School	Health Sciences and Wellness
Program Area	Health Sciences Meta Major
Major Programs	A.S. Health Sciences (62 credits)
Review Period	Fall 2012 to Fall 2017
Self-Study Developed	AY 2017-2018
Review Status	Academic Standards Accepted the Program Review Without Contingencies
Program Leaders	Terry Harper
Committee Chair	Cindy Henning
Academic Standards Program Review Subcommittee Reviewers	DeeJaay Beals: Faculty, BATS Daniel Powell: Academic Dean, Arts & Humanities Kim Bender: AVP – Institutional Effectiveness Erin Bauer: Chair of SLA Committee Alex Barker: Student Services Representative Sabrina Lane: Administration and Finance Representative Lanae McDonald: 18-19 APR – Equine Science

A. Brief Overview of Program

History of the Program

The Health Sciences Program was created in the fall of 2014 and implemented in fall 2015 to replace the General Studies in Science/Health Science program which was considered too broad in its scope. The development of the program was based on the need to create more clearly defined pathways for students through establishment of a career field meta-major, state mandates to reduce total credits required for all degrees, state and LCCC requirements to develop articulations with other bachelor degree granting institutions, and the adoption of new Competency-Based General Education Requirements. The Health Science Program directors met and formalized the Health Sciences A.S. degree in the spring of 2015.

As a meta-major, the Health Sciences generalist curriculum provides the core courses needed for a student to easily move into various specialized healthcare career pathways. It supports flexibility into the health science AAS or AS degrees and specifically includes these foundational core courses; Medical Terminology, Pathophysiology, Health Care Ethics, Human Body Systems, and Nutrition. The meta major concept was adopted after review of the Complete College. America literature which identified best practices with guided pathways for student success by introducing students to the healthcare language in their first semester.

Development of the revised program was completed after multiple meetings with all of the program directors of the health science programs, data to support the need for a meta-major, and meetings with the science faculty to determine the appropriate lab science courses for health science majors. The final program proposal was vetted and approved through the Academic Standards Committee, the LCCC committee that promotes and maintains high academic curriculum standards through curricula approval. Currently, the Dean of the School of Health Sciences and Wellness oversees the program, with support from the program directors within the school.

Instructional Activity and Performance

As a meta-major, the A.S. in Health Sciences primarily serves the Health Science Wellness program students and offers them the opportunity to complete prerequisite courses while awaiting acceptance into their chosen program. Students that are not accepted into their specific health sciences program cohort may then apply to another program or complete the A.S. in Health Sciences. Because this

program was a shared degree in the past, the General Studies in Science/Health Science program, the average number of graduates is combined in institutional data reporting on credentials awarded. On average from 2006-2015, there were 38 graduates of the combined program. (see Program Grouping History. Matrix 2017 attachment). The data shows that the number of graduates for the combined A.S. General Studies degree continues to decrease each year as expected. The majority of the students that had declared the A.S. General Studies degree as their major prior to discontinuation of the degree offering in 2015-16, were either accepted into specific programs, declared the new A.S. in Health Sciences degree as their new major, declared another degree as their major, or transferred to another college.

There are currently over 1000 students that declared the A.S. Health Science degree on average from its inception. There were 10 graduates of the A.S. in Health Sciences degree in the 2016-17 academic year. The annual FTE average since 2014-15 for the degree is 94.79. Course success rates vary, however since 2013, there was an average success rate of 81.40% across all of the health sciences core courses with an increase in success each year over the last three years.

