

33-UNC Revised

NOV 18 2015

FORMAT 1

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**  
(Attach copy of syllabus)

**SUBMITTED BY:**

Department	<b>Homeland Security and Emergency Management</b>	College/School	<b>School of Management</b>
Prepared by	<b>Amber Lammers</b>	Phone	<b>Ext. 4622 or 6736</b>
Email Contact	<b><u>allammers@alaska.edu</u></b>	Faculty Contact	<b>Cameron Carlson, <u>cdcarlson@alaska.edu</u>; ext 6537</b>

1. ACTION DESIRED (CHECK ONE):

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

Dept	<b>HSEM</b>	Course #	<b>F417</b>	No. of Credits	<b>3</b>
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Justify upper/lower division status & number of credits:	<b>This course will be used for a concentration within the BEM degree. It requires a 300-level course as a prerequisite and 400-level status is appropriate as there are advanced concepts expounded upon from lower level courses.</b>
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3. PROPOSED COURSE TITLE: **Cyber Security Resiliency**

4. To be CROSS LISTED? YES/NO

No	If yes, Dept:	Course #
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NOTE: Cross-listing requires approval of both departments and deans involved. Add lines at end of form for additional required signatures.

5. To be STACKED? \* YES/NO

No	If yes, Dept.	Course #
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How will the two course levels differ from each other? How will each be taught at the appropriate level?:

\* Use only one Format 1 form for the stacked course (not one for each level of the course!) and attach syllabi. Stacked course applications are reviewed by the (Undergraduate) Curricular Review Committee and by the Graduate Academic and Advising Committee. Creating two different syllabi (undergraduate and graduate versions) will help emphasize the different qualities of what are supposed to be two different courses. The committees will determine: 1) whether the two versions are sufficiently different (i.e. is there undergraduate and graduate level content being offered); 2) are undergraduates being overtaxed?; 3) are graduate students being undertaxed? In this context, the committees are looking out for the interests of the students taking the course. Typically, if either committee has qualms, they both do. More info online - see URL at top of this page.

6. FREQUENCY OF OFFERING: **As Demand Warrants**

Fall, Spring, Summer (Every, or Even-numbered Years, or Odd-numbered Years) - or As Demand Warrants

7. SEMESTER & YEAR OF FIRST OFFERING (Effective AY2015-16 if approved by 3/31/2015; otherwise AY2016-17)

**TBD**

**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)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	6 weeks to full semester
OTHER FORMAT (specify)							

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

Lecture

9. CONTACT HOURS PER WEEK:

3

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):

Example of a complete description:

FISH F487 W, O Fisheries Management  
3 Credits Offered Spring

Theory and practice of fisheries management, with an emphasis on strategies utilized for the management of freshwater and marine fisheries. Prerequisites: COMM F131X or COMM F141X; ENGL F111X; ENGL F211X or ENGL F213X; ENGL F414; FISH F425; or permission of instructor. Cross-listed with NRM F487. (3+0)

HSEM F417 Cyber Security Resiliency  
3 Credits Offered as Demand Warrants

This course focuses on the challenges faced by organizational leadership resisting, responding, and recovering from cyber-attacks impacting business critical data. This course will further the understanding of a new and demanding career field emerging within the emergency management and homeland security fields. Without the knowledge of how to build a cyber security resilient organization, the future emergency manager will lack critical skills. (prerequisite: HSEM 301 or permission of instructor) (3+0)

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:  NO:

IF YES, check which core requirements it could be used to fulfill:

O = Oral Intensive, Format 6  W = Writing Intensive, Format 7  X = Baccalaureate Core

11.A Is course content related to northern, arctic or circumpolar studies? If yes, a "snowflake" symbol will be added in the printed Catalog, and flagged in Banner.

YES  NO

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: Changing the grading system for a course later on constitutes a Major Course Change - Format 2 form.

LETTER:  PASS/FAIL:

**RESTRICTIONS ON ENROLLMENT (if any)**

14. **PREREQUISITES**

HSEM F301 or permission of instructor

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

15. **SPECIAL RESTRICTIONS, CONDITIONS**

16. **PROPOSED COURSE FEES**

\$

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?

No

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.

This course is primarily taught in a hybrid online/in class format so that the small HSEM classroom will be utilized. Adjunct faculty will teach the course.

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

Cyber security materials will generally be used. In the event that other library materials will be needed, they will be contacted.

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)

There will be no impact on other departments. HSEM students are specifically drawn to this course.

21. **POSITIVE AND NEGATIVE IMPACTS**

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

There are no negative impacts. This course offers more options for HSEM BEM students to specialize in their chose field.

