

**FORMAT I**

Submit original with signatures + 1 copy + electronic copy to Faculty Senate (Box 7500).  
See <http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures/> for a complete description of the rules governing curriculum & course changes.

**TRIAL COURSE OR NEW COURSE PROPOSAL**

**SUBMITTED BY:**

<b>Department</b>	Emergency Services: Fire Science	<b>College/School</b>	CRCD/CTC
<b>Prepared by</b>	Tylan Martin	<b>Phone</b>	907-347-8386
<b>Email Contact</b>	Tjmartin5@alaska.edu	<b>Faculty Contact</b>	John George

**1. ACTION DESIRED (CHECK ONE):** Trial Course  New Course

**2. COURSE IDENTIFICATION:** Dept  Course #  No. of Credits

Justify upper/lower division status & number of credits:

**3. PROPOSED COURSE TITLE:**

**4. To be CROSS LISTED?** YES/NO  If yes, Dept:  Course #

(Requires approval of both departments and deans involved. Add lines at end of form for such signatures.)

**5. To be STACKED?** YES/NO  If yes, Dept:  Course #

**6. FREQUENCY OF OFFERING:**   
Fall, Spring, Summer (Every, or Even-numbered Years, or Odd-numbered Years) — or As Demand Warrants

**7. SEMESTER & YEAR OF FIRST OFFERING (AY2011-12 if approved by 3/1/2012; otherwise AY2012-13)**

**8. COURSE FORMAT:**

NOTE: Course hours may not be compressed into fewer than three days per credit. Any course compressed into fewer than six weeks must be approved by the college or school's curriculum council. Furthermore, any core course compressed to less than six weeks must be approved by the core review committee.

**COURSE FORMAT:** (check all that apply)  1  2  3  4  5  6 weeks to full semester

OTHER FORMAT (specify) \_\_\_\_\_

Mode of delivery (specify lecture, field trips, labs, etc)

**9. CONTACT HOURS PER WEEK:**  LECTURE hours/weeks  LAB hours /week  PRACTICUM hours /week

Note: # of credits are based on contact hours. 800 minutes of lecture=1 credit. 2400 minutes of lab in a science course=1 credit. 1600 minutes in non-science lab=1 credit. 2400-4800 minutes of practicum=1 credit. 2400-8000 minutes of internship=1 credit. This must match with the syllabus. See <http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures/guidelines-for-computing/> for more information on number of credits.

OTHER HOURS (specify type)

**10. COMPLETE CATALOG DESCRIPTION** including dept., number, title, credits, credit distribution, cross-listings and/or stacking (50 words or less if possible):

**FIRE F255 Wildland Fire Behavior II**

**2.0 credits (2+0)**

This course will give students an understanding of the determinants of fire behavior through studying input datum for fire (weather, slope, fuels and fuel moisture). Operation of fire behavior prediction tools, assessing and selecting proper inputs, interpreting the results in terms of rate of spread, fire line intensity, potential for extreme fire behavior; and documentation processes. Course is based on a National Wildfire Coordinating Group (NWCG) course.

NWGC Course included: S-390 Introduction to Wildland Fire Behavior Calculations

Offered Spring Even-numbered Years

**11. COURSE CLASSIFICATIONS:** Undergraduate courses only. Consult with CLA Curriculum Council to apply S or H classification appropriately; otherwise leave fields blank.

H = Humanities  S = Social Sciences

Will this course be used to fulfill a requirement for the baccalaureate core? If YES, attach form.

YES:	<input type="checkbox"/>	NO:	<input checked="" type="checkbox"/>
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IF YES, check which core requirements it could be used to fulfill:

O = Oral Intensive, Format 6  W = Writing Intensive, Format 7  Natural Science, Format 8

**12. COURSE REPEATABILITY:**

Is this course repeatable for credit? YES  NO

Justification: Indicate why the course can be repeated (for example, the course follows a different theme each time).

How many times may the course be repeated for credit?  TIMES

If the course can be repeated for credit, what is the maximum number of credit hours that may be earned for this course?  CREDITS

If the course can be repeated with variable credit, what is the maximum number of credit hours that may be earned for this course?  CREDITS

**13. GRADING SYSTEM:** Specify only one. Note: Later changing the grading system for a course constitutes a Major Course Change.

LETTER:  PASS/FAIL:

**RESTRICTIONS ON ENROLLMENT (if any)**

**14. PREREQUISITES** FIRE 155 or Instructor's permission

These will be required before the student is allowed to enroll in the course.

**15. SPECIAL RESTRICTIONS, CONDITIONS**

**16. PROPOSED COURSE FEES** \$ 0

Has a memo been submitted through your dean to the Provost for fee approval?

Yes/No

**17. PREVIOUS HISTORY**

Has the course been offered as special topics or trial course previously?