B. Program Achievements Over the Review Period

Since 2013 we have offered:

- 59 sections of HLTK 1200, Medical Terminology, with an overall success rate of 84.56%,
- 21 sections of HLTK 1210, Human Body Systems, all delivered in an online format and with an overall success rate of 85.86%,
- 24 sections of HLTK 2300, Health Care Ethics, with an overall success rate of 84.60%,
- 18 sections of HLTK 2510, Pathophysiology, with an overall success rate of 94.85%, and
- 65 sections of HOEC 1140, Nutrition, with an overall success rate of 80.42%

Across all Health Science core courses there was an 86.06% success rate. (see attached HS Summary Data)

Most sections of the HS core courses are offered online and online success rates have improved over the last few years with an average greater than 84% for all core courses except for Nutrition with an average online success rate of 79.31%. (see attached HS Core Success by Modality doc)

A significant achievement with the delivery of so many service courses for the health science programs is the establishment of lead faculty to assist with the overall coordination of each core course. This strategy assists with maintenance of the requirements noted in the Master Course of Record, MCOR, and cross collaboration with full-time and part-time faculty on strategies to improve the course design and outcomes.

The program received a 91 percentile rank over all other programs according to the most recent Program Analysis and Ranking Results for 2016-17. (see attached Program Grouping History. Matrix doc)

As the meta-major for the health science programs, annual marketing sessions are provided to introduce future students to healthcare careers and the academic programs available within the school. Groups of students that have attended these sessions included the Area Health Education Centers, AHEC, and the Gear Up program at LCCC.

C. Mission and Values

MISSION:

LCCC Mission Statement:
The mission of Laramie County Community College is to transform our students' lives through the power of inspired learning. We are all bound by a basic understanding that our students, regardless of how they arrive at LCCC, yearn for a better life by engaging in the process of acquiring knowledge. Thus, we are compelled to aid this transformation by offering diverse educational experiences designed to be inspirational for all those involved in the learning process. While we recognize our work is diverse, the entirety of the work we do is grounded in the four foundational elements of the comprehensive community college mission:

1. To prepare people to succeed academically in college-level learning
2. To engage our students in learning activities that will prepare and advance them through the pursuit of a baccalaureate degree
3. To develop individuals to enter or advance in productive, life-fulfilling occupations and professions
4. To enrich the communities we serve through activities that stimulate and sustain a healthy society and economy

Health Science Program Mission Statement:
The program's mission is to provide a general education core curriculum enhanced with health science related courses that allow a student the flexibility to move into various healthcare career pathways, most specifically within the School of Health Sciences and Wellness. This mission relates to the college's mission in that this program provides the foundation for students as they pursue their career aspirations. The need for health care personnel increases, with the U.S. Bureau of Labor Statistics indicating in their spring 2014 report that the Healthcare industry is projected to add more jobs than any other sector between 2012-2022. According to the Wyoming Department of Employment Research and Planning, healthcare practitioners and technical occupations will increase 16% from 2014 - 2024. This program offers the opportunity for students to explore health core courses that multiple healthcare professionals use as the foundation for their various career fields.

Through the A.A.S. or A.S. pathway, the H.S. degree prepares students to succeed academically in college-level learning through a well-developed core curriculum that introduces and reinforces basic health science and wellness concepts, engagement of our students in learning activities that will prepare them for life-fulfilling occupations in allied health fields such as sonography, radiography, etc., and enriches our community by supporting the need for well-educated students to sustain our healthy communities and healthcare industries.

Secondarily, the program allows a student interested in pursuing a bachelor's degree the opportunity to complete the A.S. in Health Sciences and matriculate to a four year degree institution. In fall 2017, a meeting held at the University of Wyoming with health science faculty determined that the current degree plan will not articulate. The next steps will be to determine revisions to the degree to allow it to serve as a meta-major, yet also fulfill the requirements of a two year transferrable degree.

VALUES:

Flexibility
As a meta major, the program strives to provide the key healthcare content and concepts to allow a student to advance into various health science programs and occupations.

Rigor
The programs values rigor of content within the core curriculum that will help provide students with the foundational concepts for all healthcare professions. Medical Terminology, Pathophysiology, Health Care Ethics, Human Body Systems, and Nutrition courses are a key foundation to a student's pathway into a healthcare career.

Focus on student success
The program strives to ensure that students experience the highest level of quality in the delivery of the core curriculum. Lead faculty for the core courses assure that there is consistency in delivery of the content across multiple sections. Course success rates and student questionnaires are evaluated to measure and analyze student success. The dean's classroom observations provide another quality check of instruction.

