
PTA Internship II
Students explore a variety of practice opportunities in the clinical setting, gaining additional exposure to the working environment under the supervision of a physical therapist. Students perform all documentation for patient care as used in the particular clinical setting and also perform all modalities as directed by the physical therapist. In addition, students develop exercise programs based on the physical therapist's findings and assessment. This course is recommended for students in the paramedical sciences—pharmacy, medical technology, radiographic technology, and dental hygiene—and other non-science majors requiring a science, and mathematics majors. Students acquire a working knowledge of mechanics, dynamics for static bodies and dynamic mechanics for bodies in motion, and energy transfer methods. This is an algebra-based course intended for premedical, predental, pharmacy, and biology. Prerequisites: Completion of DVST 0510 or ENGL 0510, DVST 0630 or ENGL 0630, and MATH 1405 (or equivalent placement test scores). Offered only in the fall semesters. Additional Fee.

PTAT 2971  (5 cr.)
PTA Internship III
Students explore a variety of practice opportunities in the clinical setting, gaining additional exposure to the working environment under the supervision of a physical therapist. Students document all patient care as used in the particular clinical setting and also perform all modalities as directed by the physical therapist. In addition, students develop exercise programs based on the physical therapist's findings and assessment. In this final internship, students carry a case load of 75-100% of a physical therapist assistant with distant (line of sight) supervision by the physical therapist and practice with little direction from the supervising physical therapist. Students should be given a case load and treat the patients according to clinical practice as documented by the physical therapist. Prerequisite: Completion of PTAT 2970. Corequisites: PTAT 1800, PTAT 1820, and PTAT 1840. (S/U grade only) Additional Fee.

Physics

PHYS 1050  (4 cr.)
Concepts of Physics
This course is designed to introduce the student to the science of matter interacting with energy in a variety of fields. Students demonstrate their competencies in the scientific method, properties of matter, mechanics, heat, sound, light, electricity and magnetism, radiation, and atomic and nuclear interactions. This course is recommended for students in the paramedical sciences—pharmacy, medical technology, radiographic technology, and dental hygiene—and other non-science majors requiring a lab physics course. Three hours lecture, two hours lab per week. Prerequisites: Completion of DVST 0510 or ENGL 0510, DVST 0630 or ENGL 0630, and MATH 0930 (or equivalent placement test scores). Additional Fee.

PHYS 1080  (4 cr.)
Principles of Technology
Students develop necessary skills and knowledge in the principles of technology as applied to the scientific concepts and laws of force, work, rate, resistance, energy, and power. Students gain an understanding and working knowledge of these principles through practical application experiences. The course is specifically designed for students, both science and non-science majors, who plan to pursue careers as technicians. Prerequisites: Completion of DVST 0510 or ENGL 0510 and MATH 1000 or higher (or equivalent placement test scores). (Cross-listed as ENTK 1080) Additional Fee.

PHYS 1110  (4 cr.)
General Physics I
The first of a two-semester series of courses in elementary college-level physics with a laboratory component. Upon successful completion of this course, students will possess an understanding of mechanics, vector mechanics for static bodies and dynamic mechanics for bodies in motion, and energy transfer methods. This is an algebra-based course intended for premedical, predental, pharmacy, and biology. Prerequisites: Completion of DVST 0510 or ENGL 0510, DVST 0630 or ENGL 0630, and MATH 1405 (or equivalent placement test scores). Offered only in the fall semesters. Additional Fee.

PHYS 1120  (4 cr.)
General Physics II
A second-semester course in elementary college-level physics. Includes a laboratory component. Students learn wave phenomena, electricity, and the fundamental structure of matter. Prerequisite: Completion of PHYS 1110/ or consent of instructor. Offered only in the spring semesters. Additional Fee.

PHYS 1310  (4 cr.)
College Physics I
A calculus-based introductory physics course with laboratory. Intended primarily for engineering, physical science, and mathematics majors. Students acquire a working knowledge of vector mechanics, dynamics of linear and circular motion, energy and momentum techniques, and mechanical waves. Students receiving credit for PHYS 1310 cannot receive duplicate credit for PHYS 1110. Prerequisites: Completion of DVST 0630 or ENGL 0630 (or equivalent placement test score) and MATH 2200. Offered fall semesters only. Additional Fee.

PHYS 1320  (4 cr.)
College Physics II
A second-semester calculus-based introductory physics course with laboratory. Students acquire a working knowledge of thermodynamics, electricity and magnetism, and optics. Students receiving credit for PHYS 1320 cannot receive duplicate credit for PHYS 1120. Prerequisite: Completion of MATH 2205 or concurrent enrollment, and PHYS 1310. Offered spring semesters only. Additional Fee.
Political Science

POLS 1000 (3 cr.)
American and Wyoming Government
A fundamental introductory course in the organization and structure of the national and state governments. Students explore the three branches of government (legislative, executive, and judicial) and learn to think critically about them. They also evaluate themes in federalism, civil liberties, civil rights, public opinion, political parties, campaigns and elections, and selected public policy topics. Because many political science instructors require research papers, ENGL 1010 is strongly recommended. This course meets the state statutory requirement for instruction in the United States and Wyoming constitutions. Prerequisites: Completion of ENGL 0700 or ENGL 1001 or placement into ENGL 1010 or concurrently enrolled in ENGL 1010.

POLS 1005 (1 cr.)
Computer Applications in Political Science
An introduction to American government using computers. Students become knowledgeable about data analysis in such areas of political research as public opinion and voting behavior. Students map electoral and popular votes for U.S. presidents as far back as 1860, investigate the voting patterns and campaign financing of members of Congress, and discover the role of party affiliation in Congress. A variety of political issues are also investigated. This course is designed to assist students currently, or previously, enrolled in POLS 1000 in applying political concepts. Prior knowledge of computers is not necessary. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

POLS 1100 (1 cr.)
Wyoming Government
An introductory course focusing on the Constitution and government processes. Students demonstrate knowledge of the major principles of the Wyoming Constitution. This course is designed for students who have earned credit for American Government or U.S. History at an out-of-state college or by Advanced Placement but have not fulfilled the Wyoming Constitution requirement. Online only. Prerequisites: Completion of ENGL 0700 or ENGL 1001 or placement into ENGL 1010 or concurrently enrolled in ENGL 1010.

POLS 1200 (3 cr.)
Non-Western Political Cultures
Students learn about, and gain an appreciation of, selected non-Western political cultures by acquiring an understanding of the distinctive political institutions and practices created by these cultures. The course consists of using non-Western nations from Asia and Africa as case studies. Because many political science instructors require research papers, ENGL 1010 or its equivalent is strongly recommended. Prerequisite: Completion of POLS 1000 or consent of instructor.

POLS 2000 (3 cr.)
Current Issues in American Government
Students investigate a variety of current political topics and issues. Students are encouraged to explore key public policy problems, the policy-making process, and the final public policy choice. Students are expected to keep abreast of political events in America and to apply basic concepts in American government to current affairs. A variety of American political ideologues are investigated. Because many political science instructors require research papers, ENGL 1010 or its equivalent is strongly recommended. Prerequisite: Completion of POLS 1000 or consent of instructor.

POLS 2070 (3 cr.)
Politics of State and Local Government
Students analyze recent developments in American state and local politics. They are encouraged to explore how the policy-making process at the city-county level interacts with politics at the state level. Students research specific Wyoming political issues. Because many political science instructors require research papers, ENGL 1010 or its equivalent is strongly recommended. Prerequisite: Completion of POLS 1000.

POLS 2075 (1 cr.)
Wyoming Legislative Process
Students are expected to gain knowledge about and an understanding of the political and procedural processes employed by Wyoming’s legislature. Utilizing role-playing methods, students learn legislative procedures, leadership functions, and lobbying techniques.

