

# CNM ANNUAL STUDENT LEARNING ASSESSMENT REPORT

*Due to the Student Academic Assessment Committee by October 15*



## PART 1: REPORT INFORMATION

Report Year and Contact Information			
<u>2018-2019</u>	<u>Charles Molinari</u>	<u>cmolinari@cnm.edu</u>	<u>50743</u>
<b>Academic Year</b>	<b>Contact Person</b>	<b>CNM Email</b>	<b>CNM Office Extension</b>

  

Subject of this Report
HWPS--FS_AAS--Fire Science Degree

## PART 2: CONTEXT IN WHICH THE ASSESSMENT TOOK PLACE

<b>Program/Area Highlights and Successes</b> (Wherever applicable, include course completion rates, job placement outcomes, and licensing examination pass rates. See the program information dashboard at <a href="https://livecnm.sharepoint.com/sites/Dashboards/SitePages/Program%20Information%20Dashboard.aspx">https://livecnm.sharepoint.com/sites/Dashboards/SitePages/Program%20Information%20Dashboard.aspx</a> (access restricted to CNM employees) and other reports at <a href="https://www.cnm.edu/depts/opie">https://www.cnm.edu/depts/opie</a> .)
<p>The Fire Science Program in the 2018-2019 fiscal year had an overall competer success rate of 85.9% with a C-Pass Rate of 72.8%.</p> <p>During the 2018-2019 year the Fire Science Program has strengthened relationships with our community partners in an effort to increase enrollment and credit for prior learning awarded. This has been accomplished through on site recruiting events with three local fire departments.</p> <p>In the 2018-2019 catalog the new degree plan that met the DACUM study outcomes were implemented, and have been successful in streamlining the graduation requirements from the previous three concentration model in to one.</p> <p>Due to the Fire Science Program’s Recognition as a Fire and Emergency Services Higher Education (FESHE) Institution CNM Fire Science students who successfully complete FESHE recognized courses are elliglble to receive industry standard certificates from the National Fire Academy.</p>
<b>Changes Implemented During the Past Year in Support of Student Learning</b>
<p>During the 2018-2019 year the Fire Science Program has increased the online course offerings to increase access to courses by working firefighters.</p> <p>The Fire Science Program has began revising course curriculum for courses that did not meet the target goal of a 70% C Pass Rate in the previous year. This revision process is on going to insure student success.</p>

**PART 3: REPORT ON ASSESSMENT OF STUDENT LEARNING**

<b>Assessment Method</b>	<b>Type of Assessment Tool</b>	<b>Population or Course(s) Assessed</b>	<b>Graduate Learning Outcome(s) Assessed</b>	<b>Mastery Level</b> (E.g., "Minimum score of 3 on a rubric scaled 0-4" or "Minimum score of 75%")	<b>Targeted % Achieving Mastery</b>	<b>Outcome</b>
In class and certification exams (embedded questions), Field Day (skills practice, practical scenarios), NWCG examinations (embedded questions).	Direct & Internal	FS 1504 Wildland Firefighting	2. Explain the causes of structural, wildland, vehicle, and hazardous materials fires and understand the effects of fires in these settings so they may predict fire behavior while fighting fires.	C-Pass Rate of 70%	85%	Target met
In class exams (embedded questions), unit assignments (embedded questions), case studies/discussions (rubrics), class project (rubric).	Direct & Internal	FS 1512 Building Construction for Fire Prevention	2. Explain the causes of structural, wildland, vehicle, and hazardous materials fires and understand the effects of fires in these settings so they may predict fire behavior while fighting fires.	C-Pass Rate of 70%	N/A	Target not met
In class exams (embedded questions), Practical exercises (skill sheets), NMFTA IFSAC Examination (embedded questions and skill sheets).	Direct & Internal	FS 1820 Hazardous Materials Awareness and Operations	2. Explain the causes of structural, wildland, vehicle, and hazardous materials fires and understand the effects of fires in these settings so they may predict fire behavior while fighting fires.	C-Pass Rate of 70%	85%	Target met
In class exams (embedded questions), unit assignments (rubrics), discussions (rubrics).	Direct & Internal	FS 2422 Fire Behavior and Combustion	2. Explain the causes of structural, wildland, vehicle, and hazardous materials fires and understand the effects of fires in these settings so they may predict fire behavior while fighting fires.	C-Pass Rate of 70%	78%	Target met

In class exams (embedded questions), unit assignments (rubrics), practical demonstrations (rubrics).	Direct & Internal	FS 2815 Wildland Fire Patterns and Prevention	2. Explain the causes of structural, wildland, vehicle, and hazardous materials fires and understand the effects of fires in these settings so they may predict fire behavior while fighting fires.	C-Pass Rate of 70%	N/A	N/A
Unit exams (embedded questions), unit assignments (rubrics), practical exercises (checklists).	Direct & Internal	FS 2830 Wildland Urban Interface Operations	2. Explain the causes of structural, wildland, vehicle, and hazardous materials fires and understand the effects of fires in these settings so they may predict fire behavior while fighting fires.	C-Pass Rate of 70%	100%	Target met
In class exams (embedded questions), unit assignments (embedded questions), case studies/discussions (rubrics), class project (rubric).	Direct & Internal	FS 1512 Building Construction for Fire Prevention	3. Perform a prefire plan, and identify the components of a fire protection system.	C-Pass Rate of 70%	N/A	Target not met
In class exams (embedded questions), unit assignments (rubrics), case studies (checklists).	Direct & Internal	FS 2001 Fire Protection Systems	3. Perform a prefire plan, and identify the components of a fire protection system.	C-Pass Rate of 70%	76%	Target met
In class exams (embedded questions), discussion questions (rubrics), case studies (checklists).	Direct & Internal	FS 2814 Fire Prevention	3. Perform a prefire plan, and identify the components of a fire protection system.	C-Pass Rate of 70%	64%	Target not met
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**Summary of Assessment Findings**

During the 2017-2018 reporting period Global Learning Outcomes 2 and 3 were measured. Data reported on the Enrollment and Course Success Metrics shows that the Fire Science program has a 72.8% C-pass rate, and an 85.9% completer success rate. The C-pass rate of FS 1512, and FS 2814 were 48% and 64% respectively.

