



Fire Science Technology

<http://www.caspercollege.edu/assessment/index.html>

Instructions: To submit an assessment plan for a specified degree program, please respond to each of the questions below. *Use as much space as you need to describe the degree program assessment plan.* Once this form is completed, please email it as an attachment to kthatcher@caspercollege.edu. For guidelines and/or assistance in developing a plan for assessing student learning, please contact Kathleen Thatcher or consult resources on the Assessment website at <http://www.caspercollege.edu/assessment/index.html>. The Outcomes Committee will review your plan to provide constructive feedback, as well as to identify particular academic departments for potential assessment awards to support continuing assessment efforts.

1. **Degree Program: Fire Science Technology**
2. **Department: Fire Science**
3. **School: Business & Industry**
4. **Person(s) Responsible for Developing Plan: Dale Anderson**
5. **Email: anderson@caspercollege.edu**
6. **Phone: (307) 268-2361**
6. **Date Submitted: 02/02/11**

1. Does this program offer a distance learning degree? **Yes** **No**

(*Note: Please complete a separate Assessment Plan form for each degree program.)

A. Conceptual Assessment Plan Components

Assessment enables an understanding of what students are learning as a result of the program. Assessment findings can be used for a variety of purposes including making decisions regarding curriculum and instruction as well as providing feedback to students.

1. *List your program's mission and goals.*

The Fire Science program will prepare students for a career in the fire service by providing the students with an overview of the field of firefighting, through lectures and practical exercises in all skill levels pertinent to emergency services.

2. *List the student learning outcomes for the degree program addressed by this plan. (Note: Please complete a separate Assessment Plan form for each degree program.)*

The program is designed to provide students with the knowledge and skills necessary for fire service employment or job advancement within the profession, or for transfer to a four-year school for additional training in fire science management.

Students will be able to correctly don self-contained breathing apparatus in less than one minute. Students will be timed in a practical exercise which will involve properly donning a self-contained breathing apparatus. All students will be required to complete this exercise in less than 60 seconds.

Students will participate in an exercise demonstrating the ability to don turnout clothing properly in allotted time.

Students will be required to don firefighting turnout clothing; jacket, pants, boots, hood, helmet and gloves in less than 60 seconds.

Student will have the ability to select and safely raise the correct ladder for each exercise using the different fire service ladders.

Students will be given different fire ground scenarios whereas they will have to choose the correct ladder and safely raise it to its correct location.

Using the correct search and rescue techniques, student will perform a search of a room with obscured vision.

Students will participate in a search and rescue exercise with their vision obscured. The student will have to demonstrate the proper search techniques of a "right-hand or left-hand" search. The student will also have to find the victim in an allotted time of 15 minutes.

Student will demonstrate the ability to perform a medical patient assessment to the standards set by the State of Wyoming Office of EMS.

Students will perform an assessment on a patient complaining of an unknown medical condition.

Student success will be measured on their ability to follow the State of Wyoming Office of EMS practical exam check sheet.

3. *Explain the student learning outcomes relation to the unit mission and goals (i.e. Do the student learning outcomes reflect the unit goals and objectives, further the mission, are rooted in the academic discipline, etc.?)*

The mission of the Fire Science Program is to prepare students for a career in the fire service. The outcomes are based on standards set by the fire service. Therefore the by completing the practical exercises (outcomes) the students are following the mission and goals of the Fire Science Program.

4. *Describe how and by whom assessment findings will be used.*

The assessment of the students will be completed by their instructors who will assess the practical exercises. Representatives of the State Fire Marshall's Office will also be involved in proctoring the State of Wyoming and Pro Broad Firefighter I written and practical exam. A representative of the State of Wyoming Emergency Medical Services will proctor the written and practical exams for the Basic Emergency Care course and Emergency Medical Technician course.

The Director of the Fire Science Program continuously monitors the job placement success of all graduates of the Fire Science program.

B. Implementation Assessment Plan Components

It is important to create a detailed implementation plan that aligns each student learning outcome with each of the following items:

(A) how/where program outcomes are learned,

The program outcomes are discussed in a lecture format and followed up with practical exercises.

(B) what evidence/indicator(s) will be collected, including both direct and indirect evidence,

To become certified students take written and practical tests through the State Fire Marshall's Office and the Office of Emergency and Medical Services. The results of the test provide direct evidence of the students meeting the outcomes for that particular course.

Instructors continually assess the student's level of competency in their course.

Upon gaining employment in the fire service students report their job status to the Director of the Fire Science Program.

(C) how the evidence/indicator(s) will be collected and by whom,

Instructors continually assess the student's level of competency in their course.

State Fire Marshall's Office and the Office of Emergency and Medical Services keep scores of State exams.

(D) how the evidence/indicator(s) will be analyzed and by whom, and

All instructors go over scores of exams and use them as indicators of successes of students and classes.

(E) how assessment findings will be communicated back to the academic unit's faculty and students and used to improve the degree program.

Based on the scores of the written and practical exams

Please note, it is important that the implementation plan collects useful information and that the collection and analysis methods are manageable given the resources available in your academic unit.

1. Instructions: For each program-level outcome (not course objectives), please provide information for each category listed below. Both direct and indirect evidence/indicators should be utilized in your assessment plan. You are encouraged to utilize existing evidence/indicators when feasible to keep the process manageable. You should also collect evidence/indicators throughout the program and not just at the end.