POLS 2128 (3 cr.)
Terrorism
Students complete an historical overview of terrorism and formulate answers to the questions: What is terrorism? Who or what perpetrates terror? What are the motives and intentions of terrorists? Students develop a vocabulary and conceptual toolkit to understand terrorism domestically and internationally. Students examine political and religious fundamentalism, some of the cultural actors who played key roles in current movements, and the effects of these issues on individuals. They explore how social scientific tools can be used to understand conflict. Finally, students consider America’s war on terrorism and world politics. Prerequisite: The prerequisite for POLS 2128 is successful completion of POLS 1000 or consent of the instructor. Because there is a substantial writing component, completion of ENGL 1010 is also highly recommended.

POLS 2310 (3 cr.)
Introduction to International Relations
An analysis of the political relations of nations emphasizing methods of explaining and interpreting their behavior. With contemporary problems serving as illustrations, students critically evaluate topics in war and peace, international political economy, and the evolving world order. Because many political science instructors require research papers, ENGL 1010 or its equivalent is strongly recommended. Prerequisite: Completion of POLS 1000 or consent of instructor.

POLS 2330 (3 cr.)
Environmental Ethics
Students focus on environmental issues that occur locally, nationally, and globally, and on the various ethical, philosophical, and intellectual traditions that influence environmental policy-making. Because this course has a substantial written component, ENGL 1010 is strongly recommended. Prerequisite: Completion of POLS 1000.

POLS 2410 (3 cr.)
Introduction to Public Administration
Students learn to analyze the principles, methods and practices involved in administering the public sector. Students gain knowledge about government finance, budgeting, organizational theory, personnel practices, human behavior, government and computers, and the responsiveness of governmental administrators to the public. Because many political science instructors require research papers, ENGL 1010 or its equivalent is strongly recommended. Prerequisite: Completion of POLS 1000.
POLS 2460 (3 cr.)
Introduction to Political Philosophy
A history of Western political thought from Plato to the present. Students learn to critically examine such topics as freedom and authority, popular sovereignty, justice, and the nature and functions of government. Because many political science instructors require research papers, ENGL 1010 or its equivalent is strongly recommended. Prerequisite: Completion of POLS 1000 or consent of instructor.

POLS 2470 (1-4 cr.)
Government Internship I
The political science internship program is designed to integrate political experiences with academic knowledge. The student is expected to participate in specific assignments, observe activities in the area of interest, and relate the information and experiences gained in a written report. Credit can be earned in any of four areas: legislature, lobbying, campaigns, or public service. A student may receive one to four hours credit depending on the amount of time given to an assignment. Because many political science instructors require research papers, ENGL 1010 or its equivalent is strongly recommended. Prerequisite: Completion of POLS 1000.

Psychology

PSYC 1000 (4 cr.)
General Psychology
A basic introductory course covering a general survey of psychology through lectures, class discussions, and assigned readings. Students acquire knowledge in a variety of topics including the brain, sensory systems, motivation, learning, emotion, human development, consciousness, personality, mental health and mental illness, memory, thinking, and the scientific study of behavior. Prerequisite: Completion of ENGL 0700 or ENGL 1001 (or equivalent placement test score) or placement into ENGL 1010 or currently enrolled in ENGL 1010.

PSYC 1004 (3 cr.)
Theories and Psychology of Terrorism
Students review modern sociological, psychological, and criminological theories that show relevance to terrorism of the 21st century. Beginning with the theories of political violence, students provide an objective overview of theories, concepts, causal factors, and models. Students review various theoretical explanations of terrorism and terrorist acts, including a number of subcultural and personality factors, and explore the implications of these theories for the professions of homeland security and psychology. Prerequisites: Completion of PSYC 1000 and ENGL 1010.

PSYC 1100 (3 cr.)
Organizational Human Relations
An introduction to the practice of using systematic knowledge from psychology to understand individual human behavior within organizations. Topics such as motivation, leadership, power, quality of work life, and communication offer insight into the accomplishment of organizational and personal goals. Prerequisites: Completion of DVST 0520 or ENGL 0700 or ENGL 1001 (or equivalent placement test scores).

PSYC 2000 (4 cr.)
Research Psychological Methods
This course introduces students to fundamental scientific methods in psychology. Students acquire a variety of research strategies ranging from observational to experimental. This includes the ability to develop logic proposals, conduct basic research, gather data, perform statistical analyses, interpret results, critique published research, read and write in scientific style, and use the APA format. Prerequisites: Completion of PSYC 1000, ENGL 1010, and STAT 2070 or consent of the instructor.

PSYC 2050 (3 cr.)
Introductory Counseling and Clinical Theories
Students review the development of psychotherapy, study psychological concepts basic to the therapeutic process, and gain an understanding of the major models and principles of psychotherapy. Prerequisites: Completion of PSYC 1000 and ENGL 1010.

PSYC 2080 (4 cr.)
Psychobiology
This course is designed as a general introduction to the biological bases of behavior. Emphasized are the structural and functional properties of the human nervous system, although comparisons to other animals will be made. Healthy and impaired brain functions will be covered in detail as they relate to behavior. Topics include neural transmission, nervous system organization, sensation, perception, sleep, learning, memory, language, emotion, thirst, hunger cognition, movement, drug effects on behavior, consciousness, psychological disorders, and brain disorders. Prerequisite: Completion of PSYC 1000 or consent of instructor.

PSYC 2090 (3 cr.)
Psychology of Religion
Students examine the relationship between religion and human behavior, including theories of religion, the history of the psychology of religion, stages of religious development, religious experience and conversion, and religion and well being. Prerequisites: Completion of PSYC 1000 and ENGL 1010.

PSYC 2210 (3 cr.)
Drugs and Behavior
Students learn how drugs affect behavior, including both psychotherapeutic agents and drugs with abuse potential. Included will be a brief introduction to the chemistry of the brain and how drugs may have their effects, as well as behavioral, social, historical, and medical aspects of each major class of psychoactive drugs. Prerequisites: Completion of PSYC 1000 and ENGL 1010 or consent of the instructor.

PSYC 2300 (3 cr.)
Child Psychology
Students gain knowledge in the development and behavior of children from conception through adolescence with emphasis on the major roles played by maturation and learning. Development theory, research findings, and applications to current issues in child psychology are addressed. Prerequisites: Completion of PSYC 1000 and ENGL 1010 or consent of the instructor.

PSYC 2310 (2 cr.)
Exceptional Children
Students gain knowledge of behaviors, mental processes, and development patterns of atypical children—the physically handicapped, the gifted, the mentally retarded. The study of children with neurological and psychological disturbances will be included. Prerequisites: Completion of PSYC 1000, PSYC 2300/EDFD 2460, ENGL 1010 or consent of the instructor.

PSYC 2330 (3 cr.)
Psychology of Adjustment
A study of common problems of adjustment with emphasis on understanding the psychological principles and social factors that bear on mental health. Prerequisites: Completion of PSYC 1000 and ENGL 1010 or consent of the instructor.
PSYC 2340
Abnormal Psychology
This course provides a general overview of abnormal behavior, emphasizing types, etiology and treatment methods. At the conclusion of this course, the students demonstrate an understanding of and describe facts, principles, and concepts that are basic to a scientific understanding of mental disorders. Students also demonstrate an understanding of the behavioral, biological, cognitive, genetic, and social contributions and aspects of mental disorders as well as the psychological and psychopharmacological treatments that have been shown to be effective for the specific mental disorders. Prerequisite: Six hours in psychology, including completion of PSYC 1000 and ENGL 1010.

