

BRYAN COLLEGE OF HEALTH SCIENCES

SCHOOL OF HEALTHCARE STUDIES

Humanities and Sciences

Assessment of Student Learning Annual Plan

2025-2026

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Statements of Purpose/Mission/Philosophy

Bryan College of Health Sciences Mission

The Mission of Bryan College of Health Sciences is to provide educational pathways in the health sciences grounded in academic excellence, clinical distinction and experiential learning through collaboration with Bryan Health and the health care community.

Bryan College of Health Sciences Goals

The goals of Bryan College of Health Sciences are to prepare graduates who:

- Qualify for diverse careers in healthcare, academic, or scientific environments
- Illustrate respect for their own and others' unique individualities
- Demonstrate professionalism in their field of study
- Practice life-long learning as a means of personal and professional growth
- Exhibit service-oriented citizenship within their communities

Philosophy Statements

Philosophy of General Education

The Philosophy of General Education of Bryan College of Health Sciences is built on the premise that education is more than a program of study. It is a life-long, interactive process that builds on previous experience and expands one's world view promoting a change in attitudes, beliefs, values and/or behaviors. General Education establishes a broad foundation of knowledge that is essential to the development of an educated person. Multidimensional, holistic growth of the individual is promoted through an integrated study of the Natural Sciences, Social Sciences, Communication, Mathematics, Humanities/Fine Arts, Health/Physical Education/Recreation and Business/Management. A core of General Education knowledge is fundamental to any area of study within Bryan College of Health Sciences. The educational process enables the graduate to think critically; communicate effectively both in written and oral forms; understand the forces of nature; participate as a contributing member of a culturally diverse, ever changing society; make ethical decisions; apply mathematical logic and reasoning skills; appreciate and recognize management as a response to economic and social factors; and value learning as a life-long process.

Philosophy of Biomedical Sciences Program

The faculty of Bryan College of Health Sciences, Biomedical Sciences Program, believes that: The baccalaureate degree program in biomedical sciences exists to prepare graduates to pursue graduate study in a wide range of health related fields which contribute directly and indirectly to the delivery of quality health care and services. Educational preparation for advanced study in a health related field is built on an in-depth, integrated study of natural sciences and general education concepts. Knowledge and skills require a high level of critical thinking and are developed through didactic and field experiences related to the field of study. Students and graduates are guided by legal and ethical standards, and require communication and interpersonal skills which promote positive interaction with others in the educational and healthcare environment. They critically evaluate scientific theories, gain competence in both theoretical and experimental science and recognize the contribution of science to society. Quality healthcare cannot exist without the academic framework and intellectual discipline inherent in the study of natural sciences. Learning is a life-long, interactive process that builds on previous experience and ideally results in change in attitudes, beliefs, and/or behaviors. Learning occurs in a variety of environments, and involves the cognitive, affective and psychomotor domains. The learner is responsible for actively seeking knowledge both independently and under the supervision and guidance of qualified faculty. Faculty are responsible as role models, mentors and teachers for providing a caring environment in which students are free to explore and develop personally, professionally and intellectually. The College provides educational opportunities within the multiple contexts of legal and ethical boundaries, political and economic forces, sociocultural influences, and spiritual and historical factors. This environment provides quality education, which develops critical thinking and contributes to meeting the emerging health care needs of society

General Education Assessment

General Education Outcomes and Competencies

The general education outcomes are as follows:

Category of Study	General Education Outcome
Natural Sciences	1. Apply the physical and biological sciences to human health concepts.
Social Sciences	2. Evaluate the societal factors (political, social, psychological, economic, religion, age, etc.) that influence individuals in diverse communities.
Communications	3. Deliver cohesive communication in a variety of formats in a professional setting.
Mathematics	4. Employ quantitative and logical reasoning to solve problems
Humanities & Cultural Studies	5. Analyze issues using a multi-faceted approach to holistically address problems. 6. Integrate ethical reasoning into personal and professional identities to treat others with dignity
Business and Management	7. Articulate business management standards of practice to be a contributing member of a professional organization.
Cultural Studies	8. Differentiate one's own experiences from the experiences of others to foster global sensitivity.

General Education Assessment Measures and Methods

Below, each outcome is listed as well as the tools used to assess this outcome.

General Education Outcome #1: Apply the physical and biological sciences to human health concepts.

All students at the baccalaureate level must complete 16 hours of Natural Sciences courses.

Assessment Tool #1: Anatomy and Physiology Concept Inventories

Faculty in Anatomy and Physiology courses will administer concept inventories to students at designated times during the semester and student performance on these inventories will be calculated.