Cross collaboration across disciplines
The core curriculum instruction within the program is provided by both full-time and part-time faculty with various discipline specific healthcare backgrounds. This dynamic, multi-discipline, instructional approach assures that students experience an appreciation of the cross-discipline teams currently employed within the healthcare industry.

D. Program Competencies and Outcomes

In all of the HLTK and HOEC core courses, problem solving is identified as the institutional competency which will be used for common course assessment data. For the meta-major, two student learning competencies focus on problem solving but within different contexts. The competencies chosen represent the foundational knowledge necessary for a student to be successful in any specific Health Science degree pathway.

Learning Competency 1: Students will recognize and apply appropriate medical terminology within a medical context.

Learning Competency 2: Students will identify disease based on symptomatology and explain disease processes.

Operational Outcome 1: Students in the Health Sciences A.S. degree will matriculate into a specific health science program within the school.

Operational Outcome 2: The Health Science A.S. degree will articulate with at least one four year degree institution.

One example of how the program's learning competencies align with program values.

The competency #1: Students will recognize and apply appropriate medical terminology within a medical context aligns with the concept that the health science meta major prepares students to

specialize and focus on core learning competencies across the range of healthcare specialities and for the other core courses Pathophysiology, Human Body Systems, Healthcare Ethics, and Nutrition. The Healthcare field requires the use of a standardized language to allow efficiency in oral and written communications. The rigor of the program core courses is such that students will be well prepared with their newly acquired medical language to progress into their next core course and chosen career field.

One example of how the program's operational outcomes align with program values.

The operational outcome #1: Students in the Health Sciences A.S. degree will matriculate into a specific health science program within the school, aligns with the program values of focus on student success in their core courses and subsequently their specific health science degree. The rigor of the coursework at the foundational level prepares students for future discipline specific coursework and this is represented through the graduation rate for the various AAS degree programs which typically averages 90% or higher. Another example that deserves highlighting is the emphasis in healthcare today on the 'team approach' with multiple professionals each having a role in the care of a patient. The cross collaboration and perspectives across healthcare disciplines provided through the utilization of varied credentialed professionals/faculty in the delivery of instruction in core courses assures that students understand the unique healthcare disciplines and the common competencies to be mastered.

E. Abbreviated Summary of Program Data (KPIs)

Program Demand:
The meta-major program demonstrates strong performance in this category as it is the feeder program for the other specialized Health Science specialized programs. It has a three-year average annual FTE of 95 and a three-year average for number of participants enrolled of 783.

Student Success:
The program operates in the high range for the number of degrees/certificates generated with a three-year average of 32. The high rating for is likely due to the students who completed the degree requirements while awaiting entrance into their specialized program. The program's graduation rate for concentrators is low with a three-year average of just 7%. The occurs because most students move into the specialized HS programs, and there is not a clearly defined program pathway for matriculation.

However the high rating for this measure (B.4&5) is questionable when there are over 1000 students enrolled and only 52 on average per year matriculate. This is an area for renewed focus in the future with establishment of plans to funnel the students to other programs within the college as well as revise the degree plan.

Transfer Preparation:
The program does well in the transfer preparation category with its number of concentrators matriculating to a university at a three-year average of 53%. There are students that move to the university after concentration within the HS Degree, after completing at least 12 credits and not getting into the HS program of choice, and the program is rated highly here. However the high rating for this measure is questionable when there are over 1000 students enrolled and only 52 on average per year matriculate. This is an area for renewed focus in the future with establishment of plans to funnel the students to other programs within the college as well as revise the degree plan.

Efficiency:
The program's average section fill rate is quite strong with a three-year average of 72%. However, it demonstrates average performance for both its average credits to completion and average time to completion with three-year averages of 61 credits and 4 semesters respectively. Section fill rates are a positive point for the meta-major as there are core courses that several HS specialized programs need. HS students may need to repeat courses like A&P and that affects the efficiency measures related to average credits and time to completion. Although cost data for this new program was unavailable, the HS meta-major has some built in efficiencies with full-time faculty as core course leads, and an experienced cohort of adjunct faculty that teach the majority of courses for a cost savings to the college.