PSYC 2380
Social Psychology
Students demonstrate an understanding of general theories and concepts of social psychology. In addition, students demonstrate the ability to apply the theories in the analysis of a specific issue or social setting. Topics include research techniques, social perception, social influence, social relations, and application. The entering student should have a solid understanding of basic concepts of psychology (PSYC 1000) as well as good writing skills (ENGL 1010). Prerequisites: Completion of PSYC 1000 and ENGL 1010 or consent of the instructor.

PSYC 2395
Sophomore Seminar
A course for psychology majors who are in or near their final semester and have taken at least nine semester hours of psychology. Students reflect upon major competencies developed over their course of study at LCCC and create a portfolio reflective of their studies. Students present their work to an audience of their peers and instructors. Prerequisites: Completion of ENGL 1010, completion of nine semester hours of psychology or instructor permission.

PSYC 2400
Contemporary Social Issues
In a seminar format, students gain new perspectives on contemporary issues important to the field of psychology. The emphasis is on individual investigations and class discussions. Prerequisite: Completion of PSYC 1000 or equivalent.

QuickStart

QQSCS 1550
Customer Service Specialist
Students acquire customer service knowledge, including business principles, sales, and computers and business software. Students also develop skills in telephone service, face-to-face customer service, business math, writing, business teamwork, and job interviewing. Prerequisite: Successful completion of screening process. (S/U grade only)

QQSWH 1550
Warehousing and Distribution
Students acquire warehousing knowledge, including working in a warehousing environment, warehousing and workplace practices, and warehousing and distribution processes. Students also develop critical skills in core warehousing and warehousing technology. Prerequisite: Successful completion of screening process. (S/U grade only)

Radiology Technology

RDTK 1503
Introduction to Radiography
An introductory course covering the history of radiography, radiographic and general medical terminology, introductory radiographic equipment, radiation protection, and abdomen, chest, and upper-extremity positioning. Students become knowledgeable about ethical and legal issues and basic radiology safety. During the last half of the semester, students begin clinical rotations and by semester end, competency and proficiency in chest, abdomen, and upper extremity radiography are achieved. Prerequisites: Acceptance into the program, reading placement test score at Level III, demonstrated competency to enter ENGL 1010, and MATH 1000 or MATH 1400 (or equivalent placement test scores). Additional Fee.

RDTK 1520
Radiographic Patient Skills
An introduction to patient care skills used in the radiography field. Students will demonstrate skills in communicating, evaluating, protecting, and providing physical care for the patient while in the radiology department. This course fulfills a course requirement of the Radiography Program. Prerequisite: Acceptance into the program. Additional Fee.

RDTK 1583
Radiographic Procedures I
A continuation of RDTK 1503. This course is designed to introduce the student to the anatomy and positioning of additional radiographic examinations and the theories and procedures covering X-ray production, image quality, processing, technique guidelines, and spatial relationships. Specifically, the student will learn and develop positioning skills for the shoulder girdle, lower extremity, pelvis, entire spine, sternum, ribs, and mamography. The student also will demonstrate proper radiation safety techniques, setting and applying all technical factors, the proper use of radiographic equipment and accessories such as grids, screens, and beam restrictors, and improve the ability to expose and critique quality radiographs. Prerequisite: Completion of RDTK 1503.

RDTK 1584
Radiographic Lab I
A course to be taken concurrently with RDTK 1583 which allows the simulated application of the principles learned in RDTK 1583 and film critique. The student radiographer will become proficient at exposing, developing, and critiquing radiographs of the shoulder, lower extremity, pelvis, entire spine, sternum, and ribs in the campus lab. Prerequisite: Completion of RDTK 1503 and concurrent enrollment in RDTK 1583. Additional Fee.

RDTK 1590
Clinical Education I
This course provides clinical experience in the radiology department and is to be taken during the spring semester. Students refine positioning and critique skills learned in RDTK 1503, RDTK 1583, and RDTK 1584. Under supervision in the clinical setting, students will be able to competently perform routine diagnostic imaging of the chest, abdomen, extremities, and spines. Students will be expected to pass a competency-based imaging test at the end of the semester. Prerequisites: Completion of RDTK 1503 and concurrent enrollment in RDTK 1583 and RDTK 1584.
RDTK 1620 (3 cr.)
Radiation Biology and Protection
Upon completion of this course, students will be able to identify and discuss sources, mechanisms, and types of biological effects caused by irradiation, governmental regulations pertaining to radiation, medical dosage levels, and methods of effective radiation protection for patients and personnel. The student also will be able to identify the methods of radiation detection and measurement and manipulate the units used to calculate radiation exposure. Prerequisites: First-year radiography status and completion of RDTK 1503.

RDTK 1683 (3 cr.)
Radiographic Positioning II
Students build on skills learned in RDTK 1583 and cover the anatomy, position, and radiographic demonstration of the gastrointestinal (alimentary canal) system, the genitourinary system, the biliary system, the male/female reproductive system, and an overview of other contrast procedures. Students demonstrate the ability to competently perform examinations from these categories along with appropriate film critique exercises and the safe use of fluoroscopy including C-arm procedures. Students also identify and describe the characteristics of various contrast media, radiologic pharmaceuticals, contrast reactions, and the responsibilities of the radiographer in such situations will be covered. Students also will complete IV training. Prerequisites: Completion of RDTK 1583 and RDTK 1584.

RDTK 1684 (1 cr.)
Radiographic Lab II
A course to be taken concurrently with RDTK 1683. Upon successful completion of this course, students should be able to perform fluoroscopic, gastrointestinal, genitourinary, and biliary procedures in a competent manner through the simulated applications. Prerequisites: Completion of RDTK 1583 and RDTK 1584. Additional Fee.

RDTK 1713 (4 cr.)
Clinical Education II
This is a clinical experience in the radiology department. The course is to be taken during Summer Session I. Students refine positioning skills previously learned and positioning learned in RDTK 1683. Under supervision in the clinical setting, the student will be able to competently perform routine diagnostic imaging of extremity, spines, chest, and abdominal work. In addition, 20 hours of shift work after 4 p.m. or on weekends is required. The student will be expected to pass a competency-based imaging test at the end of the semester. Prerequisites: Completion of RDTK 1503, RDTK 1583, and RDTK 1683.

RDTK 2510 (8 cr.)
Clinical Education III
This is a clinical experience in the radiology environment. The course is to be taken during Fall II. Students refine skills learned previously in RDTK 2573 and RDTK 2583. Including patient skills, implementing new technical skills, further building their practical experience in fluoro diagnostic studies, and introducing skull work. Students demonstrate competency in gastrointestinal, urinary, trauma, and portable work. Students will be expected to pass a competency-based imaging test at the end of the semester. Prerequisites: Second-year radiography status and completion of RDTK 1713.

RDTK 2573 (3 cr.)
Radiographic Imaging and Technique
This is a course covering the physical theory of X-ray production and the physical and chemical theories of radiologic imaging. Students will become competent in analyzing and calculating the effects that various technical factors, accessories, and receptor systems have upon radiographic image qualities and the interrelationships each of these image qualities share. Prerequisite: Second-year radiography status.

RDTK 2574 (1 cr.)
Radiographic Lab III
A course to be taken concurrently with RDTK 2573. Through laboratory experiences, students actively demonstrate and experiment with the effects of various technical factors, accessories, and receptor systems on radiographic image qualities. Students learn how to use the equipment and measuring devices available in the energized lab, evaluate collected data, and apply the concepts covered in RDTK 2573. Prerequisite: Second-year radiography status. Additional Fee.

RDTK 2583 (3 cr.)
Radiographic Positioning III
This course covers anatomy and positioning of the cranial and facial bones as well as special procedures such as angiography and arthrography. Students demonstrate proficiency in knowledge of skull radiography and special procedures through didactic and competency testing. Prerequisites: Second-year radiography status, completion of RDTK 1683 and RDTK 1684. Additional Fee.