Benchmark: We piloted the use of these tools for assessment in 2023-2024 and refined them in 2024-2025. We have established the following benchmark for the 2025-2026 assessment plan.

For a cohort of 25 students: 60% of students will earn a score of 60% or higher on the concept inventory.

Assessment Tool #2: ACS Standardized Exams

Faculty will administer the corresponding ACS Standardized Exam for General Chemistry I and General Chemistry II as both a pre-test and a post-test and we will collect data on change in score over the course of the term.

Benchmark:

For a cohort of 20 students:

- 1) 50% of the students will increase their raw score by 4 on the ACS First and Second Semester Exam retest at the end of each semester.
- 2) 40% of the students will score at or above the national average score on the ACS First and Second Semester Exam retest at the end of each semester..

Assessment Tool #3: Microbiology Unknowns Paper

Students who take BIOS205L (Microbiology Laboratory) are required to complete a bacterial unknowns paper in which they must use biochemical testing to determine the identity of an unknown bacterial species and then develop a written lab report describing their analysis and result. This assignment is graded using an established rubric.

Benchmark: The rubric for this paper has been utilized for the past several years, and based on previous data, a benchmark has been established that 85% of students will score 80% or higher on the Unknowns paper rubric.

Assessment Tool #4: Pathophysiology Final Exams

The final exam in Pathophysiology contains a subset of 20 questions designed to test broad concepts related to this course. All students taking Pathophysiology take a final exam that includes these questions. The percentage of questions answered correctly is then assessed for each student.

Benchmark: 60% of students will correctly answer 65% or more of the Pathophysiology questions.

Assessment Tool #5: Sonography, Physics, and Instrumentation Exam

The SPI Registry exam is required for sonographers to become registered. The results of this exam will be used to assess the sonography students' abilities to apply scientific concepts related to physics.

Benchmark: The benchmark will be the national average overall pass rate as determined by the American Registry of Diagnostic Medical Sonographers (ARDMS) Global Exam Performance Summary Report as a three-year average.

Assessment Tool #6: Senior Exit Surveys

Graduating seniors complete an exit survey as graduation approaches. Surveys include a section asking students to assess their attainment of all General Education Outcomes.

Benchmark: On senior exit surveys, at least 70% of student respondents will indicate they have attained the General Education Competency.

General Education Outcome #2: Evaluate the societal factors (political, social, psychological, economic, religion, age, etc.) that influence individuals in diverse communities.

All students at the baccalaureate level must complete 9 hours of Social Sciences courses.

Assessment Tool #1: Course Specific Rubrics

For Social Sciences courses that use outcomes-based grading, the Humanities and Sciences committee will identify course outcomes that align with General Education Outcome #2.

Benchmark: At least 70% of students assessed will be at or above the “competent” level or higher on the outcomes based rubric row for the identified course outcome.

Assessment Tool #3: Senior Exit Surveys

Graduating seniors complete an exit survey as graduation approaches. Surveys include a section asking students to assess their attainment of all General Education Outcomes.

Benchmark: On senior exit surveys, at least 70% of student respondents will indicate they have attained the General Education Competency.

General Education Outcome #3: Deliver cohesive communication in a variety of formats in a professional setting.

All students at the baccalaureate level must complete 3 hours of Communications courses.

Assessment Tool #1: Course Specific Rubrics

For Communications courses that use outcomes-based grading, the Humanities and Sciences committee will identify course outcomes that align with General Education Outcome #3.

Benchmark: At least 70% of students assessed will be at or above the “competent” level on the outcomes based rubric row for the identified course outcome.

Assessment Tool #2: ENGL Major Papers

Two English Composition courses are offered at our institution. English Composition I (ENGL104) and English Composition II (ENGL154). Faculty teaching these courses will be asked to identify the final major assignment in their course and to provide data from their assignment rubric for that assignment.

Benchmark: 70% of the students will demonstrate competency in their final English written assignment by scoring 80% or higher on that assignment.

Assessment Tool #3: Microbiology Unknowns Paper

Students who take BIOS205L (Microbiology Laboratory) are required to complete a bacterial unknowns paper in which they must use biochemical testing to determine the identity of an unknown bacterial species and then develop a written lab report describing their analysis and result. This assignment is graded using an established rubric, with specific rows related to composition. These rows specifically will be analyzed.

Benchmark: 70% of students will score “competent” or higher on the rubric row associated with composition on their Microbiology Unknowns Paper.

Assessment Tool #4: Senior Exit Surveys

Graduating seniors complete an exit survey as graduation approaches. Surveys include a section asking students to assess their attainment of all General Education Outcomes.