F. Accomplishing the Program's Previous Action Plan Goals

This is the first APR for the HS degree since its creation in 2014-15. The program will use the insights as a result of this APR to develop action plans that will be reported on in the next Academic Program Review.

G. Summary of Review Action Plan Goals

The program will develop two or more action plans that respond to areas identified for improvement in regard to the standards, and/or respond to emerging opportunities once that process is complete.

Action Plan items:

1) Monitor and track A&P course success rates each semester with a standing subcommittee formed to evaluate all data and make recommendations for improvements.

2) With advisory committee support, modify the HS degree to allow for it to articulate to a Bachelor in Health Care Administration degree.

H. Identified Strengths, Concerns, Opportunities, and Challenges for Student Learning and Program Operations Resulting from the Review Process

a) Programs provide a bullet listing of its strengths, concerns, opportunities, and challenges for *student learning*.

Strengths:

- In general there are high-ranking rates of success for the HS core courses
- There are high fill rates with HS core courses
- There are lead faculty assigned to all HS core courses that provide consistency and oversight with the courses and their delivery across FT and PT faculty
- There has been a process in place through program director meetings to review the program. That process has involved M&S faculty and advisors, as well as the internal Academic Standards committee.

Concerns:

- A curriculum review is needed to assure the degree pathway maintains the necessary meta-major requirements while looking to offer a more robust and transferrable degree for matriculation
- The A&P courses will need to be reviewed to assure the success rates hoped for with the changes implemented in fall of 2017 will be realized.

Opportunities:

- With a revised curriculum in the future, there may be opportunities to utilize other current specialized program courses to be added to the core.
- An advisory committee with broadened representation of stakeholder will be formed.
- A curriculum map will need to be developed after all revisions are completed.

Challenges:

- Meeting with general education faculty to collaborate on constructive review of courses to facilitate student success can be difficult in finding meeting times and course ownership and content expertise issues.
- Maintaining current faculty in lead core course roles for at least 2 years for consistence

b) Programs provide a bullet listing of its strengths, concerns, opportunities, and challenges for *program operations*.

Strengths:

- There are over 1000 students on average enrolled in the program annually.
- The core HS courses for the program have a consistently high fill rate and course success rates.
- There is a well-developed system for HS core course leads that provide oversight and consistency with the delivery of instruction and improvements needed, including sustaining the rigor, student success and cross collaboration of content experts.

Concerns:

- Management of the enrolled student funnel for students that didn't get accepted into their program of choice.
- Articulation to a bachelor degree for a specific health science field.

Opportunities:

- Development of a revised program that keeps the needed HS core courses and other requirements for specialized program within HSW, but offers a practical, viable, and future specific job entry degree plan that is transferrable to a bachelor degree granting institution.

Challenges:

- There is not a designated program director for this program, and so by default it is the dean. There should be consideration of a director for the future.
- Development of mechanisms to improve enrolled student tracking and follow up for advising and funneling into other college degrees when the student has not been accepted into their program of choice.

I. Continuous Improvement: Follow-Up Reporting and Planning for Strengthening Program Performance

To be consistent with its continuous improvement processes, LCCC includes follow-up action planning in its academic program review activities. Program review includes a peer-review step where an Academic Standards Subcommittee for Program Review rates program performance using an Academic Program Review Rubric. Programs perform well on the majority of self-study sections, but occasionally the rubric rating identifies a few areas that need additional attention. For these situations, the program review

process includes a structured follow-up planning phase to support program strengthening of these areas.

In early May, after programs have had their self-studies peer reviewed, the Academic Standards Committee notifies those programs that are to participate in additional continuous improvement planning. Academic Standards accepted the Health Sciences and Wellness program review without contingencies, so it was not required to submit follow-up action planning.