**Interpretation of Assessment Findings**

In review of the assessment findings the majority of the courses have C-pass success rates well over the 70% mark. In evaluation of the FS 1512 and FS 2814 the curriculum and past student performance has been evaluated to determine the cause for the lower pass rates.

**Action Plan in Support of Student Learning** (Describe changes to be made that are based at least in part on the assessment interpretation. If the assessment did not yield useful information, describe changes to be made in the assessment methodology and/or criteria.)

During the evaluation of FS 1512 it was identified course project has attributed to the lower C-pass rate. The project has been evaluated and it has been determined by the instructional staff that the project can be divided into manageable smaller projects that meet the objectives so that such a large portion of the course grade does not hinge on one assignment. Additional revision to determine other methods for evaluating student competency may be necessary that will include curriculum and assignment revision. The FS 2814 curriculum has been evaluated as well, and it has been determined that a revision of the course curriculum to possibly include a new text is required.

Lastly, it was also identified that part-time faculty that have been assigned to teach course in the Fire Science Program had not been aware of the importance of dropping students who were no longer attending courses prior to the census and drop deadlines. This has also contributed to the decline in C-Pass rate.

The Fire Science Program has also begun the process of curricular mapping to professional standards with the assistance of the nursing program to develop a process for the creation of student success plans based on professional standards. As a part of mapping the FS curriculum to professional standards the GLO's will also be updated to match the degree plan implemented in the 2018-2020 catalog.

**Please select all of the following that characterize the types of changes described in the above action plan:**

- |  |   |   |
|--|---|---|
| <input checked="" type="checkbox"/> Assessment criteria revision | <input checked="" type="checkbox"/> Assessment methodology revision | <input checked="" type="checkbox"/> Assignment revision |
| <input type="checkbox"/> Budgetary reallocation                  | <input type="checkbox"/> Change in teaching approach                | <input type="checkbox"/> Course content revision        |
| <input checked="" type="checkbox"/> Curricular Revision          | <input checked="" type="checkbox"/> Faculty training/development    | <input checked="" type="checkbox"/> Process revision    |

Recommendations, Proposals, and/or Funding Requests	Budget Needed
It is recommended that the FS 1512, and 2814 courses be evaluated by the faculty to determine the course modifications needed to ensure student success. It is requested that Faculty be allotted project compensation for the redesign of these courses.	\$6,000

**PART 4: REMAINING YEARS IN CURRENT ASSESSMENT CYCLE PLAN** (including any revisions) – **OR -- UPCOMING ASSESSMENT CYCLE PLAN** (if this was the final year)

<b>Years of Full Cycle</b>	<b>Next Year's Assessment Focus</b> (Describe how the next planned assessment is expected to provide information that can be used toward improving student learning.)
2016-2020	The fire service career field continues to need a trained, skilled, and knowledgeable workforce. The Fire Science program continues to support this need through graduating qualified candidates. The students are prepared for these jobs upon completion a vigorous curriculum that meets the necessary student learning outcomes.

Graduate Learning Outcomes to Be Assessed	Years in which Assessment Is Planned	Population/Courses to Be Assessed	Planned Assessment Approach
<p>3. Perform a prefire plan, and identify the components of a fire protection system.</p>	<p>2019 - 2020</p>	<p>FS 1512 Building Construction for Fire Prevention            FS 2001 Fire Protection Systems            FS 2814 Fire Prevention</p>	<p>In class exams (embedded questions), unit assignments (embedded questions), case studies/discussions (rubrics), class project (rubric).            In class exams (embedded questions), unit assignments (rubrics), case studies (checklists).            In class exams (embedded questions), discussion questions (rubrics), case studies (checklists).</p>
<p>4. Understand and coordinate fire service organizations and manage different types of emergencies.</p>	<p>2019 – 2020            2020 – 2021</p>	<p>FS 1010 Principles of Fire and Emergency Services            FS 1504 Wildland Firefighting            FS 2402 Principles of Fire and Emergency Services Administration            FS 2419 Strategy and Tactics            FS 2820 Wildland Leadership            FS 2830 Wildland Urban Interface Operations</p>	<p>In class exams (embedded questions), chapter assignments (embedded questions) discussion questions/case studies (rubrics).            In class and certification exams (embedded questions), Field Day (skills practice, practical scenarios), NWCG examinations (embedded questions).            In class exams (embedded questions), discussion questions (rubrics), unit assignments (rubrics).            In class exams (embedded questions), chapter assignments (embedded questions) discussion questions/case studies (rubrics).            In class exams (embedded questions), unit assignments (rubrics), practical demonstrations (skill sheets).            Unit exams (embedded questions), unit assignments (rubrics), practical exercises (checklists).</p>

5. Apply different tactics and strategies needed to fight fires in a variety of situations.	2020 – 2021	FS 2008 Fire Protection Hydraulics and Water Supply FS 2419 Strategy and Tactics FS 2820 Wildland Leadership	In class exams (embedded questions), chapter assignments (embedded questions) discussion questions/case studies (rubrics). In class exams (embedded questions), chapter assignments (embedded questions) discussion questions/case studies (rubrics).
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