

Annual Assessment Report 2024



Assessment is an ongoing method focused on improving and enhancing student learning in courses and programs. In assessment, we systematically define and modify outcomes, identify measuring tools, teach/assess, analyze/report, and act/plan, taking action to measure how well student learning aligns with our intended outcomes.

LAKE LAND
COLLEGE

Welcome

What's new with Assessment

Employee Changes

Fiscal year 2024 brought major changes to the assessment office. We wished Lisa Madlem a happy retirement after working full-time as the Director of Assessment for 14 years. Lisa did a wonderful job in promoting the completion of assessment and was a great resource for faculty in working with our assessment software, Weave.

In February of 2024, the College hired Nermine Tawdros as the Data Analyst and Assessment Coordinator. With Nermine's hiring, we changed the focus of assessment, moving from the compliance phase of assessment toward using data to make improvements, a change that is reflected in the position's new title. The Data Analyst and Assessment Coordinator reports directly to the Director of Data Analytics.

Software Changes

Lake Land for the last few years has been using Weave Education as the solution to capture our assessment information. Weave is a software solution that is geared more toward accreditation and was a good solution over the word-processing documents that we used in the past. As times have changed and more of our faculty are using Canvas LMS for their courses, it became evident that we needed to seek a solution that would work more closely with Canvas. Different software solutions were evaluated and demonstrations were conducted. Our faculty were consulted and agreed that HelioCampus was the best solution for the College. HelioCampus will allow us to connect learning outcomes directly to assignments, test questions, and artifacts as well as pull the results from these assignments into the assessment process. This will ultimately allow the faculty to shift their collection of assessment artifacts over to analyzing the data that is being collected.

We plan on full implementation beginning Fall 2025. Currently, a pilot group of faculty is working on revising learning, course, and program outcomes. We are collecting information on the software implementation and will begin assessing with HelioCampus in the Spring of 2025.

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ASSESSMENT DUE DATES

February (Second Wednesday)

Fall Course Assessment
Results & Analysis

May 15

Program Assessment
Results & Analysis

ICCB Program Review

September 15

Institutional Assessment
Results & Analysis

General Education Assessment / Institutional Learning Outcomes (ILOs)

General Education Assessment in past years has been comprised of a set of targeted questions compiled in test form that was administered to strategically selected courses. These courses were selected from courses that should be comprised of mostly sophomore-level students. These tests were collected and summarized, and the results were shared with the campus community. What we were seeing was that we were capturing more career and technical students than transfer students, and we were also capturing students who had not completed all topic-related courses to be able to answer the questions. The committee reviewed different options and decided that we needed to rework our general education assessment.

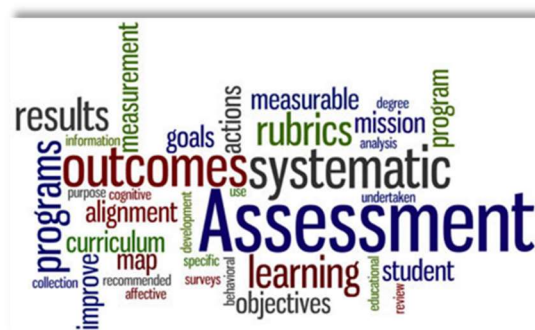
What is the intent of General Education Assessment?

In reviewing the purpose behind the general education assessment, we also determined that the competencies that we expected our transfer students to possess were also qualities that employers were seeking in our career and technical graduates. We decided that we would convert the general education assessment to a campus-wide assessment. We also wanted the students to be aware of the competencies that they were learning, and the HelioCampus software provides a student portfolio product that will enable the students to take their learning competencies with them as they seek employment.

Laker Learning Competencies

During FY2022, the committee worked to establish the Laker Learning Competencies. In FY2023, time was devoted to creating rubrics, using the Association of American Colleges and Universities VALUE Rubrics as guidelines for each of the competencies. The following are the learning competencies that all students should have as they leave Lake Land College.

- Communication
- Creative Thinking and Problem Solving
- Critical Thinking
- Global and Cultural Literacy
- Information and Technology Literacy
- Professional Skills and Ethics
- Quantitative Literacy
- Scientific Literacy



In FY2025, HelioCampus will help us curriculum map these competencies to the courses and programs that directly teach them, ensuring that all programs at the College contain these competencies. The Laker Learning Competencies will be identified on each course information form that is published on our website and connected to the course description in the student registration software. FY2025 will also bring norming sessions to ensure that the rubric is all-inclusive and easy for the faculty to relate and evaluate in their courses. (See the Laker Learning Competencies at the end of this document.)

Assessment

Knowing that we need to transition our assessment from compliance to actionable assessment, we identified that we first need to ensure that our course information forms are up-to-date and correct. A college-wide initiative was launched, and a new and improved form was created that eliminated a lot of guesswork in creating a new course. All the existing courses that are active with the Illinois Community College Board (ICCB) were converted from a Word document to an Excel document that contains calculations, ensuring the learning segment totals match the approved lecture, lab, and clinical hours of the course. Any errors that were identified are being addressed and in some instances getting reapproved through Curriculum Committee and ICCB. Our Curriculum Coordinator is currently completing an audit to ensure all courses are correct.



Updating Course Learning Outcomes (CLOs) and Program Learning Outcomes (PLOs)

While implementing HelioCampus, we are also reevaluating our course and program learning outcomes. Lead instructors are assigned to each course, who are reviewing the outcomes on the course information form and updating them to be consistent with the learning and course outcomes to be assessed. At the same time, they are identifying the Laker Learning Competencies being taught in each course. As these are submitted, the Data Analyst and Assessment Coordinator will curriculum map them to ensure that all programs contain each of the Laker Learning Competencies. Once this process is completed, they will be entered into HelioCampus and connected through Canvas so that data can be seamlessly collected and analyzed. We expect this to be in place beginning Fall 2025.

Completion Rate

Once again, the faculty should be congratulated on 100% completion rate for course and program assessment.



Institutional Assessment

With the implementation of the 2023-2027 Strategic Plan, the administration requested that each major working team create a master plan. Each of the cabinet members worked with their direct reports to complete the Master Plan Template. This template contains:

- the purpose of each team
- the team's relationship to LLC's mission
- goals with measurable objectives and key performance indicators
- short-term and long-term objectives with goals, timelines, milestones, and budget considerations

In FY 2025, sections were added to the template to capture accomplishments and completed objectives. Also, a table to collect assessments of the defined goals and objectives was added.

Assessment of the goals and objectives should include:

- how the objective was identified
- what was used to measure the objective
- shortcomings, successes, etc.
- what actions are being taken

Master Plans are monitored routinely to ensure goals are being accomplished and to ensure plans are up-to-date with new initiatives as they come along.

The following areas have an up-to-date master plan:

Academic Services

- Agriculture Division
- Allied Health Division
- Business Division
- Humanities Division
- Math & Science Division
- Social Science Division
- Technology Division
- Library Services
- Academic Services Units

Business Services

- Accounting
- Bookstore
- Human Resources
- Information Systems and Services
- Physical Plant
- Print Shop/Mailroom

President's Office

- College Advancement
- Institutional Effectiveness
- Police
- Workforce Solutions and Community Education

Student Services

- Admissions and Records
- Athletics
- Career Services
- Counseling
- DEIB Student Success
- Financial Aid
- Health Services
- International Studies
- Marketing & Public Relations
- Recruitment and Enrollment
- Student Life
- Student Success Center
- TRIO

How Is Assessment Used at Lake Land College

Using Assessment to Improve the Emergency Medical Services and Paramedical Services Programs

In preparation for the accreditation renewal, the EMS program reviewed its course assessments, program assessments, and the ICCB program review. Board pass rates are a large part of the program assessment.