Benchmark: On senior exit surveys, at least 70% of student respondents will indicate they have attained the General Education Competency.

General Education Outcome #4: Employ quantitative and logical reasoning to solve problems

All students at the baccalaureate level must complete 3 hours of Mathematics, including Statistics.

Assessment Tool #1: Math Pre-Test and Post-Test

Beginning Algebra, Intermediate Algebra, College Algebra, and Calculus students will be assessed with a pre- and a post-test at the beginning and the end of each semester. Both tests are of similar difficulty and comprehensively cover the material for each course. Both tests use a 100-point scale. These assessments measure students’ critical thinking skills and abilities to calculate accurately.

Benchmark: The post-test scores will be, on average, at least 20 points higher relative to the pre-test scores.

Assessment Tool #2: Health Sciences Reasoning Test (HSRT)

The HSRT is administered to Bachelor of Science in Nursing students in December and May at the end of the Nursing Care II course. Biomedical Sciences students will be assessed in December at the end of BIOS330

Scientific Research Methodology. Sonography students are assessed in June during Physics and Instrumentation. The HSRT will be utilized to evaluate the critical thinking competency.

Benchmark: At least 50% of the students will score at or above the 50th percentile on the Health Sciences Reasoning Test.

Assessment Tool #3: Senior Exit Surveys

Graduating seniors complete an exit survey as graduation approaches. Surveys include a section asking students to assess their attainment of all General Education Outcomes.

Benchmark: On senior exit surveys, at least 70% of student respondents will indicate they have attained the General Education Competency.

General Education Outcome #5: Analyze issues using a multi-faceted approach to holistically address problems.

All students at the baccalaureate level must complete 9 hours of Humanities.

This program outcome will not be directly assessed in the 2024-2025 academic year. We are working to develop assessments that will allow us to score this outcome in the following year.

Assessment Tool #1: Senior Exit Surveys

Graduating seniors complete an exit survey as graduation approaches. Surveys include a section asking students to assess their attainment of all General Education Outcomes.

Benchmark: On senior exit surveys, at least 70% of student respondents will indicate they have attained the General Education Competency.

Assessment Tool #2: Course Specific Rubrics

For specific Cultural Studies and Humanities courses that use outcomes-based grading, the Humanities and Sciences committee will identify course outcomes that align with General Education Outcome #5.

General Education Outcome #6: Integrate Ethical Reasoning into Personal and Professional Identities

All students at the baccalaureate level must complete 9 hours of Humanities, including 3 credits of PHIL210 (Ethics in Healthcare).

Assessment Tool #1: PHIL210 Rubrics

All students are required to complete PHIL210: Ethics of Healthcare as part of their General Education Curriculum. A rubric for PHIL210 aligned with General Education Outcome #6 is used to assess all students in PHIL210.

Benchmark: 70% of students will score “Competent” or higher on the PHIL210 rubric.

Assessment Tool #2: Senior Exit Surveys

Graduating seniors complete an exit survey as graduation approaches. Surveys include a section asking students to assess their attainment of all General Education Outcomes.

Benchmark: On senior exit surveys, at least 70% of student respondents will indicate they have attained the General Education Competency.

Assessment Tool #3: Course Specific Rubrics

For specific Cultural Studies courses that use outcomes-based grading, the Humanities and Sciences committee will identify course outcomes that align with General Education Outcome #6.

General Education Outcome #7: Articulate business management standards of practice to be a contributing member of a professional organization.

All students at the baccalaureate level must complete 3 hours of Economics or Management courses.

Assessment Tool #1: Course Specific Rubrics

For ECON/MGMT courses that use outcomes-based grading, the Humanities and Sciences committee will identify course outcomes that align with General Education Outcome #7.

Benchmark: At least 70% of students assessed will be at or above the “competent” level on the outcomes based rubric row for the identified course outcome.

Assessment Tool #2: Senior Exit Surveys

Graduating seniors complete an exit survey as graduation approaches. Surveys include a section asking students to assess their attainment of all General Education Outcomes.

Benchmark: On senior exit surveys, at least 70% of student respondents will indicate they have attained the General Education Competency.

General Education Outcome #8: Differentiate one's own experiences from the experiences of others to foster global sensitivity.

Assessment Tool #1: Course Specific Rubrics

For specific Cultural Studies courses that use outcomes-based grading, the Humanities and Sciences committee will identify course outcomes that align with General Education Outcome #8.