RDTK 2584 (1 cr.)
Radiographic Lab IV
This lab course is to be taken concurrently with RDTK 2583 and affords the student the opportunity to expose, develop, and critique skull radiographs in the radiographic laboratory for use at the clinical site. The student radiographer will be able to position, expose, and critique skull procedures as well as set up for and participate in special procedure exams. Prerequisite: Second-year radiography status. Additional Fee.

RDTK 2603 (2 cr.)
Survey of Technical Specialties
This course is an introduction to other modalities. Includes an overview of radiology, magnetic resonance, and other new modalities and trends in the diagnostic imaging arena. The student will be able to participate and function in each of these different modalities and have a basic understanding of each with an opportunity to apply knowledge in Clinical Education IV and V. Prerequisite: Second-year radiography status.

RDTK 2613 (7 cr.)
Clinical Education IV
A course to be taken during Spring II semester. Students practice all general radiographic and fluoroscopic procedures with emphasis on advanced fluoroscopic and skull techniques. Under supervision students will be applying technical knowledge learned in the classroom lab. Students will be expected to pass a competency-based imaging test at the end of the semester. Students demonstrate identified skills needed by a fully functional radiographer. Prerequisite: Second-year radiography status and completion of RDTK 2510.
RDTK 2623 (3 cr.)
Radiographic Physics, Quality Assurance, and Processing
This course is designed to allow students to develop skills in sensitometry, quality assurance tests, and standardizing numerous exposure variables. Students will be able to describe the chemistry of film development, identify automatic processing procedures used in contemporary radiology departments, and review basic electrical circuitry with special emphasis on the circuits of X-ray equipment. Prerequisite: Second-year radiography status, completion of RDTK 2573 and RDTK 2574.

RDTK 2624 (1 cr.)
Radiographic Lab V
A course to be taken concurrently with RDTK 2623. Students gain experience demonstrating electrical circuitry variables and their practical applications in the maintenance and testing of radiographic equipment, film processing, sensitometry, developing techniques, and problem solving through various laboratory experiments. Prerequisite: Second-year radiography status, completion of RDTK 2573 and RDTK 2574. Additional Fee.

RDTK 2630 (1 cr.)
Radiographic Pathology
This course is a survey of the radiographic demonstration of various diseases and is designed to introduce the process of radiologic diagnosis and its technical implications. Prerequisite: Second-year radiography status.

RDTK 2713 (3 cr.)
Clinical Education V
This course, which provides clinical experience in the radiology environment, is to be taken in Summer Session II. Students will be evaluated in all areas covered in Clinical Education IV, plus determination of correct technique, and ability to adapt and innovate under varied conditions. Students also may study mammography, ultrasonography, nuclear medicine, radiation therapy, computerized tomography, or other specialized fields of personal interest during a special rotation in one of these imaging modalities. Upon completion of these clinical hours, the student will be able to perform all required duties of an entry-level radiographer. The student will be expected to pass a competency-based imaging test at the end of the semester. Prerequisite: Completion of RDTK 2613.

RDTK 2900 (4 cr.)
Radiography Seminar
A course utilizing personal research, laboratory problems, and group discussion to synthesize knowledge, attitudes, and skills in professional radiographic practice. Students complete a comprehensive review of all prior courses in the radiography curriculum and further develop the analytical and test-taking skills necessary for successful completion of the American Registry of Radiologic Technologists' national certifying examination. Prerequisite: Radiography graduate standing. Additional Fee.

Religious Studies

RELI 1150 (3 cr.)
History and Philosophy of Islam
A general survey of the history and philosophy of the Islamic religion. Students acquire knowledge about and gain an understanding of Islamic history, Islamic principles and practices, Islamic law, Islamic relationships to other major religions, and Islam in the context of the modern world. (Cross-listed as HIST 1150.)

RELI 2110 (3 cr.)
Introduction to the Old Testament
A historical, archaeological, and literary survey of the Old Testament and its surrounding environment. During the course, students acquire a knowledge of the process and development of the Old Testament with its history, cultural environment, and literary development. Prerequisite: Completion of ENGL 0700 or ENGL 1001 or placement into ENGL 1010, or concurrently enrolled in ENGL 1010. (Cross-listed as HIST 1130.)

RELI 2150 (3 cr.)
New Testament Survey
An introduction to the historical, religious, and political setting of the Near East from Alexander the Great to the end of second century C.E. The class will investigate Judaism and Christianity in the Roman World. The New Testament will be viewed from within the context of the Greco-Roman civilization in which the early Christians lived. Prerequisite: Completion of ENGL 0700 or ENGL 1001 or placement into ENGL 1010, or concurrently enrolled in ENGL 1010. (Cross-listed as HIST 1135.)

Russian

RUSS 1010 (4 cr.)
First Year Russian I
An introduction to the Russian language. Students learn and use a systematic method of studying the fundamentals of Russian grammar with particular attention to mastering of the Cyrillic alphabet, pronunciation, simple intonation patterns, acquisition of the basic vocabulary, and reading and communicating on the elementary level.

RUSS 1020 (4 cr.)
First Year Russian II
A continuation of an introduction to the Russian language. Throughout the course, students develop speaking, listening, reading, writing, composition, and fundamental grammar skills. Prerequisite: Completion of RUSS 1010 or equivalent.

Safety and Environmental Health Technology

SAFE 1510 (3 cr.)
Fundamentals of Occupational Health and Safety I
An introduction to occupational health and safety as they relate to OSHA. Includes background and current status of occupational health and safety standards for supervisory personnel and persons with safety responsibility. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).
SAFE 1520
Guide to Voluntary Compliance
A study of Wyoming occupational health and safety programs and their rules and regulations. Topics include occupational health and environmental control, hazardous surface and materials, machine-guarding requirements, fire protection, and use of personal protection equipment. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

SAFE 1530
Safety and Health in Construction Activities
A study of the safety and health requirements in construction activities. Students identify the hazards as well as the legal requirements associated with construction. Topics include trenching and shoring, scaffolding, storage and use of explosives, demolition, signs, signals, and barricades. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

SAFE 1550
Mechanical Safeguarding
A study of the requirements for equipment guarding and design of such guards, including the legal requirements of OSHA and MSHA with regard to guarding. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

SAFE 1570
Safety and Health Technology
This course provides an overview of health sampling instruments such as sound level meters, personal sampling equipment, and carbon monoxide and other hazardous gases equipment, as well as the use of equipment used in safety and health training. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

SAFE 1700
Introduction to OSHA and MSHA Law
Students acquire/demonstrate knowledge of the Occupational Safety and Health Act, the Wyoming Occupational Health and Safety Act, the Rules of Practice and Procedure, the Mine Safety and Health Act, and how these laws relate to business and industry. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

SAFE 2510
Fundamentals of Occupational Health and Safety II
This course is a continuation of SAFE 1510. Students acquire knowledge about the control of illnesses and diseases in work environments where toxic materials, air contaminants, fumes, dusts, and other health detriments are encountered. Students receive training in the recognition of health hazards. Prerequisite: Completion of SAFE 1510.

