

CENTRAL NEW MEXICO COMMUNITY COLLEGE

ASSESSMENT REPORT

Due to SAAC by September 30

PART 1: CONTACT & PROGRAM IDENTIFICATION

Report Year and Contact Information:			
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Academic Year	Contact Person	Email	Phone Number

Subject of this Assessment Report:		
Program: <u>Fire Science</u>	Gen Ed Area: _____	Discipline Area: _____
<input type="checkbox"/> Certificate <input type="checkbox"/> AA <input type="checkbox"/> AS <input checked="" type="checkbox"/> AAS	Applicable to: <input type="checkbox"/> AA/AS <input type="checkbox"/> AAS	

PART 2: EVIDENCE OF ACHIEVEMENT OF PROGRAM OUTCOMES

Summary of Program Success in Achieving Desired Outcomes:
The Fire Science program is succeeding in meeting the outcomes and exit competencies of this reporting period. With the addition of practical exercises, skill sheets, research projects and critical thinking exercises our students are gaining a better perspective of what the fire service is like

Description and Evaluation of Recent Changes Made in Support of Student Learning:
The use of skill sheets, practical exercises, research projects, field trips and critical thinking exercises have been instrumental in improving our learning outcomes

PART 3: REPORT ON RECENT ASSESSMENT OF STUDENT LEARNING PROCESSES

Learning Outcome(s)/Exit Competencies Assessed:	Classes/Cohorts Assessed:
<i>To add rows: right-click in cell below and select "Insert," "Insert Rows Above"</i> Explain the causes of structural, wildland, vehicle, and hazardous materials fire and understand the effects of fire in these settings so they may predict fire behavior while fighting fires	Introduction to Fire Science (FS 1010) Building Construction (FS 1512) Hazardous Materials (FS 1820) Fire Behavior and Combustion (FS 2422) Wildland Fire Patterns and Prevention (FS 2815) Wildland Urban Interface

	Operation (FS 2830)
To do an industrial fire inspection, set up an industrial fire protection system, and conduct an investigation into the cause of a fire.	Facilities Inspection (FS 2814) Fire Protection Systems (FS 2001)

Measurement Tool(s) Used: <i>To add rows: right-click in cell below and select "Insert," "Insert Rows Above"</i>	Enter X's for type of tool				Initial Achievement Target or Expectation:
	Internal	External	Direct	Indirect	
(FS 1010) Five formative exams and one summative exam, five unit assignments and two skill test. Two field trips. (FS 1512) four formative exams one summative and one class project. (FS 1820) Five exams five practical exercises (final written and practical exam given by a third party). (FS 2422) several formative exams one summative and one major project due at the end of the semester (FS 2815) several formative and one final summative exam several practical exams using skill sheets (FS 2830) several formative and one summative exam 5 unit assignments several hands on exams using wildland tools	X	X	X		At least 70% of the students pass with a least a C or better
(FS 2814) Several formative and one summative exam unit assignments presentations role playing exercises practical fire inspection with students using a prepared checklist (FS 2001) several formative and one summative exam campus walk through were students explain the different fire protection systems throughout the campus	X		X		At least 70% of the students pass with a least a C or better

Assessment Results/Findings:
For this reporting period I used exit competencies 2 & 3. 356 students were evaluated the overall results show that 81% of the students passed with a C or better. I based these results on several factors course exams, assignments, skill test, project, third party evaluations, practical exams and hands on training

Analysis and Interpretation of Assessment Results/Findings:
Reviewed several imbedded questions and found students repeatedly missed certain questions I am looking at re- wording these questions and looking at different ways to cover the subject in class

Action Plan in Support of Student Learning:

The data shows that the Fire Science program is meeting the achievement target of at least 70% of the students passing with a C Or better. My plan is to add more practical and technical exercises that will better measure the students' knowledge

Recommendations, Proposals, and/or Funding Requests:

As stated above I would like to add more practical and technical exercises this takes extra equipment and space to store this equipment I will work on these areas through Perkins request

PART 4: EMBEDDED OUTCOMES**Critical Thinking and Life Skills/Teamwork Development within Programs:**

- a) Please describe how Critical Thinking assessment is embedded within your program assessment.
- b) Please describe how Life Skills/Teamwork assessment is embedded within your program assessment.