In the summer of 2024, the EMT-Basic course received notice that our board pass rates had fallen to around 50% between July 2023 and June 2024. The program needed to complete a full evaluation and develop an action plan to increase pass rates. They reviewed all of the EMT-Basic final exams between Spring 2021 and Spring 2024 and discovered that in 15 sections of EMS-050, 14 sections were given final exams with an average Bloom's Taxonomy level of 2, which is at the cognitive level. The students were passing the final exam and the course but were struggling to pass their NREMT board exam. It was also determined that students who were failing the final exam but still passing the course were failing their NREMT exam.

The review outlined positives, including:

- improved technology – adding tools and equipment
- a test platform
- textbook changes
- subject matter experts in special categories
- grant opportunities to remove financial barriers for the students



EMS Action Plan

Their action plan included:

- a review of all quizzes and exams for Bloom's Taxonomy levels and course material: each semester, final exams needed to average a Bloom's level of 4 or 5 with questions given within the exam between Bloom's levels of 3-6.
- a revision of what passing meant: a final accumulative class grade of 80% to pass the course was changed to a passing grade of 70% on the written final exam
- an evaluation of lecture/lab requirements that are adjusted as needed for each cohort
- a review of all classes at Lake Land College and SBLHS EMS System to ensure they meet the course requirements set by the Illinois Department of Public Health (IDPH) and the EMS system

The final exam for the summer semester had an average Bloom's level of 4. The course instructor and program director used one of the comprehensive final exams premade through our testing software. The exam questions were not available in the normal test bank available for other quizzes or tests within the program. Of the 7 students given that exam:

- the scores ranged between 79% and 89% with an average score of 85%
- 5 of the students passed their NREMT exam on the first attempt upon course completion
- 1 student was unsuccessful on the first attempt but has 2 additional attempts within 1 year of course completion
- 1 additional student was unsuccessful in all 3 allotted attempts

The NREMT exam rate for the SU2024 course is currently at 71.4%. The instructors also participated in remedial training with educational staff from the testing software on 08/19/2024 to review scaffolding, testing, validity, reliability, Bloom's levels, and test creation within the system.

Assessment of EMS-050 Emergency Medical Technician – Basic

On the next few pages, the assessments conducted are summarized.

Course Objectives	Fall 2023 Assessment	Spring 2024 Assessment	Summer 2024 Assessment
Identify elements of an EMS system and describe the EMT's role within the system	During the fall semester of 2023, 14 students were asked a total 91 questions on EMS systems, and 69% of those questions were answered correctly during the semester. The students were asked 140 questions on the roles and responsibilities of the EMT and 76% of those questions were answered correctly. One student was not able to take the final exam for being unsuccessful at maintaining a pre final grade above 80%. On the final exam 13 students were given 13 questions on EMS systems and their role within the system and 6 questions at lower Bloom's levels were answered correctly 74%, and questions at higher Bloom's level were only answered correctly 65.5% of the time. These questions were reviewed for validity and reliability and were found to be valid and reliable and that the higher-level content tested in the course needs to be addressed.	During the Spring 24 semester there were 20 enrolled in this course in 2 sections; and 19 students that successfully completed this course. Throughout the course they were asked a total of 305 questions pertaining to EMS systems and the EMT role with the system. The student successfully answered those questions correctly 73% of the time. At the completion of this course the day section was given a blueprinted final from the testing software we utilize and the night course was given a final exam written by the instructor to compare the Bloom's level and board pass rates. The night section was given 1 question on the EMS system and the role of the EMT in the system and only of the 7 students that took that exam got it correct. The 10 students in the day section got 6 questions in this area with an average Bloom's level of 5.3 and got 96.6% or them correct.	During the Summer Semester of 2024 students were asked 42 questions regarding EMS systems and the EMT role in the EMS system. They were able to answer 88% of these correctly. On the comprehensive final exam, the students were given 5 questions that evaluated their knowledge on the EMS system and the RMT role in the EMS system and 95.16% of the class answered these correctly. This needs to continue to be monitored.
Demonstrate the assessment of medical and trauma patients of all ages	At the conclusion of the semester all 14 students were given a comprehensive skills exam. The average score on the hands-on skills exam was 37.14 with the high being 42/42 and the low being 34/42. One student took two attempts to pass this	Both sections were given skill test out examinations to determine their ability to perform an assessment of a patient of any age and any condition. There were 7 students in the night section that were given this hands-on exam and 6 students passed	To ensure competency in this area the students were given a comprehensive hands-on skills evaluation at the end of the course. The average score on this exam was 39.4/42 with a high score of 42 and a low score of 35. The most common error on

	exam, one took all three attempts need to pass. The most commonly missed area was verbalization of the field impression. The students were able to recognize and treat appropriately, they just did not verbalize.	on the first attempt and 1 student had to have a second attempt to pass. The average score was 40/42. The day section of this course during the spring semester of 2024 had an average score of 40.7/42. 9 students in the day section were successful on the first attempt and 1 student needed a second attempt to successfully pass this exam.	this exam during this semester was not obtaining a complete patient history. This did not affect care of the patient and was not a critical failure during this evaluation.
Demonstrate basic airway management techniques on patients of all ages.	At the midpoint of this course 14 students were given a comprehensive skills airway exam. All 14 students at the midpoint, prior to clinical release were able to successfully place basic airway adjuncts and manage difficult patient airways appropriately as well as name and describe indications of different airway equipment during a verbal exam.	Prior to clinical release there were 8 students evaluated on the airway management in written, oral and skills evaluation. All 8 were able to pass the skill portion of this evaluation, 7 passed the written and oral on the 1 st attempt and the 8 th student took 2 attempts on the oral portion and did not successfully pass the written portion of this evaluation and was not able to successfully pass this course.	The students in this cohort were given a hands-on practical exam to demonstrate competency on airway management prior to clinical release. They were also given an oral examination to test knowledge on different airway equipment. All 7 students that were given this hands-on exam and the oral exam were successful in this exam on the first attempt.
Explain the EMT's role in decreasing mortality and morbidity in the trauma patient.	During the semester 14 students were given 3,145 questions on trauma patients and the management of the trauma patient and answered those questions correctly 73% of the time. On the comprehensive final exam 13 students were given 37 questions related to the morbidity and mortality of the trauma patient. The average Bloom's level on this section was a level of 2.83. this section on the exam was not tested to the critical thinking level. Students were able to	During the entirety of the course the night section of this course was asked a total of 2,024 questions dealing with trauma and got 71% of them correct. The day section was asked a total of 2, 585 questions related to trauma and successfully answered 71% of them. The night section was given 45 questions on the comprehensive final exam that evaluated knowledge on mortality and morbidity of the trauma patient, the average Bloom's level was 3.3 and the night	In the summer semester of 2024, there were 9 students enrolled in this course and 7 students in this course after 10 th day. The students that withdrew reported not expecting there to be a demanding schedule and they would not be able to fulfill the requirements of the course. The remaining 7 students were asked a total of 1, 660 questions on the trauma patient and the management of trauma patient injuries. The students answered 76% of those questions correctly. This is an