SAFE 2520
Electrical Safety
A study of general and specific electrical standards as they apply to the Occupational Health and Safety Administration (OSHA) and the Mine Safety and Health Administration (MSHA). Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

SAFE 2530
Accident Reporting and Investigation
A study of the methods of investigating and reporting accidents and preventing recurrence. Workers' compensation and safety inspections are covered. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

SAFE 2540
Supervision and Human Relations
A study to understand how to deal with people in safety matters and obtain a basic understanding of safety supervision. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

SAFE 2560
Safety and Health in Material Handling
A course covering the hazards encountered in handling ordinary and hazardous materials by manual and mechanical methods. Material handling mishaps account for one-fourth of the industrial accidents. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

SAFE 2570
Health and Safety Management
A course for safety personnel. Training in organizing and managing a safety program. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

SAFE 2580
Safety and Health Aspects of Hazardous Substances
Students acquire/demonstrate knowledge of OSHA rules and regulations dealing with hazardous chemicals for industrial use, hazard communications, the right to know, labeling standards, shipping, storage, handling, and use of industrial hazardous substances. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

Social Work
SOWK 2000
Introduction to Social Work
This is an introductory-level course in which students examine social work and social welfare through the study of history, philosophy, ethics, values, methods, and fields of practice. Students also consider the person from an environmental perspective, the systems theory, the problem-solving process, and cultural diversity. Prerequisite: Completion of ENGL 0700 or ENGL 1001 (or equivalent placement test scores).

Sociology
SOC 1000
Sociological Principles
An introductory course in sociology in which students demonstrate an understanding of the basic principles involved in interpersonal relationships, social group behavior, and institutional structures ranging from small groups, networks, and families to bureaucracies, social stratification, and urban living. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

SOC 1080
Introduction to Women's Studies
An introduction to the key issues in women's studies. Students examine women's participation in and relationship to institutions of society. Processes and activities of women in such areas as labor force, art, literature, and politics are investigated. Prerequisites: Completion of DVST 0510 or ENGL 0510 and ENGL 0700 or ENGL 1001 (or equivalent placement test scores). (Cross-listed as HUMN 1080.)
SOC 1150  Sociology of Sport
Students examine sports in relationship to the social institutions of politics, economics, and religion. They also consider contemporary issues, including racial and gender inequality and controversies over violence and drugs. Students will be able to recognize that sports are a microcosm of society as a whole.

SOC 2120  Fundamentals of Aging and Human Development
This course is designed to introduce students to the field of gerontology and examine the concept that aging is a lifelong process which involves the interrelationship between an individual and the environment. Upon successful completion of this course, the student should be able to identify, explain, compare, and contrast the major physical, psychological, social, and environmental forces that influence an individual in later life. (General Psychology or Introduction to Sociology is recommended as a prerequisite. Prerequisites: Completion of DVST 0510 or ENGL 0510 and DVST 0630 or ENGL 0630 (or equivalent placement test scores).

SOC 2400  Criminology
An introductory overview of criminal behavior and its impact on the criminal justice system. Topics include theories of criminal behavior, examination and analysis of statistics on crime, explanations of crime causation, and the relationship between crime and the criminal justice process. Prerequisite: Completion of CRMJ 2120 or SOC 1000 or permission of instructor. (Cross-listed as CRMJ 2400.)

SOC 2410  Juvenile Delinquency
Students demonstrate an understanding of the causes of juvenile problems and analysis of theories and techniques of treatment with consideration for both potential and actual offenders. State and national juvenile correctional systems are investigated in class and in the field. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

Spanish
SPAN 1010  First Year Spanish I
In this introductory course, students incorporate basic grammatical structures into the context of conversation, composition, and reading in order to communicate about themselves. Students also gain an understanding of the Spanish-speaking culture.

SPAN 1020  First Year Spanish II
In this continuation of beginning Spanish, students increase their grammatical, conversational, compositional, and reading skills in order to communicate in real-life situations in the Spanish-speaking world. Prerequisite: Completion of SPAN 1010 or equivalent.

SPAN 2030  Second Year Spanish I
In this intermediate-level Spanish course, students review grammatical structures and refine their conversational, compositional, and reading skills. After an introduction to Spanish literature, students express their interpretations in writing and in conversation. Prerequisite: Completion of SPAN 1020 or equivalent.

SPAN 2041  Intermediate Spanish II
In this continuation of intermediate-level Spanish, students improve their self-expression skills in conversation as well as their reading comprehension. Students integrate intermediate-level grammatical structures into conversations and compositions and demonstrate an increased level of understanding of Spanish literature. Prerequisite: Completion of SPAN 2030, or equivalent.

SPAN 2070  Intensive Spanish Abroad
Students develop skills in speaking, reading, and writing Spanish by participating in a three-week intensive Spanish course/program abroad. As part of the program, students take part in a small class at a private language school. Students also develop an understanding of the host country’s culture through living with a local family for the duration of the program, visits to local museums, churches, markets and other cultural and historical sites; and travel outside of the host city during two of the three weekends spent in the host country. In addition, students may be requested to participate in volunteer programs at area orphanages, hospitals, and schools during the week. Students enrolling in this course participate in four monthly informative meetings prior to their study abroad. In order to receive credit for SPAN 2070 from LCCC, students must have completed SPAN 2030 at LCCC or have the instructor(s) written permission. UW students who complete SPAN 2030 should enroll in SPAN 3070 at UW. Besides tuition, students pay fees that include their round trip airfare, room and board with local family, classes, local tours, and other activities. Prerequisite: Completion of SPAN 2030 or permission of the instructor. Note: Prerequisite to participate is one semester college-level Spanish or equivalent. Prerequisite for SPAN 2070 is SPAN 2030 (third semester). The letter grade assigned at the Academia will be recorded directly to the LCCC transcript.

Speech – Pathology and Audiology
SPPA 1100  American Sign Language I
In this introductory course, students demonstrate basic syntactic knowledge, vocabulary, and conversational skills in American Sign Language (ASL). The direct experience method (using ASL with no voice) is used to enhance language acquisition. Students also become knowledgeable about the vital aspects of Deaf culture and community and the concept of Deafness as a cultural minority Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

SPPA 1110  American Sign Language II
A continuation of American Sign Language I, in which the direct experience method (ASL with no voice) is again used to enhance language acquisition. Successful students demonstrate increased syntactic knowledge, vocabulary, and conversational skills in ASL. Successful students also expand their understanding of Deaf culture and community and the concept of Deafness as a cultural minority. Prerequisite: Completion of SPPA 1100 or instructor approval.

SPPA 2100  American Sign Language III
A course in which students build ASL fluency while demonstrating their increased sign language vocabulary and practicing their conversational and storytelling skills. They also demonstrate improved receptive and expressive skills, begin to explore interpreting skills, and experience Deaf culture through interaction with the Deaf community. Prerequisite: Completion of SPPA 1110 with a grade of B or better, or instructor approval.
Statistics

STAT 2000
Statistics and the World
This course involves a study of statistical reasoning and methods as related to today's society. Successful students acquire knowledge and develop skills that enable them to critically evaluate experimental and observational studies as reported in the media and journal articles, display data using summary statistics and graphs, determine if a statistically significant relationship exists between two categorical variables, determine if a statistically significant relationship exists between two measurement variables, and use sample data to make decisions about the population from which the sample was drawn.

STAT 2010
Statistical Concepts—Business
This course involves a study of statistical concepts used in business applications. Successful students acquire knowledge and develop skills that enable them to calculate and interpret descriptive measures for data sets; describe the role of probability in statistical inference; describe the process of selecting a sample; determine sample size; construct confidence intervals; formulate an hypothesis, test it, and interpret the results; fit a regression line and test the correlation between two factors; perform tests for independence through contingency table analysis; identify the appropriate statistical technique to use in order to solve various business applications; and use statistical computer software. A specific calculator is required for this course. See a math instructor for acceptable models. Prerequisites: Completion of DVST 0520 or ENGL 0520 and ENGL 0700 or ENGL 1001 (or equivalent placement test scores), and MATH 1400.