Yes/No

If yes, give semester, year, course #, etc.:

**18. ESTIMATED IMPACT**

WHAT IMPACT, IF ANY, WILL THIS HAVE ON BUDGET, FACILITIES/SPACE, FACULTY, ETC.

No anticipated additional impact

**19. LIBRARY COLLECTIONS**

Have you contacted the library collection development officer (kljensen@alaska.edu, 474-6695) with regard to the adequacy of library/media collections, equipment, and services available for the proposed course? If so, give date of contact and resolution. If not, explain why not.

No  Yes  No library resources required. Library was contacted on 3/6/2012

**20. IMPACTS ON PROGRAMS/DEPTS**

What programs/departments will be affected by this proposed action?  
Include information on the Programs/Departments contacted (e.g., email, memo)

School of Management - Bachelors of Emergency Management

**21. POSITIVE AND NEGATIVE IMPACTS**

Please specify positive and negative impacts on other courses, programs and departments resulting from the proposed action.

Positive impact: Provides additional credit opportunity for students to meet the BEM requirement of 30 credits from an AAS Fire Science degree.  
  
Negative impact: None anticipated

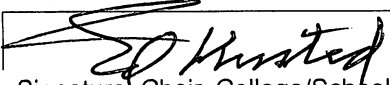
**JUSTIFICATION FOR ACTION REQUESTED**

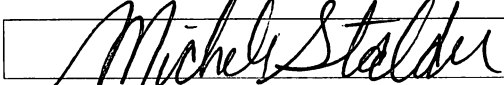
The purpose of the department and campus-wide curriculum committees is to scrutinize course change and new course applications to make sure that the quality of UAF education is not lowered as a result of the proposed change. Please address this in your response. This section needs to be self-explanatory. Use as much space as needed to fully justify the proposed course.

This course has been recommended by our wildland fire task force to meet the current industry needs for wildland fire. The course is composed of preexisting NWCG courses and realigns the degree and curriculum to match industry presentation methods.

**APPROVALS: Add additional signature lines as needed.**

<i>&lt;SEE SIGNATURE ON NEXT PAGE&gt;</i>	Date	
Signature, Chair, Program/Department of: _____		

	Date	11-19-12
Signature, Chair, College/School Curriculum Council for: <i>CTC</i>		

	Date	11/19/12
Signature, Dean, College/School of: <i>CTC</i>		

	Date	
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Signature of Provost (if applicable)

Offerings above the level of approved programs must be approved in advance by the Provost.

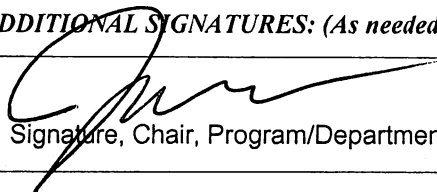
**ALL SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISSION TO THE GOVERNANCE OFFICE**

	Date	
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Signature, Chair

Faculty Senate Review Committee: \_\_\_Curriculum Review \_\_\_GAAC  
\_\_\_Core Review \_\_\_SADAC

**ADDITIONAL SIGNATURES: (As needed for cross-listing and/or stacking)**

	Date	10/4/12
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Signature, Chair, Program/Department of: Emergency Services and Public Safety

	Date	
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Signature, Chair, College/School Curriculum Council for: \_\_\_\_\_

	Date	12/3/12
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Signature, Dean, College/School of: CRCD

**University of Alaska Fairbanks  
Community and Technical College  
Emergency Services Program  
FIRE 255 – Wildland Fire Behavior II  
2.0 (2 + 0) Credits  
Course Syllabus**

**Course Description:**

This course will give students an understanding of the determinants of fire behavior through studying input datum for fire (weather, slope, fuels and fuel moisture). Operation of fire behavior prediction tools, assessing and selecting proper inputs, interpreting the results in terms of rate of spread, fire line intensity, potential for extreme fire behavior; and documentation processes. Course is based on a National Wildfire Coordinating Group (NWCG) course.

NWGC Course included:

S-390 Introduction to Wildland Fire Behavior Calculations

Offered Spring Even-numbered Years

**Course Goals:**

Successful course completion combined with national age, physical fitness and appropriate experience requirements as administered by a federal or state wildland fire agency will qualify the student for interagency fire qualification certifications.

**Prerequisites:**

FIRE 155

**Student Learning Outcomes:**

The successful student will be able to:

List the assumptions, limitations, and appropriate uses of fire behavior prediction models.

Describe how environmental factors and processes affect fire behavior predictions and safety.

Define and interpret fire behavior prediction model inputs.

Calculate fire behavior outputs using available fire behavior processors.

Interpret, communicate, apply, and document wildland fire behavior and weather information.

**Methods:**

The course is primarily lecture with visuals. Group discussion is strongly encouraged. Homework assignments, periodic quizzes and unit finals will document student progress.