Assessment Tool #2: Senior Exit Surveys

Graduating seniors complete an exit survey as graduation approaches. Surveys include a section asking students to assess their attainment of all General Education Outcomes.

Benchmark: On senior exit surveys, at least 70% of student respondents will indicate they have attained the General Education Competency.

Graphical Summary of Assessment Alignment

The table below shows the alignment of assessment measures to particular general education outcomes. Shaded boxes marked with a “D” are direct measurements. Those marked with an “I” are indirect measurements.

General Education Outcome	Senior Exit Surveys	ACSE exams	A&P Inventories	Course-Specific Rubrics	Patho Core Questions	SP I Exam	ENGL Major Papers	H S R T	Math Pre-Test Post-Test	PHI L210 Rubric
1. Apply the physical and biological sciences to human health concepts.	I	D	D	D	D	D				
2. Evaluate the societal factors (political, social, psychological, economic, religion, age, etc.) that influence individuals in diverse communities.	I			D						
3. Deliver cohesive communication in a variety of formats in a professional setting.	I			D			D			
4. Employ quantitative and logical reasoning to solve problems	I							D	D	
5. Analyze issues using a multi-faceted approach to holistically address problems.	I	Not directly assessed this year								
6. Integrate ethical reasoning into personal and professional identities to treat others with dignity	I			D						D
7. Articulate business management standards of practice to	I			D						

be a contributing member of a professional organization.										
8. Differentiate one's own experiences from the experiences of others to foster global sensitivity.	I			D						

Biomedical Sciences Assessment

Biomedical Sciences Outcomes and Competencies

The Biomedical Sciences Program Outcomes are as follows:

1. Establish broad foundational knowledge in order to engage in scientific pursuits.
2. Apply scientific concepts by integrating them into the context of human health.
3. Employ technology in practical settings to facilitate scientific inquiry
4. Develop multidisciplinary laboratory skills to create professional readiness
5. Incorporate ethical reasoning into ones professional identity
6. Propose novel ideas through the application of the scientific method

Biomedical Sciences Assessment Measures and Methods

Below, each program outcome is listed as well as the tools used to assess this outcome.

Biomedical Sciences Program Outcome #1: Establish broad foundational knowledge in order to engage in scientific pursuits.

Assessment Tool #1: Physiology Concept Inventories

Faculty in BIOS335: Human Physiology will administer concept inventories to students at designated times during the semester and student performance on these inventories will be calculated.

Benchmark: We piloted the use of these tools for assessment in 2023-2024 and will refine these tools in 2024-2025. We have established the following benchmark for the 2025-2026 assessment plan.

For a cohort of 25 students: 60% of students will earn a score of 60% or higher on the concept inventory.

Assessment Tool #2: ACS Standardized Exams

Faculty will administer the corresponding ACS Standardized Exam for General Chemistry I and General Chemistry II as both a pre-test and a post-test and we will collect data on change in score over the course of the term.

Benchmark: For a cohort of 20 students:

- 1) 50% of the students will increase their raw score by 4 on the ACS First and Second Semester Exam retest at the end of each semester.

- 2) 40% of the students will score at or above the national average score on the ACS First and Second Semester Exam retest at the end of each semester.

Assessment Tool #3: Scientific Research Methodology Literature Review

Students in BIOS330 (Scientific Research Methodology) select an area of research and then write an extensive Literature Review of that topic. Literature Reviews are scored with a rubric that includes rows specifically related to demonstrating broad knowledge about their topic of choice.

Benchmark: 80% of students will score “Competent” or higher on their Literature Review. This benchmark will be reported and assessed in cohorts of 25 students.

Assessment Tool #4: Biochemistry and Molecular Biology Final Exams

Comprehensive final exams that address the course objectives for BIOS320 (Biochemistry) and BIOS410 (Molecular Biology) are administered at the end of their respective courses.

Benchmark: 70% of students will score 70% or higher on this exam. This benchmark will be reported and assessed in cohorts of 25 students.

Assessment Tool #5: Senior Exit Surveys

Graduates of the Biomedical Sciences program complete an exit survey upon graduation. Surveys include a section asking students to assess their attainment of all Program Outcomes.

Benchmark: On senior exit surveys, at least 80% of student respondents will indicate agree or strongly agree for all program outcomes as assessed in cohorts of 25.

Biomedical Sciences Program Outcome #2: Apply scientific concepts by integrating them into the context of human health.

Assessment Tool #1: Physiology Concept Inventories

Faculty in BIOS335: Human Physiology will administer concept inventories to students at designated times during the semester and student performance on these inventories will be calculated.