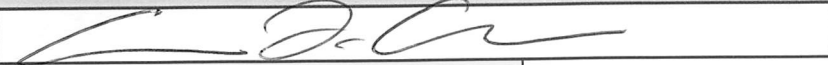


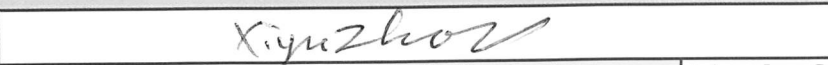
**JUSTIFICATION FOR ACTION REQUESTED**

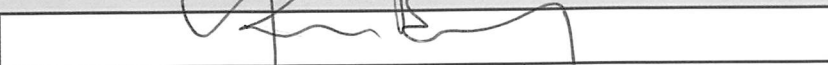
The purpose of the department and campus-wide curriculum committees is to scrutinize course change and new course applications to make sure that the quality of UAF education is not lowered as a result of the proposed change. Please address this in your response. This section needs to be self-explanatory.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

**This is a new course designed to provide specific materials to those BEM students who are already in the cyber security field and wishing to advance, or to those new students who might be looking for their first career jobs. It provides more choices for BEM students and may expose some to a field they might never have thought about.**

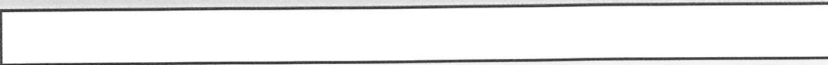
**APPROVALS: Add additional signature lines as needed.**

	Date	12 Oct 15
Signature, Chair, Program/Department of:	<u>HSEM</u>	

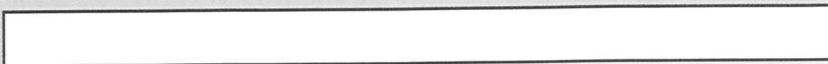
	Date	10/09/2015
Signature, Chair, College/School Curriculum Council for:	<u>School of Management</u>	

	Date	10/14/15
Signature, Dean, College/School of:	<u>School of Management</u>	

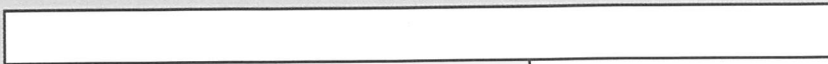
Offerings above the level of approved programs must be approved in advance by the Provost.


	Date	
Signature of Provost (if above level of approved programs)		

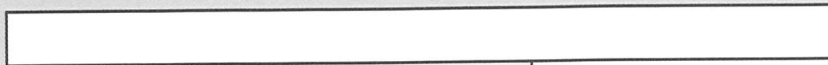
**ALL SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISSION TO THE GOVERNANCE OFFICE**

	Date	
Signature, Chair Faculty Senate Review Committee:	<input type="checkbox"/> Curriculum Review	<input type="checkbox"/> GAAC
	<input type="checkbox"/> Core Review	<input type="checkbox"/> SADAC

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

	Date	
Signature, Chair, Program/Department of:		

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

	Date	
Signature, Dean, College/School of:		

ATTACH COMPLETE SYLLABUS (as part of this application). This list is online at: <http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures-/uaf-syllabus-requirements/>  
The Faculty Senate curriculum committees will review the syllabus to ensure that each of the items listed below are included. If items are missing or unclear, the proposed course (or changes to it) may be denied.

#### SYLLABUS CHECKLIST FOR ALL UAF COURSES

During the first week of class, instructors will distribute a course syllabus. Although modifications may be made throughout the semester, this document will contain the following information (as applicable to the discipline):

1. Course information:

Title,  number,  credits,  prerequisites,  location,  meeting time (make sure that contact hours are in line with credits).

2. Instructor (and if applicable, Teaching Assistant) information:

Name,  office location,  office hours,  telephone,  email address.

3. Course readings/materials:

Course textbook title,  author,  edition/publisher.

Supplementary readings (indicate whether  required or  recommended) and

any supplies required.

4. Course description:

Content of the course and how it fits into the broader curriculum;

Expected proficiencies required to undertake the course, if applicable.

Inclusion of catalog description is *strongly* recommended, and

Description in syllabus must be consistent with catalog course description.

5.  Course Goals (general), and (see #6)

6.  Student Learning Outcomes (more specific)

7. Instructional methods:

Describe the teaching techniques (eg: lecture, case study, small group discussion, private instruction, studio instruction, values clarification, games, journal writing, use of Blackboard, audio/video conferencing, etc.).

8. Course calendar:

A schedule of class topics and assignments must be included. Be specific so that it is clear that the instructor has thought this through and will not be making it up on the fly (e.g. it is not adequate to say "lab". Instead, give each lab a title that describes its content). You may call the outline Tentative or Work in Progress to allow for modifications during the semester.

9. Course policies:

Specify course rules, including your policies on attendance, tardiness, class participation, make-up exams, and plagiarism/academic integrity.