	<p>answer questions on the lower Bloom's level correctly more often than those at the higher Bloom's level . This material needs to be tested to higher Bloom's level . Only 12 out of 37 questions were at a higher Bloom's level and those questions were only answered correctly an average of 68%. As a course is there a way to pull this information throughout the semester so that stays fresh in the student's minds.</p>	<p>section of this course had 20 questions at higher Bloom's level and answered them correctly 65% of the time. The day time section of this course was given 30 questions to evaluate the morbidity and mortality of the trauma patient on the blueprinted final developed by the testing software all at higher-level bloom that average bloom in this section was 3.36 and the students in the day section answered this section of question correctly 61.5% of the time.</p>	<p>increase from the previous semesters. On the final exam there 30 questions that evaluated the student's knowledge of the EMT's role on the mortality and morbidity of the trauma patient. The average Bloom's level in the area was 3.36. 71.83% were answered correctly. This is an increase from previous semesters. This topic needs to be further integrated throughout the course, and scaffolding testing was used this semester to pull topics forward to aid in knowledge retention.</p>
Describe the management sequence for the patient with various medical disorders	<p>During the Fall Semester of 2023 14 students were asked a total of 3,348 questions regarding various medical conditions and answered them correctly 75% of the time. During the final exam 13 students were given 39 questions regarding the care of medical patients. Only 9 questions were asked at a Bloom's level of 4 or above. The average Bloom's level was 2.46. Those that were asked at higher level were answered correctly 76% of the time. This topic was the topic covered toward the end of the semester; this information is fresher in the student's mind.</p>	<p>During the Spring semester of this course the students in the night section were asked a total of 2, 403 and answered 77% of them correctly and the day section students were asked 2,049 questions on various medical conditions and treatments and answered 73% of them correctly. During the comprehensive final exam at the conclusion of the course the 7 students in the night section were asked 52 questions regarding the treatment of managing different patients with medical conditions with an average Bloom's level of 2.82 and answered the 18 questions with Bloom's level between 4-6 correct 80% of the time. The 10 students in the day section were given 46 medical questions all of which</p>	<p>The students in the summer semester of 2024 were asked a total of 1,848 medical questions and got them right 78% of the time. On the comprehensive final exam, the students were asked 46 questions with an average Bloom's level of 4.9 to evaluate their knowledge of various medical emergencies. The students in the summer 2024 cohort were able to successfully answer these questions correctly 62.7% this still needs to improve but this is an improvement from previous semesters.</p>

		were at a Bloom's level of 4 or higher with an average Bloom's level of 4.93 and got 60% of them correct. The data indicates that the students are not being taught to higher thinking levels to get them to analysis, synthesis or evaluation of the material. This needs to be monitored in future semesters.	
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Assessment of AAS.PS and CRT.PS Programs

On the next few pages, you will see the assessment conducted:

EMS-061 Fundamentals of Paramedicine I	
<p>During the Spring semester of 2024 there were 28 students enrolled in this course.</p> <p>1 student moved out of state and was unable to finish the course</p> <p>2 students decided that the course was more demanding than they had anticipated and weren't going to be able to fulfill the requirements of the program.</p> <p>1 student had some unexpected medical issues that arose and the student chose to withdraw to take care of those issues.</p> <p>1 student decided that EMS was no longer the field he wanted to pursue as a career and withdrew.</p>	
Identify epidemiology and physiology of shock in any age trauma patient.	This course is taught in the spring semester only. During the spring semester of 2024 there were 23 students in this course that took the final exam. There were 4 questions on the final exam that evaluated the students' knowledge in this area. The average Bloom's level for those questions was 3.75 and 90.75% of the students answered these questions correctly.
Explain the paramedic's role in decreasing mortality and morbidity in the trauma patient.	This course is taught in the spring semester only. During the spring semester of 2024 the 23 students were given 36 questions on the mortality and morbidity of the trauma patient. 10 of those questions were Bloom's level between 4-6 and 26 questions that had a Bloom's level between 1-3. The average Bloom's level was 2.72. The lower Bloom's level questions were answered correctly 58.96% of the time and the higher Bloom's level questions were answered correctly 73.1% of the time. This data suggests that the students may be looking to deep into questions and this material needs to be reviewed during their board preparation.
List 6 shock syndromes, signs, symptoms and treatment plans for each.	This course is taught in the spring semester only. During the spring semester of 2024 the 23 students that took the final exam were given 10 questions to evaluate knowledge on this topic. 5 were higher level Bloom and 5 were lower-level Bloom. The higher-level Bloom questions were answered correctly 68.2% of the time and the lower Bloom's

	level courses were answered correctly 56.4%. This data suggests that students did not understand this material and the program needs to review the manner in which this topic covered in the course.
EMS-062 EMS Pharmacology	
Describe the components of the parasympathetic and sympathetic nervous system.	During the course the students were given a written evaluation pertaining to the sympathetic and parasympathetic nervous systems. The written evaluation consisted of 20 questions with a Bloom's level of 1.7. The students answered questions correctly 87.05% of the time. This is lower-level evaluation and the data indicates that the student in this course have a basic knowledge and comprehension of the nervous system.
List the sources of drugs and give examples of each.	Throughout the semester complete drug cards for 130 medications to identify the medications classifications, indications and dosages the average score on this written assignment was
Demonstrate the safe administration of medications via the IM/SQ/IV and IO routes.	In the lab setting students administered 102 different simulated medications under the supervision of laboratory instructors. In the clinical setting successfully administered a total of 805 medications in various routes and averaged 42.3 medications per student throughout this course.
List indications/contraindications of all pharmacological agents given in the prehospital setting.	At the conclusion of the course the students were given an oral exam to evaluate the knowledge and application of medication indications/contraindications of medications given in a prehospital setting. All 20 students that took this exam were successful on the first attempt and the average score was 25.42/30.
Recall doses, routes, indications, contraindications, and side effects of 10 prehospital medications.	At the conclusion of the course an oral exam was given to evaluate the students' ability to remember and comprehend the comprehensive information on the most common used medication in the prehospital setting. All students were successful on the first attempt and the average score was 11.7/12.
EMS-064 Paramedic Care Skills I	
Demonstrate complete patient assessment using inspection, palpation, and auscultation with medical history.	This course is taught in the spring semester only. During the spring semester of 2024 on day one of class 27 students were given a basic scenario to assess where they stood with their ability to complete an assessment at basic level to learn where they need to progress through the semester. All 28 students have the ability to complete a basic assessment but need to work on creating a systematic approach and developing a deeper assessment level as a paramedic. There is no score given on this assessment, assessing the basic competencies is given a successful or unsuccessful rating. At the conclusion of the semester the students were given a final simulation to test their competency on assessment skills, all 27 students successfully inspected, palpated, and auscultated the chest of a trauma patient and completed this competency on the first attempt.

Demonstrate proper treatments in various traumatic situations for patients of all ages.	This course is taught in the spring semester only. During the spring semester of 2024 students were given individual lab assignments of hemorrhage control, splinting techniques and spinal motion restriction procedures at the conclusion of the semester all 28 students completed skills check offs to demonstrate competency in these areas all 28 students were successful in this skill evaluation on the first attempt.
Demonstrate airway management with endotracheal tube.	This course is taught in the spring semester only. Prior to release for clinical time. The program's medical director and associate medical director came into the lab to evaluate competency on this skill. Prior to the assessment the students are given 3 lab periods to learn and achieve basic entry level competency with the skill. In the lab prior to the terminal airway competency check off the students averages 9.6 intubations per students and the recommended minimum by accreditation is 2 in the lab. 26 students were present for this evaluation. The students were evaluated on intubation of both pediatric and adult patients. All students were successful in this evaluation, feedback given to the students to work was good communication with their team to ensure all necessary equipment was present and to be confident. 2 students needed to 2 attempts on the adult intubation check off.
Demonstrate aseptic technique and safe insertion of IV/IO or implanted infusion device.	This course is taught in the spring semester only. During the spring semester of 2024 the students completed an average of 6 intraosseous (IO) placement skills at 100% success rate in the lab under instructor supervision. During lab time the students averaged 8 IV starts per student prior to clinical release and all 25 students started a minimum of 1 IV on a live person to verify competency. In the lab 1 student struggled with IV skills and needed to be brought back into the lab for remedial training. The recommended minimum by accreditation in the lab is 4 per student.
Demonstrate safe performance of Cry (surgical and needle), chest decompression, pericardiocentesis.	This course is taught in the spring semester only. During the spring semester of 2024 there were 25 students that participated in this skill evaluation and the students average 6 cricothyrotomies per student in the laboratory setting by the end of the course. The minimum recommendation for this skill by accreditation is 2. The students completed an average of 3.5 chest decompressions and the recommended minimum by accreditation is 2. Pericardiocentesis is no a required skill to be evaluated by accreditation standard as it is not practiced much by paramedics at this time. It still required by the EMS educational standards to be taught, the students did complete 1 of these procedures each in the lab prior to the end of the semester.