	A	B	C	D	E
Program Learning Outcome	How/Where is outcome learned?	Evidence/ Indicator(s) of Learning	Collection method(s) for each source of evidence	Analysis method(s) for each source of evidence	Feedback Procedures (Faculty, staff & students)
Student will be able to correctly don proper Personal Protective Equipment (PPE) in less than one minute	Outcome will be taught and demonstrated in classroom and practiced in the field (FIRE 1500)	Through practical exercises	Students will be timed and then inspected that PPE's are donned correctly	By reviewing the outcome with the student after each exercise	Students will be critiqued after each exercises and given feedback on how to improve

(per NFPA 1500)					
Students will be able to correctly don self-contained breathing apparatus (SCBA) in less than one minute (per NFPA 1500)	Outcome will be taught and demonstrated in classroom and practiced in the field (FIRE 1500)	Through practical exercises	Students will be timed and then inspected that PPE's are donned correctly	By reviewing the outcome with the student after each exercise	Students will be critiqued after each exercises and given feedback on how to improve
Student will have the ability to select and safely raise the correct ladder for each exercise using the different fire service ladders.	Outcome will be taught and demonstrated in classroom and practiced in the field (FIRE 1500)	Through practical exercises	Students will be given different fire ground scenario and have to chose proper ladder and placement	By reviewing the outcome with the student after each exercise	Students will be critiqued after each exercises and given feedback on how to improve
Student will demonstrate the ability to perform a search and rescue with obscured vision. Finding the victim within 15 minutes	Outcome will be taught and demonstrated in classroom and practiced in the field (FIRE 1500)	Through practical exercises	Students will be given a search and rescue scenario and chose the proper search pattern to complete this evolution the proper search technique	By reviewing the outcome with the student after each exercise	Students will be critiqued after each exercises and given feedback on how to improve
Students enrolled in FIRE 2515 Advanced Firefighting will take the Wyoming State Firefighter I proctored written exam	Outcome will be taught through the courses taken in the fire science program (FIRE2515)	Through practical exercises	By the results of the exam	By reviewing the results of the exam	Test results and feedback will be reviewed with students. A plan of assistance will be developed for those who did not pass the exam.
Students enrolled in FIRE 2515 Advanced Firefighting will take the Wyoming State Firefighter I proctored written exam	Outcome will be taught and demonstrated in classroom and practiced in the field (FIRE 2515)	Through practical exercises	By the results of the exam	By reviewing the results of the exam	Test results and feedback will be reviewed with students. A plan of assistance will be developed for those who did not pass the exam.
Properly asses a patients vital signs.	Outcome will be taught through lecture and hands on practice in the classroom.	Give accurate B/P, pulse count, respirations count, skin and pupils observation.	Hands on practice in the classroom setting.	Written and practical evaluation.	Q&A sessions and direct feedback during the hands on practice sessions.
Put a patient in full C-spine precautions.	Outcome will be taught through lecture and hands on practice in the classroom. (FIRE 1670)	Demonstrate proper technique for spinal immobilization.	Hands on practice in the classroom setting.	Written and practical evaluation.	Q&A sessions and direct feedback during the hands on practice sessions.
Splint an injured extremity and obtain necessary information to include DCAP-BTLS.	Outcome will be taught through lecture and hands on practice in the classroom. (FIRE	Demonstrate the proper technique for splinting an injured	Hands on practice in the classroom setting.	Written and practical evaluation.	Q&A sessions and direct feedback during the hands on practice sessions.

	1670)	extremity.			
Successfully obtain a SAMPLE history also to include OPQRST.	Outcome will be taught through lecture and hands on practice in the classroom. (FIRE1670)	Demonstrate obtaining a patient history assessment.	Hands on practice in the classroom setting.	Written and practical evaluation.	Q&A sessions and direct feedback during the hands on practice sessions.
Successfully size up a medical scene wearing the proper BSI/PPE.	Outcome will be taught through lecture and hands on practice in the classroom. (FIRE 1670)	Demonstrate the proper procedure for making sure a scene is safe and donning PPE.	Hands on practice in the classroom setting.	Written and practical evaluation.	Q&A sessions and direct feedback during the hands on practice sessions.
Students enrolled in EMT 1500 will take State of Wyoming EMT Written Exam	Outcome will be taught through lecture and hands on practice in the classroom. (EMT 1500)	Through practical exercises	By the results of the exam	By reviewing the results of the exam	Test results and feedback will be reviewed with students. A plan of assistance will be developed for those who did not pass the exam.
Students enrolled in EMT 1500 will take State of Wyoming EMT Practical Exam	Outcome will be taught through lecture and hands on practice in the classroom.(EMT 1500)	Through practical exercises	By the results of the exam	By reviewing the results of the exam	Test results and feedback will be reviewed with students. A plan of assistance will be developed for those who did not pass the exam.

2. *Describe the responsibilities, timeline, and the process for implementing this assessment plan.*
The instructors will be responsible to provide the students with the criteria and educate them to the course material. The students will be assessed at the beginning of the semester for a benchmark and assessed throughout the semester on the standards.

C. Global Design & Use

It is critical that degree program assessment plans be developed and approved by all faculty in the department. In addition, *include student input and external sources* (e.g., national standards, advisory boards, employers, alumni, etc.) in the development of the assessment plan(s).

1. *Describe the process through which your academic unit created this assessment plan.*

Include:

This Assessment plan will be reviewed on an annual basis and changed according to the Standards set by the NFPA, Pro Board Firefighting Accreditation and State of Wyoming EMS Office

The students were incorporated into the assessment plan by participating in the testing of the standards. It was decided by the results of the students that the chosen standards were attainable with the correct instruction and practical exercises

The fire science advisory board and adjunct instructors were consulted on choosing the outcomes of this assessment plan.

The manageability of this plan can be completed through the instructors and the current fire science budget. At this time no additional resources will be requested personnel.