STAT 2050
Fundamentals of Statistics
A course that presents central ideas and fundamental techniques of statistical inference on applications in the biological sciences. Students develop a command of probability models and inferences for means, variances and parameters of discrete distributions. Students also gain skills in using statistical computer packages. Credit cannot be earned in more than one of the following courses: STAT 2010, STAT 2050, and STAT 2070. Prerequisite: Successful completion of MATH 1000 or MATH 1400 or equivalent.

STAT 2070
Introductory Statistics for the Social Sciences
This course involves a study of statistical concepts used in social science applications. Successful students acquire knowledge and develop skills that enable them to compare and contrast descriptive and inferential statistics; calculate and interpret descriptive measures for data sets; describe the role of probability in statistical inference; construct confidence intervals; formulate an hypothesis, test it, and interpret the results; calculate and interpret the correlation between two factors; perform tests for independence through contingency table analysis; identify the appropriate statistical technique to use in order to solve various social science applications; and use statistical computer software. Prerequisites: Completion of DVST 0520 or ENGL 0520 and ENGL 0700 (or equivalent placement test scores), and a C or better in MATH 1000 or higher, or an equivalent test scores), and a C or better in MATH 1400 or equivalent.

Surgical Technology

SURG 1600
Introduction to Surgical Technology
Students are introduced to the profession of surgical technology. Students acquire knowledge of professional requirements and expectations, scope of practice, the surgical team, hospital and other health care delivery systems, the physical environment of surgery, hazards and safety practices, ethical and legal aspects, risk management and liability, credentialing, and professional organizations. In addition, students gain an understanding of the various roles for surgical technologists and specific tasks required to deliver surgical patient care before, during, and after a surgical procedure. Prerequisite: Acceptance into the surgical technology program. Additional Fee.

SURG 1610
Surgical Technology Theory
Students learn safe surgical practice. Students attain competence in aseptic technique, sterilization and disinfection, surgical equipment, instruments, and supplies. Students apply these concepts to surgical case management. Prerequisite: Admission to the surgical technology program.

SURG 1620
Surgical Technology Skills Lab I
Students practice entry-level surgical technology skills such as scrubbing, gowning, and gloving, and gloving, aseptic technique, instrument identification, preparation of the sterile field, safe sharps handling, procedure steps anticipation, and professional behaviors. Prerequisite: Admission to the surgical technology program. Additional Fee.

SURG 1630
Surgical Technology Skills Lab II
Students practice and develop intermediate and advanced level surgical technology skills with an emphasis on surgical specialty instrumentation, advanced anticipation skills, and professional behaviors. Students also develop critical thinking competence in aseptic practice by identifying, analyzing, and correcting errors in sterile technique. Prerequisite: All first-semester courses. Additional Fee.
SURG 1685  
Surgical Pharmacology  
(2 cr.)  
Students gain information necessary for safe medication practice in surgery. Students attain competence in the metric system, medication calculations, fundamental concepts of pharmacology, medication identification and handling, medications used in surgery and at the surgical site, and aspects of anesthesia. Prerequisite: Acceptance into the surgical technology program.

SURG 1750  
Surgical Procedures I  
(4 cr.)  
Students gain knowledge and skill in the theoretical aspects of surgical procedures pertinent to initial clinical experiences. Students identify anatomy, physiology, pathophysiology, diagnostic tests, equipment, instruments, supplies, procedural steps, and postoperative patient care concepts for surgical procedures in general, gastrointestinal, obstetrics, gynecology, urology, ophthalmology, and otorhinolaryngology. Prerequisites: All first-semester courses and concurrent enrollment in SURG 1850.

SURG 1850  
Surgical Technology Clinical I  
(5 cr.)  
Students correlate theory to practice in an actual surgical setting. Students apply previously learned foundational information and hands-on skills as they perform in the first scrub role in assigned surgical procedures under the supervision of clinical site preceptors. An emphasis is placed on developing competence in level one and level two procedures. Students rotate through various surgical specialties at multiple clinical sites. Prerequisites: All first-semester courses and concurrent enrollment in SURG 1750 and SURG 2810. Additional Fee.

SURG 2750  
Surgical Procedures II  
(4 cr.)  
Students gain knowledge and skill in the theoretical aspects of complex surgical procedures pertinent to advanced clinical experiences. Students identify anatomy, physiology, pathophysiology, diagnostic tests, equipment, instruments, supplies, procedural steps, and postoperative patient care concepts for surgical procedures in orthopedics, peripheral and cardiovascular, thoracic, and neurosurgery. Prerequisites: All first-semester courses, SURG 1750, and concurrent enrollment in SURG 1850.

SURG 2810  
Surgical Technology Clinical Synthesis I  
Surgical Technology Clinical Synthesis I  
(1 cr.)  
The assessment and analysis of the clinical experience. Students maintain accurate documentation of case experiences, research and present case studies, and prepare for the certification examination. Prerequisites: All first-semester courses and concurrent enrollment in SURG 1850.

SURG 2850  
Surgical Technology Clinical II  
(7 cr.)  
Students continue to correlate theory to practice in an actual surgical setting. Students apply previously learned foundational information and hands-on skills as they perform in the first scrub role in more complex surgical procedures under the supervision of clinical site preceptors. An emphasis is placed on increasing competence in level one procedures and developing competence in level two and level three procedures as available. Students continue to rotate through various surgical specialties at multiple clinical sites. Prerequisites: All second-semester courses and concurrent enrollment in SURG 2895. Additional Fee.

SURG 2895  
Surgical Technology Clinical Synthesis II  
(1 cr.)  
Continuing assessment and analysis of the clinical experience with an emphasis on advanced practice specialties. Students maintain accurate documentation of case experiences, research and present case studies, and prepare for the certification examination. Prerequisites: All second-semester courses and concurrent enrollment in SURG 2850.

SURG 2896  
Surgical Technology Capstone  
(1 cr.)  
Students analyze historical and current trends in surgical technology education. Students research the history and development of the profession of surgical technology and evaluate various education models. Students utilize their professional practice experience to build a predictive model of the future of surgical technology education, clinical practice, and career advancement. This course is a capstone experience for Certified Surgical Technologists who are pursuing degree completion. Prerequisite: Permission of the Surgical Technology program director. Additional Fee.

THEA 1000  
Introduction to Theater  
(3 cr.)  
A general survey of the various aspects of the theater including plays and playwrights, directing and acting, artists and technicians that follows the development of theater from Greek ritual to contemporary absurdity. Students gain knowledge about the origins of theater, the changes the physical and dramatic theater have undergone, and the historical and philosophical contexts of Western theater. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

THEA 1100  
Beginning Acting  
(3 cr.)  
An introductory course involving the task of the actor with development through group improvisation and pantomime, characterization, and play analysis. Prerequisite: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score).

THEA 2000  
Theatre Production  
(3 cr.)  
A course involving participation in a theatrical production. Students either perform in the production or work behind the scenes. Students demonstrate professionalism and work with others to achieve a polished production. Performances are required; performers are cast based on an audition. May be repeated for up to 12 credit hours.

THEA 2100  
Acting II  
(3 cr.)  
A course to develop the actor's voice and body for characterization and character interaction through performance of scenes. Prerequisites: Completion of DVST 0510 or ENGL 0510 (or equivalent placement test score), and THEA 1100.

THEA 2120  
Oral Interpretation  
(3 cr.)  
A study of the content and form of prose, poetry, and drama as they relate to performance skills. Prerequisites: Completion of DVST 0510 or ENGL 0510 and ENGL 0700 or ENGL 1001 (or equivalent placement test scores).

THEA 2160  
Introduction to Stage Make-Up  
(3 cr.)  
Introduction to Stage Make-Up is designed for the beginning student. Students demonstrate knowledge of basic theatrical make-up principles and practices. They implement practical problem-solving and critical thinking skills as they apply to stage make-up techniques and theory.
THEA 2220  (3 cr.)
Stagecraft
An introduction to the various aspects of stagecraft. Prerequisite: Completion of DVST 0900 or MATH 0900 (or equivalent placement test score).