Benchmark: We piloted the use of these tools for assessment in 2023-2024 and will refine these tools in 2024-2025. We have established the following benchmark for the 2025-2026 assessment plan.

For a cohort of 25 students: 60% of students will earn a score of 60% or higher on the concept inventory.

Assessment Tool #2: Pathophysiology Final Exams

The final exam in Pathophysiology contains a subset of 20 questions designed to test broad concepts related to this course. All students taking Pathophysiology take a final exam that includes these questions. The percentage of questions answered correctly is then assessed for each student.

Benchmark: 60% of students will correctly answer 65% or more of the Pathophysiology questions.

Assessment Tool #3: Genetics Paper

Students are assigned a final paper in which they explain the genetic basis of a chosen disease. A rubric is utilized to assess the students' writing, skills, and understanding of the genetic concepts learned throughout the semester and reflected in the paper.

Benchmark: 80% of students will achieve 80% or higher on this assignment as assessed in cohorts of 25.

Assessment Tool #4: BIOS480 Capstone Paper

As part of their final senior capstone project, students write a formal paper that describes their Biomedical Sciences research project. An established rubric related to the application of scientific concepts is used to score this paper.

Benchmark: 80% of students will achieve 80% or higher on this assignment as assessed in cohorts of 25.

Assessment Tool #5: Senior Exit Surveys

Graduates of the Biomedical Sciences program complete an exit survey upon graduation. Surveys include a section asking students to assess their attainment of all Program Outcomes.

Benchmark: On senior exit surveys, at least 80% of student respondents will indicate agree or strongly agree for all program outcomes as assessed in cohorts of 25.

Biomedical Sciences Program Outcome #3: Employ technology in practical settings to facilitate scientific inquiry

Assessment Tool #1: BIOS330 Data Representations Assignment

Students in BIOS330 (Scientific Research Methodology) are required to complete an assignment that asks them to use technology to analyze data, as well as to generate informative data representations that align with their data analysis.

Benchmark: 80% of students will score 80% or higher on this assessment as assessed in cohorts of 25.

Assessment Tool #2: BIOS480 Capstone Rubric

BIOS480 Senior Capstone projects are scored using a rubric that assesses the ability of students to carry out their research projects.

Benchmark: 80% of students will score “Accomplished” or higher on this rubric as assessed in cohorts of 25.

Assessment Tool #3: Senior Exit Surveys

Graduates of the Biomedical Sciences program complete an exit survey upon graduation. Surveys include a section asking students to assess their attainment of all Program Outcomes.

Benchmark: On senior exit surveys, at least 80% of student respondents will indicate agree or strongly agree for all program outcomes as assessed in cohorts of 25.

Biomedical Sciences Program Outcome #4: Develop multidisciplinary laboratory skills to create professional readiness

This program outcome will not be directly assessed in the 2025-2026 academic year. We are working to develop assessments that will allow us to score this outcome in the following year.

Assessment Tool #1: Laboratory Skills Checks

In various laboratory courses, students will be assessed on their ability to correctly perform specific skills. The percentage of students who successfully complete the skill will be reported.

Benchmark: 80% of students will successfully complete each skill on their first or second attempt as assessed in cohorts of 25.

Assessment Tool #2: Senior Exit Surveys

Graduates of the Biomedical Sciences program complete an exit survey upon graduation. Surveys include a section asking students to assess their attainment of all Program Outcomes.

Benchmark: On senior exit surveys, at least 80% of student respondents will indicate agree or strongly agree for all program outcomes as assessed in cohorts of 25.

Biomedical Sciences Program Outcome #5: Incorporate ethical reasoning into ones professional identity

Assessment Tool #1: Current Issue in Genetics Paper

Students complete an assignment investigating controversial societal and/or ethical issues related to the field of Genetics. Students research their chosen topic and determine who the societal/ethical issues are impacted by science and how they, in turn, impact society.

Benchmark: 80% of students will achieve 80% or higher on this assignment as assessed in cohorts of 25..

Assessment Tool #2: BIOS330 Ethical Issues in Research Module

Students must complete an Ethical Issues in Research Module in BIOS330 (Scientific Research Methodology). This module requires both completion of a quiz over the ethical issues associated with an Institutional Review Board (IRB) as well as an IACUC (Institutional Animal Care and Use Committee) and completion of an Ethical Research Plan specific to their research assignment.

Benchmark: 80% of students will score at least 90% on their IRB and IACUC Guided Quiz and satisfactorily complete their Ethical Research Plan on the first attempt as assessed in cohorts of 25.

