

107-1000

Submit original with signatures + 1 copy + electronic copy to UAF Governance.

See <http://www.uaf.edu/uafgov/faculty/cd> for a complete description of the rules governing curriculum & course changes.

TRIAL COURSE OR NEW COURSE PROPOSAL

SUBMITTED BY:

Department	Emergency Management Program	College/School	School of Management
Prepared by	C. Carlson	Phone	474-6537
Email Contact	cdcarlson@alaska.edu	Faculty Contact	C. Carlson

1. ACTION DESIRED (CHECK ONE):

Trial Course	<input type="checkbox"/>	New Course	<input checked="" type="checkbox"/>
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2. COURSE IDENTIFICATION:

Dept	HSEM	Course #	434	No. of Credits	3
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Justify upper/lower division status & number of credits:	The course is designed to build upon lower division courses in order to provide the operations management portion of the emergency management curriculum. Contact hours and course structure are consistent with other nationally recognized programs.
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3. PROPOSED COURSE TITLE: All Hazards Risk Analysis

4. CROSS LISTED? YES/NO No If yes, Dept: Course #
 (Requires approval of both departments and deans involved. Add lines at end of form for such signatures.)

5. STACKED? YES/NO No If yes, Dept. Course #

6. FREQUENCY OF OFFERING: Fall or Spring
 (Every or Alternate) Fall, Spring, Summer — or As Demand Warrants

7. SEMESTER & YEAR OF FIRST OFFERING (if approved) Fall 2011

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 one) 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:

3	LECTURE hours/weeks		LAB hours /week		PRACTICUM hours /week
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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/cd/credits.html> for more information on number of credits.

OTHER HOURS (specify type)

10. COMPLETE CATALOG DESCRIPTION including dept., number, title and credits (50 words or less, if possible):

HSEM 434 All Hazards Risk Analysis: This course covers risk analysis and assessment from an All-Hazards emergency management and homeland security perspective. Students will explore vulnerability and risk assessment methodologies for natural, man-made as well as technological disasters/events and develop an understanding of the processes used in identifying and quantifying vulnerabilities in a system (e.g., a physical facility such as a chemical plant, or an infrastructure component such as a power plant).

11. COURSE CLASSIFICATIONS: (undergraduate courses only. Use approved criteria found on Page 10 & 17 of the manual. If justification is needed, attach on separate sheet.)

H = Humanities N = Natural Science S = Social Sciences

Will this course be used to fulfill a requirement for the baccalaureate core? YES NO

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

13. GRADING SYSTEM:

LETTER:

PASS/FAIL:

REVISED 1/21/2011: take out Math courses; ADD

RESTRICTIONS ON ENROLLMENT (if any) "or permission of instructor."

14. PREREQUISITES HSEM 301; MATH 107X or 161X or STAT 200X and upper division standing

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

RECOMMENDED

Classes, etc. that student is strongly encouraged to complete prior to this course.

15. SPECIAL RESTRICTIONS, CONDITIONS

16. PROPOSED COURSE FEES

\$

Has a memo been submitted through your dean to the Provost & VCAS 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.

None; Faculty member is already in place.

19. LIBRARY COLLECTIONS

Have you contacted the library collection development officer (ffklj@uaf.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

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)

None

21. POSITIVE AND NEGATIVE IMPACTS

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

Positive impact: course/curriculum changes will result in recognition by the Emergency Management Institute's Higher Ed Project as an "approved" program for endorsement and promotion by FEMA and


the Department of Homeland Security.


JUSTIFICATION FOR ACTION REQUESTED

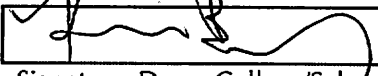
The purpose of the department and campus-wide curriculum committees is to scrutinize course change and new course applications to make sure that the quality of UAF education is not lowered as a result of the proposed change. Please address this in your response. This section needs to be self-explanatory.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

The addition of this course to the current Bachelor of Emergency Management curriculum supports the academic needs of the students within the program and changes taking place within the field of Emergency Management and Homeland Security.

APPROVALS:

 Date 25 Oct 2010
Signature, Chair, Program/Department of: Director, Emergency Management Program

 Date 26 OCT 2010
Signature, Chair, College/School Curriculum Council for: Chair, School of Management

 Date _____
Signature, Dean, College/School of: School of Management

Date _____

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

Signature, Chair, UAF Faculty Senate Curriculum Review Committee Date _____

ADDITIONAL SIGNATURES: (if required)

Signature, Chair, Program/Department of: _____ Date _____

Signature, Chair, College/School Curriculum Council for: _____ Date _____

Signature, Dean, College/School of: _____ Date _____

Course Syllabus: HSEM 434

All Hazards Risk Analysis

--3 credits

Prerequisites: HSEM 301 or permission of instructor. (Rev. 1/21/2011)

Location: Bunnell xxx

Time Mon 0:00 – 0:00

Instructor: Cameron Carlson

Director, Emergency Management & Homeland Security Program

School of Management, University of Alaska Fairbanks

Office: 219 F Bunnell
Office Hours: TBD
Telephone: 474-6537
e-mail: cdcarlson@alaska.edu

Course Description

This course covers risk analysis and assessment from an All-Hazards emergency management and homeland security perspective. Students will explore vulnerability and risk assessment methodologies for natural, man-made as well as technological disasters/events and develop an understanding of the processes used in identifying and quantifying vulnerabilities in a system (e.g., a physical facility such as a chemical plant, or an infrastructure component such as a power plant).