EMS-068 Clinical Experience I

During the spring semester there were 27 students enrolled in this course that is taught concurrently with EMS-061 and EMS-064. The students that withdrew from EMS-061 also withdrew from this course; 4 of which withdrew prior to the completing any clinical time. 3 additional students were unsuccessful in this course during this semester and failed to complete the required hours. 2 of those students filed complaints stated that they were not informed that failure to complete the required

hours would cause them to fail the course. These 2 students were allowed to make up the missing hours and allowed back in the program to complete it out. The 3 rd student did not continue on or seek to be able to continue on. The program implemented processes to clear up any potential communication issues on course requirements.	
Apply emergency services knowledge to trauma situations.	This course is taught in the spring semester only. In the clinical setting during the spring semester the 24 students that completed clinical time treated an average of 7.8 trauma patients either in an emergency room or in a prehospital setting.
Demonstrate appropriate documentation n skills of a trauma patient.	This course is taught in the spring semester only. During the spring semester of 2024 the students completed an average of 8 prehospital care reports during the semester with an average of at least 2 reports pertaining to the care of trauma patients.
Demonstrate professionalism in a work environment.	This course is taught in the spring semester only. The students are evaluated on their affective domain in 12 areas and a total score of 36, the average score for the 24 students that made it to the end of the course was 30 out of 36. The most common areas of concern are self-confidence, communication, and teamwork. These areas are not uncommonly low at this point in the program as the students are just learning how to work as paramedics and not as EMT-Basics.

EMS-071 Fundamentals Paramedicine II

There were 21 students registered for this course to continue from EMS-061, 064 and 068 taught in the spring of 2024. Prior to the starting date of this semester one student reported a serious medical situation and needed to withdraw and come back during the next cohort. 1 student quit coming to class for unknown reasons and a third student had a life change and needed to take a step back to get some personal situations in order and would like to come back with the next cohort. 18 students successfully completed this course and the concurrent courses EMS-074 and EMS-078, taught in the summer of 2024.	
Formulate treatment plan for patients of various ages based on assessment data.	At the conclusion of this course 18 students were given a comprehensive final exam and 26 questions on that exam evaluated their knowledge on treatment plans for patients of different ages, specifically those in the pediatric population. The average Bloom's level for those questions 3.3. Questions asked in the lower Bloom's level were answered corrected 66.37% of the time and those in the higher Bloom's level were answered correctly 66.38% of the time. The data suggests that students have lower knowledge level of the material in this area and the material taught needs to be reviewed prior to students' program completion and the material needs to be monitored in future semesters to see if the curriculum needs revised.
Identify complications and risks associated with special needs patients.	On the written final exam at the end of the course students were asked 13 questions on patients in special populations 5 were Bloom's level 1-3 and 8 were Bloom's level of 4-6. The lower Bloom's level questions were answered correctly 74.4% of the time and the higher Bloom's level questions were answered correctly 67.25% of the time. The data indicates that the students are successful in knowledge, comprehension, and application but might struggle with application, synthesis and evaluation of the material. This material needs to be

	taken to a deeper level with the students during their board review time.
Manage a patient with any medical or trauma emergency in the prehospital setting.	The students were given 23 questions regarding trauma to pull information forward from the previous semester but application on pediatric patients and special populations with regard to trauma care. 5 of the questions were lower Bloom's level and 18 were higher Bloom's level questions. The lower Bloom's level questions were answered correctly 71.83% of the time and the higher Bloom's level questions were answered correctly 77.8% of the time. The students are meeting the minimum benchmark in this area set by the national registry and accreditation. This information needs to be monitored continually to ensure the students continue to meet this bench mark prior to program completion.
EMS-074 Paramedical Care Skills II	
Manage a pediatric patient during various emergency situations.	At the midpoint of the semester all 18 students were given a pediatric respiratory simulation, all 18 students were given a simulated pediatric patient in a medical emergency, all 18 student successfully completed this simulation on the first attempt. At the conclusion of the semester the students were given a pediatric trauma simulation, all 18 students in the course were able to complete this simulation on the first attempt.
Manage a patient during labor and delivery of a baby with complications and without complications.	In the lab setting using a high-fidelity birthing simulating mannequin all 18 student successfully completed 1 complicated delivery that was a breech birth, an uncomplicated delivery with normal newborn care. at the midpoint of the semester and at the conclusion of the semester were given skills test out with an average of 2 complicated deliveries with prolapsed cords.
Assess and treat a neonatal patient.	At the conclusion of the summer semester the 18 students that completed this course were given a comprehensive skills exam on treatments from neonatal patients. All 18 students successfully treated this patient with the help of a partner in the back compartment of the ambulance simulator. Confidence was the biggest concern in this simulation, this is not uncommon when treating neonatal patients.
Identify complications and risks associated with special needs patients.	At the conclusion of this topic being covered all the semester all students were given a written assessment that consisted of 25 questions 17 were lower Bloom's level; those were answered correctly 76.05% of the time. 8 of them were higher Bloom's level and those were answered correctly 66% of the time. On the final exam the students were given 13 questions on this area. The higher Bloom's level questions were answered correctly 67% of the time and the lower Bloom's level questions were answered correctly 74% of the time. The data indicates that the student retained the information from the time it was presented until the end of the course. The higher Bloom's levels were slightly below the national registry benchmark and this area will need to be monitored and reviewed in upcoming semesters.

Formulate treatment plan for patients of various ages based on assessment data.	At the conclusion of the semester the given 3 high-fidelity simulations to evaluate their ability to assess patients of various ages, medical or trauma conditions and treat the patient appropriately. All 18 students were able to successfully complete all three of these hands-on exams on the first attempt.
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EMS-078 Clinical Experience II

Formulate and implement plan of care for all emergency situations.	During the summer semester of 2024 the students spent time on the labor and delivery floor of the hospitals and assisted in an average of 1.5 deliveries either complicated or uncomplicated. The students also spent 4 hours in the pediatric clinic and saw an average of 10 pediatric patients. In the prehospital setting students ran an average of 8 calls in various medical and traumatic situations. All of which the students submitted written plans of care for utilizing the school's software system.
Demonstrate appropriate written communication skills.	The 18 students that completed this semester successfully completed an average of 8 prehospital written patient care reports utilizing the software platform.
Demonstrate professionalism in a work environment.	At the end of the summer semester the students were evaluated on their affect domain areas and the average score was an average of 31.5/36. The most common areas of concern are self-confidence, respect and communication. There have been some exercises developed to work on these skills moving forward.

EMS-084 Paramedical Care Skills III

This course is only taught in the fall, and is concurrently taught with EMS-086 and EMS-088. This course was taught the Fall semester of 2023 and had 20 students enroll and complete the course.	
Properly identify cardiac dysrhythmias.	At the conclusion of the semester all 20 students were given an oral exam where they had to correctly 12 out of 16 cardiac rhythms. 20 students took this oral exam and 1 student failed this exam on the first attempt but was successful on the second attempt. all other students passed this on the first attempt. The average score on this exam was 14.68
Demonstrate proper electrical or chemical interventions for cardiac dysrhythmias.	At the end of the course students have to complete 3 code stations consisting of a fast cardiac rhythm, a slow cardiac rhythm and an absent cardiac rhythm. Within each exam they have to properly identify and treat in a hands-on manner. 4 students failed the first attempt at the fast treatment but all four passed the second attempt. 2 students failed the slow portion of the exam but passed the slow cardiac rhythm on the second attempt. 6 students failed the absent rhythm portion of the exam on the first attempt, all 6 students passed on the second attempt. 12 students passed all stations on the first attempt.