10. Evaluation:

Specify how students will be evaluated,  what factors will be included,  their relative value, and  how they will be tabulated into grades (on a curve, absolute scores, etc.)  Publicize UAF regulations with regard to the grades of "C" and below as applicable to this course. (Not required in the syllabus, but is a convenient way to publicize this.) Link to PDF summary of grading policy for "C":

[http://www.uaf.edu/files/uafgov/Info-to-Publicize-C\\_Grading-Policy-UPDATED-May-2013.pdf](http://www.uaf.edu/files/uafgov/Info-to-Publicize-C_Grading-Policy-UPDATED-May-2013.pdf)

11. Support Services:

Describe the student support services such as tutoring (local and/or regional) appropriate for the course.

12. Disabilities Services: Note that the phone# and location have been updated.

<http://www.uaf.edu/disability/> The Office of Disability Services implements the Americans with Disabilities Act (ADA), and ensures that UAF students have equal access to the campus and course materials.

State that you will work with the Office of Disabilities Services (208 WHITAKER BLDG, 474-5655) to provide reasonable accommodation to students with disabilities.

**HSEM 417: Cyber Security Resiliency (Fall 2016)**

Credits: 3

Location: TBD based on classroom availability

Prerequisites: HSEM 301 or permission of instructor

Instructor: Tom Langdon

Adjunct Professor

School of Management, University of Alaska Fairbanks

Office: 230A Bunnell

Office Hours: TBD

Telephone: 907.474.1869

E-mail: [tjlangdon@alaska.edu](mailto:tjlangdon@alaska.edu)

**Course Description:**

This course focuses on the challenges faced by organizational leadership resisting, responding, and recovering from cyber-attacks impacting business critical data. This course will further the understanding of a new and demanding career field emerging within the emergency management and homeland security fields. Without the knowledge of how to build a cyber security resilient organization, the future emergency manager will be lacking critical skills.

**Course Objectives:**

Develop an understanding of:

- Relevancy of Cyber Security to organizations today
- Prevention and responses to cyber security incidents
- Assessment and management of ongoing cyber security risks
- Understanding of cyber security resiliency to protecting business continuity
- Understand industry best practices for resilient cyber architecture and infrastructure

**Course Text Books:**

1. Rance, Stuart, Mike St John-Green, and Moyn Uddin. *Cyber Resilience Best Practices*. Stationery Office, 2015. Print.
2. Vincent, Jerome. *Whaling for Beginners*. Vol. Book 1. Axelos, 2015. Print.

**Additional Reading:**

Additional reading assignments have been selected from articles and Web Sites. Where possible, the course author has obtained permission to include session handouts of the assigned reading.

**Instructional Method:**

The course format includes lecture, directed reading assignments, class discussion board topics and internet-based assignments via Blackboard. Case Study presentations will additionally be utilized as part of the instructional method with guest speakers facilitating discussions through lecture and questions developed as a class.

Recommended preparation: 9 hours weekly beyond class instruction

## Evaluations:

1. Weekly Assignments/Discussion Board Management 30%.
  - A. Total of 5 Quizzes are worth 20 points each.
  - B. Total of 10 Discussion Board Posts are worth 20 points each.
    - i. Discussion Board Posts are required to be approximately 250 words in length.
      1. The first post will be worth 10 points
    - ii. Students will also be required to comment, constructively, on at least 2 other student's posts each week. These comment should be no less than 150 words.
      1. Each of the 2 comments on another's posts will be worth 5 points for a total of 10 points.
  
2. Written Projects = 65%
  - A. Five (5) case study papers (100 points each): The papers are to be 3-4 pages in length and consistent with the APA format.
    - i. These case studies will require you to identify a cyber security incident, research, and evaluate the incident. In your paper you will build a brief of the incident and how it was managed by the affected organization.
    - ii. A grading rubric for the case studies is attached to the back of this syllabus.
  - B. Create a cyber disaster recovery and business continuity plan for a public or private organization (150 points)
    - i. This plan should be 5-7 pages in length and will be developed in consultation with the instructor.
    - ii. The grading rubric for the BCP is attached to the end of this syllabus.

\*\*\*For additional information on APA formatting:  
<https://owl.english.purdue.edu/owl/resource/560/01/>
  
3. IS – 523 Certificate = 5%
  - A. Completion of IS 523 FEMA Certificate = 5% (FEMA will only award the certificate with a passing score of 70%)

## Grading:

Quizzes (5) & Discussion Board Management (10) = 30% (300 points)  
Case Study Briefs (5 papers) = 50% (500 points)  
Cyber Disaster & Business Continuity Plan = 15% (150 points)  
IS 523 Certificate = 5% (50 points)  
Total = 1000 points

A= 90-100%   B= 80-89%   C= 70-79%   D= 60-69%   F= 59 % or less

**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 by losing 10% of available points each day, up to 100%. Students will also be penalized for non—attendance (outside of emergency or mutually agreed upon circumstances). Plagiarism on assignments and cheating on exams will not be tolerated. Work is to be original efforts to address the specific assignment at hand (in other words, don't submit work from another course). Students caught plagiarizing or cheating will be disciplined according to the appropriate University of Alaska guidelines.