Wind Energy

WTT 1000  (3 cr.)
Introduction to Wind Energy
This course introduces students to the fundamental concepts of turning energy from the wind into electricity. Students explore the history and projected future of producing energy from the wind. Students identify the various scales of wind turbines, design types, and their major subcomponents. Students perform a general analysis of sites where wind turbine installation is developing, along with analyzing federal and state policy regarding the production of power from large- and small-scale wind turbines.

WTT 1100  (2 cr.)
Climb Safety and Tower Rescue Training
Students identify the safety hazards associated with wind turbine maintenance activities. They also explain and demonstrate the safe practices required to mitigate those hazards and respond to tower rescue situations. (S/U grade only) Additional Fee.

Zoology

ZOO 2010  (4 cr.)
Anatomy and Physiology I
The first semester of a two-semester course in which the student explores the structure and function of the human body. Students examine the following systems: integumentary, skeletal, muscular, nervous systems, and the special senses. Students develop vocabulary including histology, directional, and anatomical terms, and explore homeostatic and functional mechanisms from a molecular, cellular, and organ level. Prerequisite: Successful completion (grade of C or higher) of MATH 0920 (or equivalent placement test score). It is recommended that students complete BIOL 1010 and/or CHEM 1000 prior to enrolling in ZOO 2010. Additional Fee.

ZOO 2015  (4 cr.)
Human Anatomy
A study of the structure of the human body. Each organ system is considered from a basis of tissue and gross structure, attention is also given to the impact of the study of human anatomy upon history and upon modern society. Typically, this course has three hours of lecture and three hours of laboratory per week. Prerequisite: Completion of MATH 0920 (or equivalent placement test score). It is recommended that students complete BIOL 1010 or CHEM 1000 prior to enrolling in ZOO 2015. Additional Fee.

ZOO 2020  (4 cr.)
Anatomy and Physiology II
The second semester of a two-semester course in which the student continues to explore the structure and function of the human body. During the second semester, students examine the following organ systems: endocrine, lymphatic and immune, cardiovascular, respiratory, digestive, urinary, and reproductive. Additionally, students expand their vocabulary of histology, directional, and anatomical terms and acquire knowledge in homeostatic and functional mechanisms from a molecular, cellular, and organ level. Prerequisite: Successful completion (grade of C or higher) of ZOO 2010. Additional Fee.

ZOO 2025  (4 cr.)
Human Physiology
The study of function in the human organism. Students acquire knowledge in homeostatic and functional mechanisms covered from a molecular, cellular, and organ level. Typically, this course has three hours of lecture and three hours of laboratory per week. Prerequisite: Completion of ZOO 2015. Additional Fee.

ZOO 2025  (4 cr.)
ZOO 2450  (3 cr.)
Wildlife Management
An introductory course in wildlife management. Students will acquire knowledge in determining wildlife values, communities and habitats, population analysis and management, ecosystem and fisheries management, biopolitics, economics, and current issues in resource management. Prerequisite: Completion of BIOL 1010.
Administration and Full-Time Faculty


Mohamed Chakhad, Instructor, Physics/Mathematics/Engineering. B.S., University of Mary Washington 2002; Ph.D., University of Texas 2009.

Eileen Chase, Instructor, Nursing. B.S.N., University of Illinois 1972; M.S.N., University of Utah 1976.


Oing Du, Instructor, Chemistry. B.S., Ocean University of China 1990; M.S., Research Center for Eco-Environmental Sciences Academia Sinica 1993; Ph.D., Research Center for Eco-Environmental Sciences Academia Sinica 1997; Ph.D., Luleå University of Technology 1997.


Elizabeth Goodwin, Instructor, Nursing. A.S., Rancho Santiago/Santa Ana Community College 1989; B.S., Purdue University 1999; M.S.N., University of Wyoming 2004.


Jennifer Hargrett, Dean, Enrollment Management. B.A., Fort Hays State University 1997; M.S., Fort Hays State University 1999.

Jerry Harris, Director, Contracting and Procurement. B.S., University of Wyoming 1980.


Carol Hoglund, Vice President, Administration and Finance. B.S., Regis University 1989; M.S., Colorado State University 1998.


Phyllis Jones, Dean, Education, Natural and Social Sciences. B.S., Western Illinois University 1973; M.A., University of South Dakota 1978.


Marie Koenings, Instructor, Nursing. B.S.N., University of Wisconsin 1972; M.S.N., Catholic University of America 1979.


Peggie Kroll-Hotz, Assistant Vice President, Human Resources. B.S., University of South Dakota 1987; M.A., University of South Dakota 1990.


Richard Laidlaw, Instructor, Chemistry/Mathematics. B.S., Cleveland State University 1966; M.S., University of Mississippi 1970; Ph.D., University of Mississippi 1987.


Sabrina Lane, Associate Executive Director, LCCC Foundation. A.A.S., Parks Junior College 1990; B.S., University of Phoenix 1995.

Char Langaa, Instructor, Physical Education. B.S., Chadron State College 1983; M.A., University of Northern Colorado 1987.


Dianne Lowe-Carpenter, Director, Counseling and Campus Wellness. B.S.W., University of Wyoming 1995; M.S.W., University of Wyoming 2004.


Tim Macnamara, Director, Physical Plant. B.S.C.E., University of Colorado 1970; M.S., University of Colorado 1975.


Melissa McAllister, Instructor, English as a Second Language. B.A., Emory University 1993; M.S., Georgia State University 1997.


Molly McNeely, Instructor, Nursing. B.S.N., University of Wyoming 2001; M.S.W., Colorado State University 2007.


Scott Moncrief, Instructor, Education. B.A., University of Nebraska-Lincoln 1992; M.S., University of Nebraska-Lincoln 1994.


Clayton Naomi, Program Director/Instructor, Diagnostic Medical Sonography. A.A., North Idaho College 1993; B.A., University of Northern Colorado 1997; M.S., Midwestern State University 2005.


Ronald Pulse, Instructor, Agriculture. B.S., University of Wyoming 1972; M.S., University of Wyoming 1977.

Kimberly Raska, Instructor, Nursing. B.S., University of Wyoming 1993; B.S.N., University of Wyoming 2001; M.S., University of Wyoming 2003.


Jennifer Rigg, Dean, Campus Living and Learning. B.S., University of Wyoming 1997; M.S., University of Wyoming 1999.


Valerie Rodekohr, Program Director, Dental Hygiene. A.S., Sheridan College 1975; B.S., Weber State University 1992; M.S., Lesley College 1998.