Demonstrate medication administration using a variety of techniques.	Throughout the course the students are required in a lab environment to give medications to a mannequin via IM routes, IV routes, and infusion routes. Throughout the semester the 20 students in this course averaged 1.45 IM injections per student, 1.2 IV bolus medications per student and 1 infusion per student in the lab setting. During the semester they concurrently administer medications in the clinical setting. During this semester the students averaged 1.6 IM injections per student, 7.6 IV bolus medications per student and 1.45 IV infusion medications per student.
Identify medications used in medical and cardiac emergencies.	At the conclusion of the semester students are given a written scenario exam to evaluate their ability to identify pharmacological treatment of medical or cardiac emergencies the average score on this exam was 71.78% This data indicates that the students are able to apply the information that they learned in this course.
Identify and treat STEMI.	In a high-fidelity hands-on practical exam at the conclusion of the semester, students are evaluated on their ability to identify and properly treat a STEMI. All 20 students successfully passed this exam on the first attempt with an average score of 13.29/15.

EMS-086 Fundamentals Paramedicine III

Identify epidemiology, assessment, and management of respiratory disorders.	Throughout the semester 20 students that were in the 3 rd semester of the 2023-2024 paramedic cohort on written assignments were asked a total of 34 questions regarding patients with respiratory disorders. 17 of them were lower Bloom's level and 17 of them were higher Bloom's level. The lower Bloom's level questions were answered correctly 82.0% of the time. The higher Bloom's level questions were answered correctly 89.15% of the time. This data is a good indicator that students were competent in their knowledge, and evaluation of respiratory disorders.
Discuss management of aged patient with an environmental and toxicology emergency.	During the semester the students were asked 35 questions about environmental and toxicological patients. 8 questions were higher level Bloom's level and the remaining 27 were lower Bloom's level. The higher-level Bloom's questions were answered correctly 85.91% of the time and the lower Bloom's level questions were answered correctly 84.89%. This indicates that the students have knowledge in this area and are able to evaluate that material on a higher level. This will be continued to be monitored
Describe management sequence for the patient with various medical conditions.	At the conclusion of the course the students were given a final exam and 87 questions on that exam evaluated their knowledge on management of patients with medical conditions. The questions have an average Bloom's level of 2.64. 32 questions tested the students higher-level understanding of the material and were answered correctly 70.0% of the time. This is the minimum benchmark of the National Registry of EMS. The remaining 55 questions looked at the students lower-level understanding of the medical material. The higher-level questions were answered correctly 71.9% of the time. Students have a minimal understanding of the medical material and

	this will need to be monitored in future semesters to evaluate for possible curriculum adjustments.
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EMS-088 Clinical Experience III

Apply knowledge learned in the classroom to a cardiac patient.	Throughout the course students spend 12 hours in a cardiac cath lab, the ICU, the ER and the prehospital setting assessing and treating cardiac patients. The students averaged 19 cardiac patients per student in a clinical setting throughout the course.
Demonstrate appropriate pharmacological skills.	Through the course students administered a total of 213 different medications in the clinical setting under the supervision of preceptors. The per student average was 11.2 medications administered per student, IM, IV and Infusion methods were all used.
Demonstrate skills related to cardiac medical patients.	Through the clinical time in this course the students demonstrated electrical treatment of cardiac patients, average was 1 electrical treatment per student during the semester.
Demonstrate professionalism in a work environment.	At the conclusion of the course the students were evaluated in 12 affective areas. The average score was 30.9/36. The areas of concern were confidence and communication. This is not uncommon at this point in the program, this semester is where they focus on transitioning to a leadership role and there is a small set back in confidence when the transition occurs. This needs to be monitored continually to ensure growth prior to program completion.

EMS-092 Fundamentals Paramedicine IV

20 students started this course, but one student was removed from the program prior to completion for failure to meet the pre-capstone clinical requirements and failure to fulfill the agreement of the clinical agreement. The student would like to return the Spring of 2025 to complete. There were 19 students that took this exam and there were 2 students that fell below the 70% minimum benchmark for the national registry pass rate. 1 student scored a 62% and the other student scored a 49%. However, there was a discrepancy in the passing language in the syllabus and the handbook. The syllabus listed a minimum passing score on the exam but the program handbook listed only a passing score in the course. Because of this discrepancy they students were allowed to pass the course. The program has clarified moving forward that on the comprehensive program final given at the end of this course students must pass with at least a 70% on the exam and maintain an 80% in the course.	
Describe the role of the paramedic as a member of the healthcare continuum.	At the complete of the course students had been given 683 questions on EMS systems and had gotten 85.6% of them correct. They also received 165 EMS system Communications and had gotten them correct 92.1% of the time. The data indicates that the students on a comprehensive level understand and can apply knowledge to the role of the paramedic within the EMS system.
Demonstrate the safe use of personal protective equipment.	By the end of this course the students had correctly answered 77.4 % of 945 questions regarding workplace wellness and 91.4% of 129 questions on public health. These questions evaluated the application of the students' knowledge of personal protective equipment.
Explain the importance of medical legal concepts in emergency medicine.	At the conclusion of this course the students had answered 167 questions on patient documentation and got them right 77.2% of the time. The students were given 151 questions on medical/legal and

	ethical aspects of EMS care and got 77.4% of them correct. The students in the course met the benchmark for this outcome.
Recall essential aspects of pathophysiology in the human body.	Throughout the program and the course, the students were evaluated on them of anatomy and physiology and answered 879 questions correctly out of the 1, 164 questions given. The students were also given 612 questions specific to pathophysiology of the human body and got 408 of the correctly.
Recall the 5 steps of the grieving process and management of each.	At the conclusion of the course students had been given 205 questions pertaining to therapeutic communications and got them right 74.1% of the time and 21 questions on life span and got 43%. This data indicates a need to evaluate the life span curriculum to ensure that it is covered toughly.
EMS-094 Paramedical Care Skills IV	
Manage a pediatric patient during various emergency situations.	At the conclusion of this course students were given an oral examination. During this exam students were able to manage pediatric patient's emergency situations. The average score on the oral exam was 13.5/15. All students successful treated the pediatric patient on the first attempt.
Manage a patient during cardiac emergencies.	In an integrated out of scenario given at the completion of the program students successfully treated a comprehensive cardiac patient. 1 student was unsuccessful in the first attempt but was successful in the second attempt. The average score on this exam was 19.66/24.
Manage a trauma patient experiencing life threatening conditions.	At the conclusion students were given a comprehensive trauma scenario on a high-fidelity mannequin. All 19 students successfully treated the trauma patient on the first attempt. The average score was 38.7/42.
EMS-098 Paramedic Capstone Internship	
Formulate and implement plan of care for all emergency situations.	During this course students completed a total of 340 patient encounters in the field during their Capstone Internship. Each student completed a minimum of 20 per student. At least 10 of the 20 were at an advanced level. 1 student did have to redo 16 of her Capstone Calls because the student was not being properly supervised by a preceptor at the time of the initial encounters. The program has developed additional training for preceptors and students to address any potential communication misunderstanding.
Demonstrate appropriate written communication skills.	All students wrote a minimum of 20 patient care reports for variety of medical, or trauma patients of all groups and conditions.
Formulate a plan of care for the critically ill patient.	Throughout the entirety of the program the students treated a total of 816 medical patients and averaged 42 critically ill medical patients per student. Including the written formulation and execution of treatment plans.