\*\*Discussion Board etiquette: When both posting and responding to the discussion board requirements, remember that these are graded activities. Content is to address the requirement at hand and in terms of a response, be respectful and constructive in nature. Be sure to read the discussion board rubric found in the rubric folder for the course.

**Support Services:**

Students are encouraged to schedule an initial appointment and utilize the UAF Writing Center in 801 Gruening, ph 474-5314, <http://www.uaf.edu/english/writing-center/> for the first written case study review. Further assistance through the writing center is encouraged as needed to assist in the development and refinement of 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.

Distance students have access to the tutoring as well.

**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 # 474-5655). 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.



## **Course Schedule:**

### **Week 1:**

Introduction  
Review Syllabus  
Assign Cyber Continuity Plan

### **Week 2:**

Reading:  
-Chapter 1 in Whaling Text  
-Chapter 1 in Axelos Text  
Discussion Board #1: Introductions

### **Week 3:**

Reading:  
-Chapter 2-4 in Whaling Text  
Discussion Board #2  
Assign Case Study #1

### **Week 4:**

Reading:  
-Chapter 2 in Axelos Text  
Discussion Board #3: Risk Approaches

### **Week 5:**

Reading:  
-Chapter 3 in Axelos Text  
Quiz 1  
Case Study #1 Due

### **Week 6:**

Reading:  
-Chapter 4 Axelos Text  
Quiz 2

### **Week 7:**

Reading:  
-Chapter 4 in Axelos Text  
Discussion Board #4  
Assign Case Study #2

### **Week 8**

FEMA IS 523  
Quiz #3  
Discussion Board # 5

### **Week 9**

Reading:  
-Chapter 5 Axelos Text  
Case Study #2 Due  
Discussion Board #6

Assign Case Study #3

**Week 10**

Reading

-Chapter 6 Axelos Text

Discussion Board #7

**Week 11**

Reading

-Chapter 7 Axelos Text

Quiz 4

Case Study #3 Due

Assign Case Study #4

**Week 12**

Reading

-Chapter 7 Axelos Text

Discussion Board #8

**Week 13**

Reading

-Chapter 8 Axelos Text

Discussion Board #9

Case Study #4 Due

Assign Case Study #5

**Week 14**

Reading

-Chapter 9 Axelos Text

Quiz 5

**Week 15**

Reading

-current event topic defined by instructor

Case Study #5 Due

Discussion Board #10

**Week 16**

Finals Week (no finals for this course)

Cyber Continuity Plan Due

## 417 Case Study Rubric

### **Written Paper**

Students will be required to research and analyze a cyber security incident for the case studies. After analyzing the incident, students will provide an introduction with background information of the incident, as well as how the incident was resolved (whether it was successful or unsuccessful). Furthermore, students will provide at least 3 lessons learned from the events that can be used as examples of what was done right (or wrong) during the incident resolution.

Additionally, your paper needs to be double spaced, and include a cover page (this does not count as one of the 3-4 pages). It will be worth **100 points** and it will be evaluated using the grading criteria listed below. All papers must be written APA format and all sources need to be cited appropriately.

<i>Organization</i>	<i>/15</i>
<i>Style</i>	<i>/15</i>
<i>Content</i>	<i>/50</i>
<i>Grammar/spelling</i>	<i>/20</i>

**Papers turned in after the due date will be penalized.**

## **417: Final Paper**

### **Cyber Disaster Recovery Plan and Business Continuity Plan Paper Requirement**

To complete this, individuals will develop a business continuity plan “portfolio” based upon the analysis of either a private or public sector organization. Developing a plan for the organization you work for is the ideal direction of the plan, but not necessarily the only option in completing the project. Students are required to work with the instructor during the development of this plan and a consultation will need to occur at least once. This paper should be around 5-7 pages in length (double spaced with a cover page) and should encompass all of the elements utilized in business continuity plans. Templates are available in Blackboard to assist students with the development of their plans. To supplement the BCP elements found in the text, a folder in the Course Materials area has been set up (entitled Business Continuity Planning Documents) to provide you with examples and templates. **This part of the project will be worth 150 points.**

The points allocated for the **first** portion of writing:

<i>Organization</i>	<i>/30</i>
<i>Format</i>	<i>/20</i>
<i>Content</i>	<i>/50</i>
<i>Grammar/spelling</i>	<i>/30</i>
<i>Instructor input</i>	<i>/20</i>

**\*Papers turned in after finals week (May 6<sup>th</sup>) will not be accepted.**