Course Objectives

- Understand the contemporary security environment of today.
- Understand basic security concepts and terminology.
- Develop an understanding of the different types of threats to critical infrastructure including physical sites and cyber systems
- Develop and understanding of the application of risk analysis tools.
- Understand how to evaluate risks and develop mitigation strategies and countermeasures.
- Understand basic disaster recovery, business resumption and continuity procedures.

Instructional Methods

The class will be primarily conducted through small group discussion and lecture. The first half of each class will routinely be used for lecture and small group discussion. The second half of class will be utilized for special topic discussions, guest speaker presentations and project work and brief back presentations.

Recommended preparation: 2 hours weekly

Evaluation

Quizzes will account for 10% of the overall grade. (True-False, Fill in the blank, Multiple choice, Short answer)

A Mid Term will account for another 20%. (Essay)

Weekly Reviews/Discussion Management 20%. (Students are required to turn in a review of the assigned weekly readings at the beginning of each class. The review is to be two pages (typed), font 11—double spaced. Additionally, students will be prepared to lead discussions/contribute to the lecture.

Blackboard will be used to develop special topic presentations (10%) for use during the course. Each student Team (see below) will be responsible for developing their own special topic, soliciting input from other students via Blackboard (interest in the topic, relevance to the course etc.), and for the development of a 15 minute presentation via power point or other suitable delivery tool.

A Group Project or Capstone will constitute the remaining 40% of the class. Teams of two individuals will be formed early in the semester. Each team will develop a project involving their selection of a specific sector (government, private industry, health, security, technology etc.) where they will be required to (1) identify a specific risk within the sector, (2) conduct a detailed threat/risk analysis of the risk/threat (3) develop a subsequent set of countermeasures, mitigation and or prevention procedures; and finally (4) a disaster recovery/continuity of operations or a resumptions plan to recover from an event.

Quizzes = 10%

Mid Term = 20%

Weekly Reviews/Discussion Management (Participation) = 20%

Special Topics Presentation = 10%

Group Project and Presentation = 40%

A= 90-100%

B= 80-89%

C= 70-79%

D= 60-69%

F= 59 % or less

Textbooks - Required

Risk Analysis and Security Countermeasure Selection (Hardcover) by Thomas L. Norman., 2009.

ASME , (2009) All-Hazards Risk and Resilience
ASME Innovative Technologies Institute, LLC

Pine, John. (2008) Natural Hazards Analysis: Reducing the Impact of Disasters
Auerbach Publications

Additional Reading

Selected articles as needed will be posted either on Blackboard or provided in class.

Course Policies

Students are expected to attend and participate in both the class and discussions generated. Students will be penalized for the late submission of class assignments and for non—attendance (outside of emergency or mutually agreed upon circumstances).

Plagiarism on assignments and cheating on exams will not be tolerated. Students caught plagiarizing or cheating will be disciplined according to the appropriate University of Alaska guidelines.

Support Services

Students are encouraged to utilize the UAF Writing Center in 801 Gruening, ph 474-5314 as needed to assist in the development and refinement of their written products. Please contact me as required should you need to contact other subject matter support services relevant to the development of your leadership or classroom projects/topics.

Students with Disabilities

Students with learning or other disabilities who may need classroom accommodations are encouraged to make an appointment with the Office of Disability Services (Phone # 474-7043). Please inform me of your needs and if I need to meet with the Office of Disability Services to provide the appropriate accommodations and support to assist you in meeting the goals of the course.

Class Schedule

TBD 2011					
Week	Date	Topics	Readings		
Week 1		Introduction and overview of class; Pre and Post 9/11 Security Environment			

Week 2		Risk Analysis Basics	Norman Chp 1 & 2		
Week 3		Emergency Decision Planning			
		Defining and Deterring Cyber War	Pine chp BB		
Week 4		Introduction to Critical Infrastructure Assurance Selected Critical Infrastructure Readings (BB)	Norman Chp 3, 4, 5		
Week 5		Security Vulnerability Assessment Countermeasure Goals and Strategies Types of Countermeasures Security Policy Intro Intro Group Project	Norman Chp 12, 13, 14, 15, 16		
Week 6		Threat Analysis Assessing Vulnerability Special Topic Presentations {Project Portfolio} (start)	Norman Chp 6 7,8 Pine chp		
Week 7		Spring Break			
Week 8		Mid Term Review Probability, Risk Analysis, Prioritizing Risk Special Topic Presentations {Project Portfolio} (complete)	Norman 9, 10, 11		
Week 9		Mid Term			
Week 10		Security Effectiveness Metrics Cost Effective Metrics	Norman Chp 18,19		
Week 11		Planning for Natural Hazards Natural Hazards Risk	Pine Chp		
Week 12		Consequences of Natural Hazards Selected Business Continuity & Resumption Topics	BB		
Week 13		Policies/Procedures/Reports	Norman Chp 20		

Week 14		Project Portfolio Review Selected Readings in Planning		BB	
Week 15		Group Project Presentations #1			
Week 16		Group Project Presentations #2			