EMT and Paramedic Shortage

In speaking with local ambulance organizations and firehouses, EMTs and paramedics are in great demand. Not only is it important for graduates of the program to be successful in their licensing, but also the need to educate and train EMTs and paramedics in the shortest timeframe possible is necessary. Jasmine worked with the paramedic services professional advisory committee. A program model has been modified to include semester breaks as course time to shorten the length of the program. Below are the changes as submitted to the September 2024 Curriculum Committee Meeting effective Spring 2025.

Items Being Submitted to Curriculum Committee			
Course/Program	Revisions	Justification	Requested Effective Date
AAS.PS and CRT.PS	Adding Special Admissions Courses into Program Model	To ensure students receive financial aid for all classes in the Paramedical Services AAS and CRT programs, we have added the courses into the program model and, will in turn, add them into the Degree Audit.	Spring 2025
	Adding EMS-050 and BIO-050 to CRT and EMS-050 to AAS in a Special Admissions Requirements section	To represent that the requirements must occur before acceptance into the program, we recommend adding a Special Admissions Requirements section prior to the first year, first semester section. This requires additional programming by ISS. Brenda and Jana are working on this addition.	
AAS.PS	Removed AHE-041, AHE-055, and an elective from AAS	The CRT includes EMS-050 and BIO-050. In the AAS, EMS-050 was added, and AHE the courses added last year were removed. <i>These actions require a vote and a submission to the ICCB.</i>	
EMS-0##	Course Revisions	The Paramedical Services program advisory board has been an active part of making the changes below.	Spring 2025
EMS-061	+.5 credits	The ICCB had 5 SCH (5 lab) and we had 4.5 SCH (4.5 Lab) in Colleague. This change makes us consistent with ICCB.	

	Making the Course Repeatable	This course may be retaken as a refresher if students are having difficulty passing the national board exam. <i>This action requires a vote and a submission to the ICCB.</i>	
	Updating course and learner outcomes	Changes were also made to course and learner outcomes.	
EMS-064	Aligning Colleague Lecture Hours with ICCB	The course outline was inconsistent with what ICCB's records show, so this change will align LLC's records in Colleague with ICCB records. ICCB has 4 SCH with 2 Lecture, 5 Lab; Colleague has 4 SCH with 1.5 Lecture, 5 Lab. <i>This action requires a vote and a submission to the ICCB.</i>	
	Making the Course Repeatable	This course may be retaken as a refresher if students are having difficulty passing the national board exam. <i>This action requires a vote and a submission to the ICCB.</i>	
	Updating course and learner outcomes	Changes were also made to course and learner outcomes.	
EMS-071	Making the Course Repeatable	This course may be retaken as a refresher if students are having difficulty passing the national board exam. <i>This action requires a vote and a submission to the ICCB.</i>	
	Updating course and learner outcomes	Changes were also made to course and learner outcomes.	
EMS-074	Aligning Colleague Lecture Hours with ICCB	The course outline was inconsistent with what ICCB's records show, so this change will align LLC's records in Colleague with ICCB records. ICCB has 1 SCH with 1 Lecture, 1 Lab; Colleague has 1 SCH with 0.5 Lecture, 1 Lab. <i>This action requires a vote and a submission to the ICCB.</i>	
	Making the Course Repeatable	This course may be retaken as a refresher if students are having difficulty passing the national board	

		exam. <i>This action requires a vote and a submission to the ICCB.</i>	
EMS-084	Updating course and learner outcomes	Changes were also made to course and learner outcomes.	
	Making the Course Repeatable	This course may be retaken as a refresher if students are having difficulty passing the national board exam. <i>This action requires a vote and a submission to the ICCB.</i>	
EMS-086	Updating course and learner outcomes	Changes were also made to course and learner outcomes.	
	Making the Course Repeatable	This course may be retaken as a refresher if students are having difficulty passing the national board exam. <i>This action requires a vote and a submission to the ICCB.</i>	

Laker Learning Competencies

Laker Competency Assessment Rubric

General Education Committee – 2024

LAKE LAND
COLLEGE

Lake Land College creates and continuously improves an affordable, accessible and effective learning environment for the lifelong educational needs of the diverse communities we serve.

Introduction

In 2022-2023, the General Education Committee created eight Laker Learning Competencies that replaced the General Education Goals. To accomplish this, the committee adapted the Association of American Colleges and Universities VALUE Rubrics to fit Lake Land College's assessment needs. The next step was to create the rubrics for the goals to provide a consistent cross-college measure of foundational knowledge and skills that are considered hallmarks of postsecondary education. By Spring 2024, the rubrics were ready for faculty feedback. During Summer 2024, the Cabinet approved the new Laker Learning Competencies and rubrics.

During this process, the college selected a new assessment software that met its data tracking and reporting needs. The college has used Weave from Fall 2010 through August 2025, which is when the Weave contract ends. In Fall 2023, demonstrations of three software options were offered to faculty and staff to attend. HelioCampus was selected as the software that best met the college's needs. The one-year overlap of Weave and HelioCampus allows the college to continue current assessment efforts while piloting and training faculty and staff on the new software.

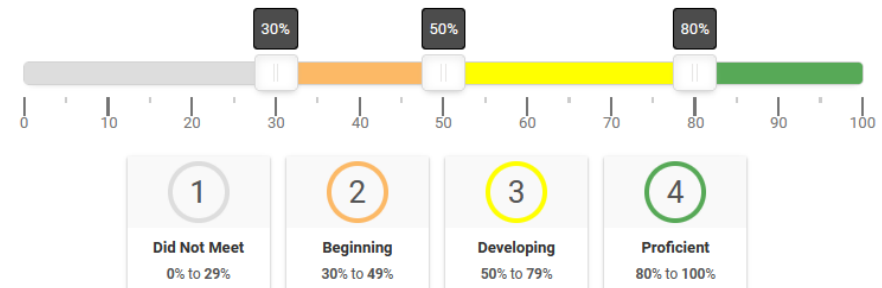
Data preparation and training occurred with staff and faculty upon purchase in Spring 2024 through early Fall 2024. Faculty volunteered to pilot HelioCampus. The college is providing ongoing training on Bloom's Taxonomy, Laker Learning Competencies and HelioCampus. Since Summer 2024, faculty have been adopting primary and secondary Laker Learning Competencies and updating learning outcomes on their course outlines to reflect appropriate Bloom's Taxonomy levels. This process continues as faculty revise curricula through the Curriculum Committee.

In Fall 2024 through Spring 2025, the courses, Laker Learning Competencies and rubrics are being connected to HelioCampus and Canvas to ease assessment data collection, analysis and reporting. From Spring 2025 and beyond, training and norming sessions for the Laker Learning Competencies will prepare faculty to use the rubrics with course assessment artifacts. Lake Land College anticipates a full transition from Weave to HelioCampus in Fall 2025.

Guidance for Divisions in Using the Rubrics

The rubrics on the following pages help faculty measure the course and program outcomes related to their areas of study. They are intended to be used with a course or program outcome that the faculty needs to measure and improve. Each department will determine which artifacts (papers, projects, labs, etc.) the rubrics will measure, ideally selecting an important concept the students have practiced and are demonstrating their competency. The assignment proficiency scale thresholds include:

- 1 - Does Not Meet (0-29%)
- 2 - Beginning (30-49%)
- 3 - Developing (50-79%)
- 4 - Proficient (80-90%)



Communication

Students communicate effectively and appropriately through the exchange of information.

