

Student Learning Outcomes Assessment Summary

Fire Science, AAS *UAF Community and Technical College* **AY2013-2014**

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1. Assessment information collected

- a. Graduates will secure employment in emergency services or a closely related field or go on for additional education, training, or experience within one year.
- b. Eighty percent of students who take the State of Alaska/International Fire Service Accreditation congress certification in one or more of the following will pass:

Firefighter I
Firefighter II
Rapid Intervention Technician
Or
National Wildfire Coordination Group standardized testing
- c. Students will demonstrate knowledge of the Incident Command System (ICS) through standardized testing in relevant courses.

2. Conclusions drawn from the information summarized above

a. 2014

AAS Emergency Services: Fire Science had 24 graduates in 2014. Of those we were able to track 20 of the 24. Data used reflects the 20 students we were able to account for.

Of our AAS graduates 2014, 100% were successful in obtaining employment or continuing their education through a paramedic program or the Bachelors of Emergency Management and Homeland Security within one year.

Graduate Survey Results:

- 7 UAF Homeland Security Emergency Management BEM
- 1 UAF Biology
- 1 UAF Natural Resource Management
- 3 Employed and Homeland Security Emergency Management BEM
- 9 Employed in emergency services
- 3 Unknown

2013

AAS Emergency Services: Fire Science had 11 graduates in 2013. Of those we were able to track 10 of the 11. The data used reflects the 10 students we were able to account for.

Of our AAS graduates 2014, 100% were successful in obtaining employment or continuing their education through a paramedic program or the Bachelors of Emergency Management and Homeland Security with one year.

Graduate Survey Results:

- 3 UAF Homeland Security Emergency Management BEM
- 4 Employed and Homeland Security Emergency Management BEM
- 3 Employed in emergency services
- 1 Unknown

- b. The majority of students in our program successfully passed State of Alaska/International Fire Service Accreditation Congress examinations.

State of Alaska/IFSAC Firefighter I

2014	36 out of 37 passed	97%
2013	40 out of 43 passed	93%
2012	41 out of 43 passed	95%
2011	39 out of 39 passed	100%
2010	21 out of 21 passed	100%
2009	18 out of 18 passed	100%
2008	28 out of 28 passed	100%

State of Alaska/IFSAC Firefighter II

2014	23 out of 23 passed	100%
2013	15 out of 15 passed	100%
2012	12 out of 12 passed	100%
2011	12 out of 12 passed	100%
2010	22 out of 22 passed	100%
2009	14 out of 14 passed	100%
2008	22 out of 23 passed	95%

State of Alaska Rapid Intervention Technician

2014	7 out of 8 passed	87%
2013	9 out of 11 passed	81%
2012	6 out of 7 passed	85%
2011	9 out of 9 passed	100%
2010	10 out of 10 passed	100%
2009	9 out of 9 passed	100%
2008	10 out of 10 passed	100%

It should be noted that the program did a comprehensive review of test results by curriculum subject areas as overall examination results do not show potential subject area deficiencies. We will be modifying our Student Learning Outcomes for future assessments to include assessment of subject area test results.

Our review concluded that students passed most subject areas. There did not appear to be a pattern from course to course. Our program has informed course instructors of subject areas that fell below 70% within the State of Alaska examinations so that they can emphasize these topics.

Wildland Fire/NWCG Certification

Program Name, Degree

Year	Semester	Class / Certification	Enrolled	Passed w/ Cert	Percentage
2013	Spring	FIRE F151 / S-130, S-190, L-180	26	26	100
		FIRE F193 / S-290	16	16	100
		FIRE F193 / S-215	13	13	100
		FIRE F193 / S-200, S-230	20	20	100
		FIRE F193 / D-110	8	8	100
		FIRE F193 / S-211, S-212	5	5	100
		FIRE F252 / FI-110, P-101	4	4	100
2013	Fall	FIRE F151 / S-130, S-190, L-180	9	9	100
		FIRE F153 / S-131, S-133, L-280	26	25	96
		FIRE F155 / S-290	5	5	100
		FIRE F157 / S-270, S-271	3	3	100
		FIRE F159 / S-215	4	4	100
		FIRE F165 / I-200, I-300	5	5	100
		FIRE F262 / S-336	1	1	100
2014	Spring	FIRE F151 / S-130, S-190, L-180	25	25	100
		FIRE F152 / S-211, S212	54	52	96
		FIRE F153 / S-131, S-133, L-280	38	38	100
		FIRE F154 / S-134	6	6	100
		FIRE F155 / S-290	6	6	100
		FIRE F157 / S-270, S-271	24	24	100
		FIRE F159 / S-215	13	13	100
		FIRE F176 / S-234	6	6	100
		FIRE F193 / S-270, I-200	13	13	100
		FIRE F251 / S-200, S-230	2	2	100
		FIRE F252 / FI-110, P-101	6	6	100
		FIRE F255 / S-390	7	7	100
2014	Fall	FIRE F151 / S-130, S-190, L-180	6	6	100
		FIRE F153 / S-131, S-133, L-280	6	6	100
		FIRE F159 / S-215	4	4	100
		FIRE F161 / FEMA CERT	4	4	100
		FIRE F163 / D-110	6	6	100
		FIRE F170 / S-203	7	7	100
		FIRE F254 / S-260			

Wildland Fire NWCG certification examination results were within the identified threshold. The program was not able to review examination results by subject for this review period.

- c. In 2010 we found that students in the Fire F101 class were successful in passing the FEMA online I-100 Basic Incident Command course. When a follow up examination was done two weeks after the online course, 70% of the students failed to pass the written examination. The development of a student study guide has improved testing results where the majority of students are now passing. Fall 2014 FIRE F220 Firefighter Safety, Health, and Survival was created as a capstone course. Our department will be further assessing ICS in FIRE F220 as well as developing more SLO's based on key concepts from the overall program.

3. Curricular changes resulting from conclusions drawn above

- a. No changes required at this time.
- b. Examination score thresholds were met, but in further review of the SLOA process, we recognized that an in depth review of subject area results within the tests were necessary in order to identify potential deficiencies. We assessed subject area results and developed a list of subject areas for instructors to monitor with weekly quiz scores and to add emphasis to during instruction. We will be updating our SLO for fire science to include this process for both municipal and wildland fire science concentrations.

- c. We recognized that Incident Command System information was not being retained. Student feedback was collected from past Incident Command System instruction and testing. A study guide was developed for students based on the feedback. Data collected during this review period has shown the study guide results in a higher retention of Incident Command System information. Fall 2104 FIRE F220 Firefighter Safety, Health, and Survival was created as a capstone course. ICS data will be collected in this course. The goal will be to have assessment data represent the entry level FIRE F101 and the capstone F220.

4. Identify the faculty members involved in reaching the conclusions drawn above and agreeing upon the curricular changes resulting

John George, Associate Professor
Tylan Martin, Assistant Professor
Loren C. "Bud" Rotroff, Adjunct Professor