Assessment Tool #3: BIOS480 Capstone Rubric

An established rubric aligned with this program outcome is used to assess BIOS480 capstone projects.

Benchmark: 80% of students will score “Accomplished” or higher on this rubric as assessed in cohorts of 25.

Assessment Tool #4: Senior Exit Surveys

Graduates of the Biomedical Sciences program complete an exit survey upon graduation. Surveys include a section asking students to assess their attainment of all Program Outcomes.

Benchmark: On senior exit surveys, at least 80% of student respondents will indicate agree or strongly agree for all program outcomes as assessed in cohorts of 25.

Biomedical Sciences Program Outcome #6: Propose novel ideas through the application of the scientific method

Assessment Tool #1: Discussion Section Rubrics

Biomedical Sciences students write formal lab reports and/or papers in:

- BIOS205L (Microbiology Lab)

- BIOS410L (Molecular Biology Lab)
- BIOS480 (Capstone)

The rubrics used to assess these assignments include rows specifically related to the Discussion section of their papers, which aligns with PO#6. These rubric rows will be assessed for each course, in cohorts of 25.

Benchmarks:

- 75% of students in Microbiology (BIOS205L) will achieve “Competent” level or above on these rubric rows
- 80% of students in Molecular Biology (BIOS410L) will achieve “Competent” level or above on these rubric rows.
- 80% of students in their Senior Capstone (BIOS480) will achieve “Accomplished” on these rubric rows

Assessment Tool #2: Senior Exit Surveys

Graduates of the Biomedical Sciences program complete an exit survey upon graduation. Surveys include a section asking students to assess their attainment of all Program Outcomes.

Benchmark: On senior exit surveys, at least 80% of student respondents will indicate agree or strongly agree for all program outcomes as assessed in cohorts of 25.

Overall Program Effectiveness:

Assessment Tool #1: Application to Graduation/Clinical Programs

The progress of students applying to graduate and/or clinical programs in a variety of biomedical-related fields will be tracked.

Benchmark: Of those who apply, 80% will be accepted to graduate school. Given small cohort sizes, and the fact that some students may take a gap year, this is calculated on a cumulative basis over the course of five year periods.

Assessment Tool #2: Employment Rate

For those students opting not to seek admission to a graduate and/or clinical program, the positive placement into a biomedical related job will be tracked.

Benchmark: Of those students not attending graduate school, 50% will be employed in a biomedical science related field within 12 months of graduation.

Assessment Tool #3: Graduation and Retention Rate

Retention Rate is calculated by determining, based on the Day 8 census each fall, the percentage of students from the previous academic year who are still pursuing a Biomedical Sciences degree. This is calculated as a five-year average.

Graduation Rate is calculated by determining the percentage of students who matriculate to Bryan and graduate within six years. This is calculated as a running total over a five-year period.

Benchmark: Our graduation rate will be 70%. Our Fall to Fall retention rate will be 75%.

Graphical Summary of Assessment Alignment

The table below shows the alignment of assessment measures to particular program outcomes. Shaded boxes marked with a “D” are direct measurements. Those marked with an “I” are indirect measurements.

	PO#1: Establish broad foundational knowledge in order to engage in scientific pursuits.	PO #2: Apply scientific concepts by integrating them into the context of human health.	PO #3: Employ technology in practical settings to facilitate scientific inquiry	PO #4: Develop multidisciplinary laboratory skills to create professional readiness	PO#5: Incorporate ethical reasoning into ones professional identity	PO#6: Propose novel ideas through the application of the scientific method	Over all program effectiveness
Physiology Concept Inventories	D	D		Not directly assessed this year			
ACS Standardized Exams	D						
BIOS330 Literature Review	D						
Biochemistry Final	D						
Molecular Biology Final	D						
Pathophysiology Core Questions		D					
Genetics Paper		D					
BIOS330 Data Representations Assignment			D				
Current Issues in Genetics Paper					D		
BIOS330 Ethical Issues Module					D		
BIOS205L Rubric						D	
BIOS410L Rubric						D	

BIOS480 Rubrics		D	D		D	D	
Senior Exit Surveys	I	I	I	I	I	I	
Graduate Program Applications							D
Employment							D
Graduation Rate							D
Retention Rate							D

Healthcare Studies Assessment

Healthcare Studies Outcomes and Competencies

The Healthcare Sciences Program Outcomes are as follows:

1. Explain factors that influence health, demonstrating literacy in a chosen health-related discipline
2. Evaluate information relevant to a particular health setting to gain insight
3. Integrate distinct concepts from multiple health-related disciplines, revealing unique connections
4. Partner with others in the healthcare environment, resulting in mutually beneficial collaboration

Healthcare Studies Assessment Measures and Methods

Below, each program outcome is listed as well as the tools used to assess this outcome.