	4 Proficient	3 Developing	2 Beginning	1 Does Not Meet
Organization	Organizational pattern (specific introduction and conclusion, sequenced material within the body and transitions) is clearly and consistently observable.	Organizational pattern (specific introduction and conclusion, sequenced material within the body and transitions) is occasionally observable.	Organizational pattern (specific introduction and conclusion, sequenced material within the body and transitions) is to a small degree observable.	Organizational pattern (specific introduction and conclusion, sequenced material within the body and transitions) is not observable.
Delivery/Tone	Delivery techniques and tone are clearly and consistently thoughtful, compelling and appropriate, reflecting an understanding of voice, authority and audience.	Delivery techniques and tone occasionally are thoughtful, compelling and appropriate, reflecting an understanding of voice, authority and audience.	Delivery techniques and tone are basic but appropriate.	An understanding of delivery techniques and tone is not present.
Supporting Material	Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that effectively supports the student's credibility/authority on the topic.	Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that partially supports the student's credibility/authority on the topic.	Insufficient supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make reference to information or analysis that minimally supports the student's credibility/authority on the topic.	Insufficient supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make reference to information or analysis that doesn't support the student's credibility/authority on the topic.
Central Message	Central message is clear and consistent with the supporting material and is memorable.	Central message is basically understandable but is not often repeated and is not memorable.	Central message can be deduced but is not explicitly stated.	Central message cannot be deduced and is not explicitly stated.
Mechanics	Uses straightforward language that effectively conveys meaning to the audience. There are few to no grammar or readability errors.	Uses language that generally conveys meaning to the audience. There are a few grammar or readability errors.	Uses language that generally conveys meaning to the audience. There are several errors that distract the audience.	Uses language that does not convey meaning to the audience. There are major grammar and readability errors.

Creative Thinking and Problem Solving

Students think creatively and solve problems by successfully combining knowledge in new ways.

Criteria	4 Proficient	3 Developing	2 Beginning	1 Does Not Meet
Define/Identify Problem	Identifies multiple problems and approaches within specific contexts (background, history, challenges, symptoms, or knowledge gaps).	Identifies a single problem and approach within a specific context (background, history, challenges, symptoms, or knowledge gaps).	Identifies a single problem or approach. Does not offer specific context (background, history, challenges, symptoms, or knowledge gaps).	Shows little originality . Uses a single approach. Does not offer context.
Innovative Thinking	Effectively expands upon a unique idea, question, format, or product to create new knowledge or knowledge that crosses boundaries.	Creates a unique idea, question, format, or product to create new knowledge or knowledge that crosses boundaries.	Creates an idea, question, format, or product to create new knowledge that shows little originality .	Does not offer a unique idea, question, format, or product to create new knowledge.
Solving Problems	Offers clear solutions that address multiple contexts and perspectives.	Offers developing solutions that address multiple contexts and perspectives.	Offers solutions that address a few contexts and/or perspectives but needs improvement .	Does not offer solutions that address contexts and perspectives.
Implementing Solutions	Effectively offers and evaluates evidence and multiple solutions/perspectives in a manner that clarifies biases or addresses logical, ethical, psychological, or cultural concerns.	Offers and evaluates evidence with a single solution/perspective in a manner that clarifies biases or addresses logical, ethical, psychological, or cultural concerns.	Offers evidence with a single solution/perspective. Evaluation clarifies biases or addresses logical, ethical, psychological, or cultural concerns but needs improvement .	Does not offer evidence and/or evaluation. Does not address biases. Does not address logical, ethical, psychological, or cultural concerns.
Connecting, Synthesizing, Transforming	Provides a coherent framework to evaluate the outcome of the chosen solution.	Provides a framework to evaluate the outcome of the chosen solution.	Provides a framework to evaluate the outcome of the chosen solution but needs improvement .	Does not provide ideas on how to evaluate the outcome of the chosen solution.

Critical Thinking

Students connect knowledge from various disciplines to formulate logical conclusions and judgments.

Criteria	4 Proficient	3 Developing	2 Beginning	1 Does Not Meet
Explanation of Issues	The issue is stated and described thoroughly .	The issue is stated but is vaguely described.	The issue is stated without description.	The issue is not stated.
Influence of Context and Assumptions	The issue's context is clear and relevant . The assumptions and evidence regarding the issue are discussed well .	The issue's context is clear , and assumptions about the issue are discussed . Assumptions and evidence are relevant to the context or position.	Context and assumptions regarding the issue are present but are not discussed . Assumptions or evidence might not be relevant to the context or position.	Does not present context or assumptions with explanations.
Evidence	Evidence is presented with clear sources and is effectively analyzed and evaluated in context to the beliefs of experts and others.	Evidence is presented with clear sources. Evidence is based on personal, public and expert opinion. Evaluation of the evidence is present .	Evidence is presented with sources, but the reliability of the sources is questionable (more personal or public opinion than expert opinion). Evaluation of the evidence is sparse .	Evidence is not presented or, if presented, the source of information is unclear or unreliable.
Student's Position	The position on the issue is clear and is discussed thoroughly . Multiple sides are offered, and a thesis or hypothesis is stated and supported well .	The position on the issue is present . Multiple sides are offered, and a thesis or hypothesis is stated and supported .	The position on the issue is not clear yet . Multiple sides are offered but not well enough to form or support a thesis or hypothesis.	A position is not present. Multiple sides are not offered.
Conclusions and Related Outcomes	Conclusions and judgments are clearly and logically contextualized with the information presented. The consequences or implications are discussed thoroughly .	Conclusions and judgments are present and are contextualized with the information presented. Some improvement in presenting consequences or implications could be made.	Conclusions and judgments are present but are not contextualized. Consequences or implications are unclear .	Conclusions and judgments are not present or may be oversimplified, distorted, or exaggerated .

Global and Cultural Literacy

Students realize that society is a culturally diverse and global environment with differing opinions, practices and ideas.

Criteria	4 Proficient	3 Developing	2 Beginning	1 Does Not Meet
Cultural Diversity	Effectively analyzes connections between worldviews, power structures and experiences of multiple cultures in historic or contemporary contexts. The tone and content are respectful of other cultures.	Moderately analyzes connections between worldviews, power structures and experiences of multiple cultures in historic or contemporary contexts. The tone and content are respectful of other cultures.	Partially analyzes basic connections between worldviews, power structures and experiences of multiple cultures in historic or contemporary contexts. The tone and content need improvement to be respectful of other cultures.	Does not make connections between worldviews, power structures and experiences of multiple cultures. The tone and content are not respectful of other cultures.
Perspective Taking	Effectively synthesizes multiple, contradictory perspectives (global, civic, cultural, ethical, social, and/or environmental) when investigating natural and human systems.	Moderately synthesizes multiple, contradictory perspectives (global, civic, cultural, ethical, social, and/or environmental) when investigating natural and human systems.	Partially synthesizes a perspective (global, civic, cultural, ethical, social, and/or environmental) when investigating natural and human systems.	Does not synthesize a perspective (global, civic, cultural, ethical, social, and/or environmental) when investigating natural and human systems.
Personal and Social Responsibility	Effectively analyzes the consequences of global systems. Recommendations are contextualized with an understanding of personal and civic responsibility.	Moderately analyzes the consequences of global systems. Recommendations are contextualized with an understanding of personal and civic responsibility.	Partially analyzes the consequences of global systems. Recommendations are partially contextualized with an understanding of personal and civic responsibility but needs improvement .	Does not offer consequences of global systems. Personal and civic responsibility is not considered.
Understanding Global Systems	Effectively analyzes historic and contemporary connections to global systems and the effects of human actions on complex problems.	Moderately analyzes historic and contemporary connections to global systems and the effects of human actions on complex problems.	Identifies basic historic and contemporary connections to global systems and the effects of human actions on complex problems but needs improvement .	Does not identify basic historic and contemporary connections to global systems and the effects of human actions on complex problems.
Applying Knowledge to Contemporary Global Context	Effectively evaluates complex solutions to global challenges within multiple contexts (contemporary, historical, societal, ethical, civic, cultural and scientific).	Moderately evaluates complex solutions to global challenges within multiple contexts (contemporary, historical, societal, ethical, civic, cultural and scientific).	Identifies one solution to global challenges within multiple contexts (contemporary, historical, societal, ethical, civic, cultural and scientific).	Does not identify a solution to global challenges within multiple contexts (contemporary, historical, societal, ethical, civic, cultural and scientific).