**Instructor Qualifications:**

Lead instructor must have completed S-490, Advanced Fire Behavior Calculations and be a NWCG qualified division group supervisor, incident commander type 3, or prescribed fire burn boss type 1; recommend that the lead instructor be a NWCG qualified fire behavior analyst.

Unit instructors must be NWCG qualified as strike team leader, task force leader, or prescribed fire burn boss type 2.

A meteorologist is highly recommended to instruct the weather sections of this course.

**Location and Meeting Times:**

Room X, University Park Center, 1000 University Avenue  
Date 1 through Date 2, Day of the week(s), Start Time – End Time

**Grading Policy:**

<b>Average Score</b>	<b>Letter Grade</b>
90 and above	A
80 to 89.99	B
70 to 79.99	C
60 to 69.99	D
0 to 59.99	F

Attendance and Participation:	20%
Quizzes:	40%
Course Examinations:	40%

**Policies:**

Attendance is required at all sessions with individual participation expected. Homework is due on specified dates. Late work will be accepted with penalty. Individual needs may be discussed. Academic integrity is expected and plagiarism is unacceptable.

**UAF Honor Code**

The public holds emergency services personnel accountable to the highest standards of ethics. The credibility of our degree program requires that we meet those expectations in every way possible. As a UAF student, you are subject to the Honor Code. The University assumes that the integrity of each student and the student body as a whole will be upheld. Honesty is a primary responsibility of you and every other UAF student. It is your responsibility to help maintain the integrity of the student community including the reporting any observed violations to the Instructor or Program Coordinator. UAF's Honor Code is as follows:

1. Students will not collaborate on any quizzes, in-class exams, or take-home assignments that will contribute to their grade in a course, unless permission is granted by the course instructor. Only those materials permitted by the instructor may be used to assist in quizzes and exams. The use of study groups is encouraged.

2. Students will not represent the work of others as their own. A student will attribute the source of information not original with himself or herself (direct quotes or paraphrases) in compositions, theses and other reports. (Specifically prohibited for this course are reports composed by other students from previous course offerings and any Internet sources.)

3. No work submitted for one course may be submitted for credit in another course without the explicit approval of both instructors. Students may use the same report topic and references from other courses if the Instructor is provided with a graded copy of any similar submissions to show that an identical report has not been submitted for credit twice.

Violations of the Honor Code will result in a failing grade for the assignment and for the course in which the violation occurred. Violations of the Honor Code may result in suspension or expulsion.

### **Disability Services:**

The Office of Disability Services implements the Americans with Disability Act (ADA), and insures that UAF students have equal access to the campus and course materials. Your instructor will work with the Office of Disabilities Services (208 WHIT, 474-5655) to provide reasonable accommodation to student with disabilities.

### **Student Texts and Supplies:**

NFES 002931	S-390 Student Workbook
NFES 002933	S-390 Student CD-ROM
NFES 002165	Fireline Handbook App B: Fire Behavior, PMS 410-2
NFES 002220	Fire Behavior Nomograms, PMS 436-3
NFES 002231	Ruler, 10 Scale, clear plastic

Suggested Reading:

Students should come to class prepared for discussion and note taking.

**Course Calendar** with Readings and Work Assignments:  
(Subject to variation as the class progresses.)

**Session 1**

0800-0900 Unit 0 - Introduction  
0900-1000 Unit 1 - Topography  
1000-1100 Unit 2A - Atmospheric Stability  
1100-1200 Unit 2B - Winds  
1200-1300 Lunch  
1300-1430 Unit 2B – Winds (continued)  
1430-1600 Unit 2C - Weather Information and Forecasts

**Session 2**

0800-1000 Unit 3 - USFBPS Fuel Models  
1000-1200 Unit 4 - Fuel Moisture  
1200-1300 Lunch  
1300-1600 Unit 5A - Non-Electronic Wildland Fire Behavior Processors

**Session 3**

0800-1000 Unit 5A (Continued)  
1000-1200 Unit 5B - Spotting Model  
1200-1300 Lunch  
1300-1400 Unit 5C - Safety Zone Calculations  
1400-1630 Unit 6A - Plotting Fire Size and Shape

**Session 4**

0800-1030 Unit 6B - Point Source  
1030-1230 Unit 7 - Extreme Fire Behavior  
1230-1330 Lunch  
1330-1400 Unit 8 - Documentation, Briefings, and Monitoring for Fireline Safety  
1400-1600 Unit 9 - Final Group Exercise  
1600-1700 Final Exam

*Schedule to provide for 32 contact hours*

**Instructors:**

Instructor #1 Name

Contact Information:

e-mail  
Office  
Home



Cell

Instructor #2 Name

Contact Information:

email:

Office

Home

Cell