Program Outcome #1: Explain factors that influence health, demonstrating literacy in a chosen health-related discipline

Assessment Tool #1: HCST417 Final Project Rubric

Students in HCST417 (Internship) complete a Final Project. This project is evaluated using an established rubric, including a rubric row aligned with Program Outcome #1. Data will be collected on the score individual students receive for this rubric row.

Benchmark: 80% of students will score 80% or higher on this rubric row as assessed in cohorts of 10 students.

Assessment Tool #2: HCST420 Capstone Final Project

Students in HCST420 complete a senior level capstone presentation and paper. Established rubrics for both of these projects are used to score the assignments. These rubrics both include rubric rows related to the review of current literature and coverage of the current literature (Topic Coverage and Literature Review). Data will be collected on the total score individual students receive for these individual rubric rows.

Benchmark: 80% of students will score 80% or higher on this rubric row as assessed in cohorts of 10 students.

Assessment Tool #3: Senior Exit Surveys

Graduates of the Healthcare Studies program complete an exit survey upon graduation. Surveys include a section asking students to assess their attainment of all Program Outcomes.

Benchmark: On senior exit surveys, at least 70% of student respondents will indicate agree or strongly agree for all program outcomes as assessed in cohorts of 10.

Program Outcome #2: Evaluate information relevant to a particular health setting to gain insight

Assessment Tool #1: HCST417 Final Project Rubric

Students in HCST417 (Internship) complete a Final Project. This project is evaluated using an established rubric, including a rubric row aligned with Program Outcome #2. Data will be collected based on the score individual students receive for this rubric row.

Benchmark: 80% of students will score 80% or higher on this rubric row as assessed in cohorts of 10 students.

Assessment Tool #2: HCST420 Capstone Final Project

Students in HCST420 complete a senior level capstone presentation and paper. Established rubrics for both of these projects are used to score the assignments. These rubrics both include rubric rows related to the evaluation of information (Capstone Project Description). Data will be collected on the total score individual students receive for these individual rubric rows.

Benchmark: 80% of students will score 80% or higher on this rubric row as assessed in cohorts of 10 students.

Assessment Tool #3: Senior Exit Surveys

Graduates of the Healthcare Studies program complete an exit survey upon graduation. Surveys include a section asking students to assess their attainment of all Program Outcomes.

Benchmark: On senior exit surveys, at least 70% of student respondents will indicate agree or strongly agree for all program outcomes as assessed in cohorts of 10.

Program Outcome #3: Integrate distinct concepts from multiple health-related disciplines, revealing unique connections

Assessment Tool #1: HCST415 Professional Standards Discussion

Students in HCST415 (Preparation for Professional Practice) complete a Professional Standards Discussion in which they integrate several concepts in order to address a hypothetical ethical issue related to their field of interest. Students are evaluated using an established rubric for their ability to address this issue in a multi-faceted way.

Benchmark: 80% of students will score 80% or higher on this assignment as assessed in cohorts of 10.

Assessment Tool #2: HCST420 Capstone Final Project

Students in HCST420 complete a senior level capstone presentation and paper. Established rubrics for both of these projects are used to score the assignments. These rubrics both include rubric rows related to Program Outcome #3 (Conclusion and Viewpoint). Data will be collected on the total score individual students receive for these individual rubric rows.

Benchmark: 80% of students will score 80% or higher on this rubric row as assessed in cohorts of 10 students.

Assessment Tool #3: Senior Exit Surveys

Graduates of the Healthcare Studies program complete an exit survey upon graduation. Surveys include a section asking students to assess their attainment of all Program Outcomes.

Benchmark: On senior exit surveys, at least 70% of student respondents will indicate agree or strongly agree for all program outcomes as assessed in cohorts of 10.

Program Outcome #4: Partner with others in the healthcare environment, resulting in mutually beneficial collaboration

Assessment Tool #1: HCST417 Supervisor Evaluation

Students completing their internship (HCST417) are evaluated by their internship site-supervisor using an established evaluation template. Data will be collected on how students are scored in this evaluation rubric.

Benchmark: The supervisor evaluation has 7 questions, scored on a Likert Scale (1 = Never, 2 = Some of the time, 3 = Most of the time, 4 = Always). The average score across all 7 items will be calculated for each student. 80% of students will achieve an average score of 3.5 or higher on their Site Supervisor Evaluation

Assessment Tool #2: HCST420 Capstone Presentation and Paper Overall Scores

The Capstone Presentation and Paper overall and focused on a particular question or problem a student chooses to investigate and to develop practical guidance after their study of their chosen topic.