Information and Technology Literacy

Students not only identify when information is necessary, but they also find, evaluate and use that information effectively with the appropriate technological tools.

Criteria	4 Proficient	3 Developing	2 Beginning	1 Does Not Meet
Determine the Extent of Information or Technology Needed	Effectively select the appropriate information sources and technology to complete the task.	Somewhat effectively select the appropriate information sources and technology to complete the task.	Minimally select the appropriate information sources and technology to complete the task.	Information sources and technology selected do not relate to the assignment.
Access the Needed Information or Technology	Effectively access information and use the appropriate technology to complete the task.	Somewhat effectively accesses information and occasionally uses the appropriate technology to complete the task.	Ineffectively uses appropriate information and ineffectively uses the technology to complete the task.	Inappropriate information usage and inappropriate technology to complete the task.
Evaluate Information / Technology Used Critically	Effectively chooses a variety of information sources and/or technology tools appropriate to the task. Evaluate sources and tools using appropriate criteria (such as relevancy, currency and authority).	Chooses information sources and/or technology tools somewhat appropriate to the task. Evaluate sources and tools using somewhat appropriate criteria.	Chooses insufficient information sources and/or technology tools appropriate to the task. Evaluates sources and tools using insufficient criteria.	Inappropriately chooses information sources and/or technology tools. No evaluation of sources present.
Access and Use Information or Technology Ethically and Legally	Demonstrates a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information/technology. For example, citations, paraphrasing, references, copyright.	Demonstrates a partial understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information/technology.	Ineffectively demonstrates an understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information/technology.	Demonstrates no understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information/technology.

Professional Skills and Ethics

Students demonstrate professional business skills and ethical accountability.

Criteria	4 Proficient	3 Developing	2 Beginning	1 Does Not Meet
Ethical Self-Awareness	Discusses in detail personal ethical core beliefs and the origins of the core beliefs.	States personal ethical core beliefs and articulates the origins of the core beliefs.	States either personal ethical core beliefs or articulates the origins of the core beliefs but not both.	Unable to recognize personal ethical beliefs and the origins of the core beliefs.
Ethical Interactions with Others	Independently applies ethical perspectives and consistently demonstrates ethical behaviors throughout interactions.	Independently applies ethical perspectives and regularly demonstrates ethical behaviors in interactions.	Recognizes ethical perspectives but inconsistently demonstrates ethical behaviors in interactions.	Unable to effectively assess or recognize ethical perspective issues. Does not demonstrate ethical behaviors in interactions.
Civic Identity and Commitment	Provides extensive evidence of civic engagement and demonstrates value in civic identity and commitment.	Provides indication of some involvement in civic engagement activities.	Provides minimal evidence of involvement in civic engagement activities.	Provides no indication of being involved in civic activities.
Civic Communication (Soft Skills)	Consistently communicates in a civic context to demonstrate an ability to express, listen and adapt ideas and messages based on other perspectives.	Regularly communicates in a civic context, demonstrating an ability to express, listen and adapt ideas and messages based on other perspectives.	Inconsistently communicates in a civic context, demonstrating an ability to express, listen and adapt ideas and messages based on other perspectives.	Exhibits no ability to communicate in a civic context.
Fosters Constructive Team Climate	Values the components of a constructive team climate. Independently demonstrates actions that contribute to a constructive team climate. Provides leadership in achieving the team objective(s). Actions may include verbal and non-verbal communication, motivation and encouraging others.	Values the components of a constructive team climate. Regularly demonstrates actions that contribute to a constructive team climate. Actions may include verbal and non-verbal communication, motivation and encouraging others.	Recognizes the components of a constructive team climate. When instructed or guided, demonstrates actions that contribute to a constructive team climate. Actions may include verbal and non-verbal communication, motivation and encouraging others.	Does not recognize the components of a constructive team climate. Fails to demonstrate actions that contribute to a constructive team climate.
Self-Motivation and Evaluation/Reflection	Consistently evaluates prior experiences inside and outside the classroom in depth to reveal perspectives about educational and life events. Applies this knowledge moving forward to provide a foundation for knowledge, growth and maturity.	Regularly evaluates prior experiences inside and outside the classroom in depth to reveal perspectives about educational and life events.	Inconsistently evaluates prior experiences inside and outside the classroom with some depth to reveal perspectives about educational and life events.	Indicates no motivation for learning from past experiences in educational and life events.

Quantitative Literacy

Students utilize mathematical knowledge to test claims and hypotheses, perform data analysis and recognize patterns in real-life situations.

Criteria	4 Proficient	3 Developing	2 Beginning	1 Does Not Meet
Representation: Statistics, Charts, Graphs and Other Visuals	Accurately represents information in a mathematical format.	Represents information in a mathematical format with minor errors .	Represents information in a mathematical format with significant errors or incorrect portrayals .	No mathematical portrayal of information.
Interpretation	Accurately explains information presented in mathematical forms.	Explains information presented in mathematical forms but occasionally makes mistakes .	Attempts to explain information presented in mathematical forms but makes incorrect conclusions .	No explanation.
Application / Analysis	Accurately analyzes the data drawing reasonable and correct conclusions.	Develops analyses of the data with reasonable conclusions but with minor inaccuracies .	Incomplete analysis of data with significant inaccuracies .	No analysis.
Assumptions	Keen awareness and understanding of assumptions in the experiment and how it affects the outcome.	Somewhat aware of the assumptions in the experiment and lacks complete understanding of how it affects the outcome.	Minimal awareness of assumptions in the experiment and lacks understanding of how it affects the outcome.	Unaware of any assumptions.
Communication	Effectively communicates results using quantitative analyses.	Minor flaws are evident in the communication of results using quantitative analyses	Communicates results using qualitative rather than quantitative analyses .	No attempt to communicate results.

Scientific Literacy

Students identify foundational science concepts and apply the scientific process to real-life situations.

Criteria	4 Proficient	3 Developing	2 Beginning	1 Does Not Meet
Topic Selection	The topic or question is clearly understood or stated and achievable.	The topic or question is stated but lacks depth .	The topic or question is stated but may not be doable or is too broad .	No topic or question provided.
Existing Knowledge, Research, and/or Views	Effectively understands core scientific concepts using correct terminology	Somewhat understands core scientific concepts using mostly correct terminology.	Unclear understanding of core scientific concepts with incorrect terminology.	No overview of knowledge is given.
Design Process	Fully understands the design of the experiment or logic of the argument.	Somewhat understands the design of the experiment or logic of the argument.	Vaguely understands the design of the experiment or logic of the argument.	No understanding of the design or logic provided.
Analysis	Accurate evaluation and interpretation of data or arguments.	Somewhat accurate evaluation and interpretation of data or arguments.	Inaccurate evaluation and interpretation of data or arguments.	No analysis completed
Conclusions	Demonstrates a keen ability to draw conclusions, solve problems, and/or apply information based on evidence provided or prior experience.	Somewhat demonstrates the ability to draw conclusions, solve problems, and/or apply information based on evidence provided or prior experience.	Poorly demonstrates the ability to draw conclusions, solve problems, and/or apply information based on evidence provided or prior experience.	No demonstration of the ability to draw conclusions, solve problems, and/or apply information based on evidence provided or prior experience.