a) In the Fire Service critical thinking is a large part of our duties. We have to make life threatening decisions when entering a burning building or other hazardous situation, so most of our classes involve critical thinking. In FS 1010 Introduction to Fire Science, students have to decide what type of fire agent is best for certain types of fires. In FS 1820 Hazardous Materials students have to identify certain chemicals before they enter a hazardous environment they also have to identify and use the appropriate type of protective equipment. In FS 2422 Fire Behavior and Combustion they have to predict how fire behaves in different environments so they can safely enter a burning structure. In FS 2815 Wildland Fire Patterns and Preventions they have to predict winds humidity fuels etc. to determine which way the fire will travel. In FS 2830 Wildland Urban Interface Operations students have to predict fire behavior where it is traveling so firefighters can make an action plan that involves saving private dwellings. In FS 2814 Facilities Inspection critical thinking exercises are ongoing, in this class, students have to conduct inspections and decide if a building has fire code violations that make it unsafe for the occupants of a building. In FS 2001 Student need to identify different fire systems and figure out how they work.

b) Teamwork is a very important part of the fire service all of our classes emphasize the importance of teamwork we do not enter a burning building by ourselves it takes several key players for firefighters to enter into a burning building or hazardous incident this involves teamwork. Our assessments and assignments have questions that involve teamwork we constantly talk about safety and watching out for each other. All of this is teamwork

PART 5: ASSESSMENT CYCLE PLAN (Copy and paste from original plan if unchanged)**Plan Description:**

The fire service career field is expanding due to an emphasis on fire safety and fire prevention, which has created a need for trained, skilled, and knowledgeable firefighters. The Fire Science program leads to an Associate of Applied Science Degree in Fire Science that gives the student the educational background needed for employment in a fire service career. It may also help achieve a promotion after gaining employment.

Student Learning Outcomes/Exit Competencies:	When Measured:	Where Measured:	How Measured:
<p>1. Explain and promote fire protection and prevention within the community</p>	<p>2011-2012 2012-2013</p>	<p>Introductions to Fire Science FS 1010,</p> <p>Building Construction FS 1512,</p> <p>Hazardous Materials FS 1820,</p> <p>Managing Community Fire Protection (FS 2402)</p> <p>Facilities Inspection (FS 2814)</p> <p>Fire Science Capstone Course (FS 2999)</p>	<p>In class exams (imbedded questions) Unit assignments (Rubric), practical exercises (skill sheets)</p> <p>In class exams (imbedded questions), Unit assignments(Rubric), class project (Rubric and checklist)</p> <p>In class exams (imbedded questions), practical exercises(skill sheets), New Mexico State Certification exam (National Standard)</p> <p>In class exams (imbedded questions), discussion questions (Rubric), unit assignments (Rubric)</p> <p>In class exams (imbedded questions), discussion questions (Rubric), unit assignments (Rubric), presentations (skills sheets), role playing exercises (Rubric), Practical walk through fire inspection with students (checklist)</p> <p>Interactive software (25 Modules) (computerized grading), resume (Rubric), portfolio (checklist)</p>
<p>2. Explain the causes of structural, Wildland, vehicle, and hazardous materials fire and understand the effects of fire in these settings so they may predict fire behavior while fighting fires</p>	<p>2012-2013 2013-2014</p>	<p>Introductions to Fire Science FS 1010,</p> <p>Building Construction FS 1512,</p>	<p>In class exams (imbedded questions unit assignments (Rubric) practical exercises (skill sheets)</p> <p>In class exams (imbedded questions)Unit assignments(Rubric) class project (Rubric and checklist)</p>

		<p>Hazardous Materials FS 1820,</p> <p>Fire Behavior and Combustion FS 2422,</p> <p>Wildland Fire Patterns and Prevention FS 2815,</p> <p>Wildland Urban Interface Operations FS 2830</p>	<p>In class exams (imbedded questions) practical exercises(skill sheets) New Mexico State Certification exam (National Standard)</p> <p>In class exams (imbedded questions) unit assignments (Rubric) practical demonstrations</p> <p>In class exams (imbedded questions) unit assignments (Rubric) practical demonstration (skill sheets)</p> <p>Unit exams(imbedded questions) unit assignments (Rubric) practical exercises, hands on use of Wildland tools (checklist & skills sheets)</p>
<p>3. To do an industrial fire inspection, set up an industrial fire protection system, and conduct an investigation into the cause of a fire</p>	<p>2012-2013 2013-2014</p>	<p>Facilities Inspection FS 2814,</p> <p>Fire Protection Systems FS 2001</p>	<p>In class exams(imbedded questions) discussion questions (Rubric) unit assignments (rubric) presentations (skill sheets)role playing (rubric) Practical walk through fire inspection with students</p> <p>In class exams (imbedded questions) unit assignments(Rubric) campus walk through where students explain the different fire protection systems (checklist & rubric)</p>