Benchmark: 80% of students will score 80% or higher on their Capstone Presentation and Paper as assessed in cohorts of 10 students.

Assessment Tool #3: Senior Exit Surveys

Graduates of the Healthcare Studies program complete an exit survey upon graduation. Surveys include a section asking students to assess their attainment of all Program Outcomes.

Benchmark: On senior exit surveys, at least 70% of student respondents will indicate agree or strongly agree for all program outcomes as assessed in cohorts of 10.

Overall Program Effectiveness: Positive Placement

Overall program effectiveness is assessed through the positive placement percentage. The percentage of graduates who go on to secure either employment in a healthcare related field or admission to a graduate program in their related field is calculated.

Benchmark: The program will have a positive placement rate of 80% or higher as assessed in cohorts of 10.

Graphical Summary of Assessment Alignment

The table below shows the alignment of assessment measures to program outcomes. Shaded boxes marked with a “D” are direct measurements. Those marked with an “I” are indirect measurements.

	Explain factors that influence health, demonstrating literacy in a chosen health-related discipline	Evaluate information relevant to a particular health setting to gain insight	Integrate distinct concepts from multiple health-related disciplines, revealing unique connections	Partner with others in the healthcare environment, resulting in mutually beneficial collaboration	Overall program effectiveness
HCST415 Professional Standards Discussion			D		
HCST417 Final Project Rubrics	D	D			
HCST417 Site Supervisor Evaluation				D	
HCST420 Capstone Presentation and Paper	D	D	D	D	
Senior Exit Surveys	I	I	I	I	
Positive Placement					D

Analysis of Assessment Results:

Designated faculty members in the Humanities and Sciences Department will be responsible for gathering and analyzing the data collected, which will then be presented to the Humanities and Sciences Assessment Subcommittee in the following fall. Results of the measurements will be discussed at the meeting, and a collaborative report will be written.

Determining Reasons for Gaps in Student Learning:

When gaps are identified, faculty will collaborate with appropriate program personnel to identify probable reasons for gaps. Additional data, if needed, will be collected to help narrow down or better identify the possible reasons for gaps in student learning.

Adjustments to Narrow Gaps:

Recommendations for programmatic and/or operational adjustments to address gaps in learning will be made based on the findings of the analysis and will be based on discussions and analysis coming from the assessment measures. Reports on recommended changes will go to the Undergraduate Studies Committee.

Planning and Budgeting Processes:

Recommended programmatic and/or operational adjustments will be integrated into annual planning and budgetary processes. As needed, the subcommittee will present program requests to the appropriate Faculty Senate Committees and operational requests to the Leadership Council.

Correlating Adjustments to Changes in Outcomes:

This will be the first year we are assessing our new outcomes, so we will examine our attainment of benchmarks after this year and make adjustments that can be correlated to changes in outcomes the following year.

This is the second year we are assessing our new outcomes and adjustments have been made to outcomes. These adjustments are listed below:

General Education Outcome #1:

Assessment Tool #1 - Anatomy and Physiology Concept Inventories: Data was used to establish a benchmark. The 2025-2026 school year will be the first year this benchmark will be used.

Assessment Tool #4 - Pathophysiology Final Exams: We are adjusting the new benchmark to 60% of students will score a 65% or better on the pathophysiology questions.

General Education Outcomes #2 and #8:

Assessment Tool #2 - Intercultural Developmental Inventory: Due to new interpretation of Title VI of the Civil Rights Act of 1964, the college no longer requires the Intercultural Developmental Inventory for students. It is strictly voluntary, and because of this, final results cannot be compared to initial results.

Biomedical Sciences Program Outcome #1:

Assessment Tool #1 - Physiology Concept Inventories: Data was used to establish a benchmark. The 2025-2026 school year will be the first year this benchmark will be used.

Assessment Tool #2 - Pathophysiology Final Exams: We are adjusting the new benchmark to 60% of students will score a 65% or better on the pathophysiology questions.

Refining the Assessment Plan and Processes

We piloted several new tentative benchmarks last year, and continue to collect data to establish or refine benchmarks in the coming years. There are two outcomes for which assessment tools are being used for the first time this year (Anatomy and Physiology Concept Inventory and Physiology Concept Inventory). This is the second year that the Healthcare Studies Assessment Plan has been used, so we will continue to monitor and address the plan and benchmarks as we continue to collect initial data.