Meredith Roehrs, Instructor, Zoology/Biology. A.A., Ohio Wesleyan University 2004; M.S., Oklahoma State University 2008.
<table>
<thead>
<tr>
<th>Name</th>
<th>Title/Role</th>
<th>Education/Training</th>
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<tbody>
<tr>
<td>Catherine Rogers</td>
<td>Instructor, Computer Information Systems</td>
<td>B.S., University of Wyoming 1985; M.S., University of Wyoming 1990</td>
</tr>
<tr>
<td>John Sauder</td>
<td>Instructor, Psychology</td>
<td>B.A., University of Kansas 1970; M.S., Kansas State University 1974; Ph.D., University of Florida 1981</td>
</tr>
<tr>
<td>Rosalind Schilke</td>
<td>Instructor, Mass Media/Multimedia</td>
<td>B.A., Texas Christian University 1972; M.A., University of Wyoming 1980</td>
</tr>
<tr>
<td>Dennis Schroeder</td>
<td>Director, Scholarships/Financial Aid</td>
<td>B.A.A., University of Iowa 1975</td>
</tr>
<tr>
<td>Ann Shelby</td>
<td>Instructor, Education</td>
<td>A.A.S., Pikes Peak Community College 1984; B.A., University of Northern Colorado 1987; M.A., University of Colorado 1993</td>
</tr>
<tr>
<td>Jeffrey Shmidl</td>
<td>Instructor, Economics/Finance</td>
<td>B.A.S., Casper College 1991; B.S., University of Wyoming 1998; M.S., University of Wyoming 2000</td>
</tr>
<tr>
<td>Scott Smidt</td>
<td>Instructor, Life Sciences</td>
<td>Albion County Campus; B.S., Purdue University 1991; M.S. University of Alaska Fairbanks 1997; D.A., Idaho State University 2008</td>
</tr>
<tr>
<td>Katherine Snyder</td>
<td>Program Director/Instructor, Surgical Technology</td>
<td>B.S., Northern State University 1997</td>
</tr>
<tr>
<td>Lynn Stalnaker</td>
<td>Dean, Albany County Campus</td>
<td>A.A., Allen County Community College 1971; B.A., Pittsburg State University 1973; M.S., Pittsburg State University 1986, Ph.D., University of Northern Colorado 1994</td>
</tr>
<tr>
<td>Elizabeth Stich</td>
<td>Dean, Health Sciences and Wellness</td>
<td>B.A.A., Emory University 1983; M.S., Cardinal Stritch College 1986; Ph.D., Capella University 2008</td>
</tr>
<tr>
<td>Crystal Stratton</td>
<td>Instructor, Communication</td>
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<tr>
<td>Gerard James Steeleman</td>
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<td>Lawrence Struempf</td>
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<td>Systems, Albany County Campus; B.S., University of Wyoming 1998; M.S., Regis University 2005</td>
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<td>Maggie Swanson</td>
<td>Librarian</td>
<td>B.S., University of Oregon 1999; M.A., University of Arizona 2005</td>
</tr>
<tr>
<td>Leif Swanson</td>
<td>Instructor, English</td>
<td>B.A., University of Northern Iowa 1987; M.A., University of Northern Colorado 1990</td>
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<td>Maryellen Tast</td>
<td>Dean, Lifelong Learning Center</td>
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</tr>
<tr>
<td>Celia Teague</td>
<td>Instructor, Nursing</td>
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<tr>
<td>Marlene Tignor</td>
<td>Vice President of Instruction</td>
<td>B.A., St. Mary of the Plains College 1969; M.S., Pittsburg State University 1985; Ed.D., Kansas State University 1999</td>
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<tr>
<td>Stanley Torvik</td>
<td>Vice President, Workforce and Community Development</td>
<td>B.A., University of Montana 1963; M.S.W., University of Iowa 1967; M.P.A., University of Northern Colorado 1975</td>
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<tr>
<td>Brian Uzpen</td>
<td>Instructor, Astronomy/Physics</td>
<td>B.S., University of Minnesota 2001; M.S., Minnesota State University 2003; Ph.D., University of Wyoming 2009</td>
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<tr>
<td>Robert Van Cleave</td>
<td>Instructor, Computer Information Systems</td>
<td>B.S., University of Wyoming 1985; M.S., University of Wyoming 1991</td>
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<tr>
<td>Larry Van Why</td>
<td>Instructor, Diesel Technology Certificate</td>
<td>Western Nebraska Vo-Tech 1971; Master Medium/Heavy Truck Technician, National Institute for Automotive Service Excellence 1996</td>
</tr>
<tr>
<td>Kay Wagner</td>
<td>Instructor, Nursing</td>
<td>B.S., University of Wyoming 1986; B.S.N., Creighton University 1988; M.S.N., University of Colorado 2002; Ph.D., University of Colorado 2008</td>
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**Educational Services Staff**

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<thead>
<tr>
<th>Name</th>
<th>Title/Role</th>
<th>Education/Training</th>
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<tbody>
<tr>
<td>Brenda Abbott</td>
<td>Manager, High School Programs</td>
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</tr>
<tr>
<td>Sherry Acheson</td>
<td>Coordinator, Eastern Laramie County</td>
<td></td>
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<tr>
<td>Kim Adams</td>
<td>Secretary, Instructional Services</td>
<td></td>
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<tr>
<td>Holly Allison</td>
<td>Director, Admissions</td>
<td></td>
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<tr>
<td>Mary Aragon</td>
<td>Admissions Technician</td>
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<tr>
<td>Teresa Authier</td>
<td>Library Technician</td>
<td>Interlibrary Loan/Public Services</td>
</tr>
<tr>
<td>Pam Babcock</td>
<td>Manager, Grounds Maintenance</td>
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<tr>
<td>Ron Bailey</td>
<td>Director, Campus Safety and Security</td>
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<tr>
<td>Ed Bales</td>
<td>Manager, Facilities Operations</td>
<td></td>
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<tr>
<td>Les Balsiger</td>
<td>Director, Center for Learning Technologies</td>
<td></td>
</tr>
<tr>
<td>Janine Bangerter</td>
<td>Administrative Assistant, Albany County Campus</td>
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</tr>
<tr>
<td>Bradley Barker III</td>
<td>Admissions Representative</td>
<td></td>
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<tr>
<td>Jeff Bartels</td>
<td>Night Setup Assistant/Custodian</td>
<td></td>
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<tr>
<td>Michelle Beahm</td>
<td>Accounting Technician, Receivables</td>
<td></td>
</tr>
<tr>
<td>Kim Bechtle</td>
<td>Supervisor, Mail, Shipping/Receiving and Warehouse</td>
<td></td>
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<tr>
<td>Terry Benson</td>
<td>Custodian</td>
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</tbody>
</table>
Rick Bonnema, Senior Maintenance Technician, Architectural
Vicki Boreing, Assistant to the President/Secretary, Board of Trustees
Gregg Boughton, Athletic Trainer
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Please complete this form to have an official transcript sent to LCCC

Please send an official transcript to: Office of Admissions, Laramie County Community College
1400 East College Drive, Cheyenne, Wyoming 82007

NAME: LAST FIRST MIDDLE MAIDEN

CURRENT ADDRESS: (Number and Street) CITY STATE ZIP

LAST YEAR ENROLLED SOCIAL SECURITY NUMBER BIRTHDATE

STUDENT SIGNATURE

Instructions: All persons applying to enter college for the first time must request an official transcript from the high school from which they graduated. TRANSFER STUDENTS applying to LCCC must request official transcripts from all colleges previously attended.

One Key to Your College Success –

LCCC Student Housing!

Interested? Complete this form and return it today! You’ll receive a housing application and further information.

Space is limited, so don’t delay!

I am interested in living in the Residence Hall: ☐ Fall 20___ ☐ Spring 20___ ☐ Summer 20___

PLEASE PRINT

Name __________________________________________________________
Address _________________________________________________________ Telephone (___)______________
City __________________________ State___________________________ ZIP___________

Are You Interested in Financial Aid?

Financial aid is available at Laramie County Community College. Interested? Just fill out this form and return it as soon as possible. You’ll receive a financial aid packet.

I plan to enter LCCC ☐ Fall 20___ ☐ Spring 20___ ☐ Summer 20___

PLEASE PRINT

Name __________________________________________________________
Address _________________________________________________________ Telephone (___)______________
City __________________________ State___________________________ ZIP___________
Place in envelope and mail to the last school you attended.

Place in envelope and mail this request for housing information to:

Laramie County Community College
1400 E. College Drive
Cheyenne, Wyoming 82007

Place in envelope and mail this request for financial aid information to:

Laramie County Community College
1400 E. College Drive
Cheyenne, Wyoming 82007