

Department Name and Number **Construction Management/011503000**

Recommended SCNS Course Identification
 Prefix F E S Level 3 Course Number X X X Lab Code _____
 Full Course Title Analytical Approaches to Fire Protection
 Transcript Title (please limit to 21 characters) Anal App to Fire Prot

Effective Term and Year **Fall 2015** Rotating Topic yes no

Amount of Credit 03 Contact Hour: Base 3 or Headcount _____ S/U Only yes no

Repeatable Credit yes no If yes, _____ total repeatable credit allowed

Variable Credit yes no If yes, _____ minimum and _____ maximum credits per semester

Course Description (50 words or less)
 This course examines the tools and techniques of rational decision making in fire and emergency services agencies, including data collection, statistics, probability, decision analysis, utility modeling, resource allocation, and cost-benefit analysis.

Prerequisites
 Junior or Senior standing

Co-requisites
 None

Degree Type (mark all that apply) Baccalaureate Graduate Professional Other _____

Category of Instruction Introductory Intermediate Advanced

Rationale and place in curriculum
 This course is one of the courses for the Florida Fire Chief III certification.

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College Contact Name **Margaret Carr** Email **mcarr@ufl.edu**
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SYLLABUS

Course: Analytical Approaches to Public Fire Protection

COURSE & SECTION: FES 3XXX

CREDIT HOURS: 3

SESSION:

** ON-LINE

** THERE WILL BE TIMES SCHEDULED FOR ON-LINE MEETINGS.

INSTRUCTOR: *Dr. Jeffrey Lindsey, PhD, PM, CFO, EFO*

Office Rinker School of Construction Management

Room 303

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353-273-1199

Bio for Jeffrey Lindsey, Ph.D., PM, EFO, CFO

Dr. Lindsey is an experienced leader, educator, lecturer, author, and consultant in emergency services. He has authored a number of textbooks for Brady Publishing. Dr. Lindsey earned his doctorate and master's degree in Curriculum and Instruction from USF. He holds a bachelor's degree in Fire and Safety Engineering from the University of Cincinnati, and an associate in paramedic from Harrisburg Area Community College. He also has earned his Chief Fire Officer designation and completed the Executive Fire Officer program. He was the 2011 recipient of the IAFC EMS section James O. Page EMS award.

Dr. Lindsey has been involved in the emergency services industry since 1980. He has a diverse background with experience as a paramedic, firefighter, 911 dispatcher, and educator. He served in various ranks including fire chief. He is an associate member of the Pre-hospital Research Forum, representative to the Fire and Emergency Services Higher Education EMS degree committee, liaison for the IAFC EMS section to ACEP, and a number of other appointments through his career. He served on the inaugural National EMS Advisory Council and was the safety chairperson of the Council. He has served in the past as a member of the State of Florida EMS Advisory Council, vice –chair of the Florida Fire Chief's EMS section, NAEMT Governor representing Florida, board member of NAEMSE, and Chairperson of the Strategic Planning committee for the Lee County Fire Chief's Association.

OFFICE HOURS: *I am in the office (Rinker 303) Mon – Fri; hours vary depending on travel and meetings. However, I am usually available 8am – 3 pm. You can email me any time.*

****COURSE WEBSITE:** *<http://lss.at.ufl.edu>*

**** COURSE COMMUNICATIONS:** *There is a General Discussion tab that can be used, or send me an email through the course email. Urgent messages can be sent to my Jeffrey.lindsey@ufl.edu email.*

REQUIRED TEXT:

Fire Protection Handbook, 20th Edition (2008); Volumes I and II, Arthur E. Cote (Editor), National Fire Protection Association ISBN: 9780877657583

Download for free the Fire Data Analysis Handbook, 2nd ed., (2004) U.S. Fire Administration <http://www.usfa.fema.gov/fireservice/nfirs/tools/index.shtml>

****ADDITIONAL RESOURCES:** *Use resources on the course site under the Resource tab*

****COURSE DESCRIPTION:** *This course examines the tools and techniques of rational decision making in fire and emergency services agencies, including data collection, statistics, probability, decision analysis, utility modeling, resource allocation, and cost-benefit analysis.*

****PREREQUISITE KNOWLEDGE AND SKILLS:** *Junior or Senior standing*

PURPOSE OF COURSE: *This course covers the basis of fire protection in a community.*

COURSE GOALS AND/OR OBJECTIVES: *By the end of this course, students will:*

1. Discuss the uses of analytical approaches to rational decision making.
2. Differentiate techniques of analysis.
3. Select appropriate analytic tools to support critical thinking.

4. Discuss how the use of databases, histograms, inferential statistics and probabilities and GIS are used in fire station location planning.
5. Apply the 5 -step cost-benefit analysis process to justify essential budgetary needs.
6. Use linear programming to solve fire department equipment, revenue, facility and personnel issues

**** HOW THIS COURSE RELATES TO THE STUDENT LEARNING OUTCOMES IN THE FIRE EMERGENCY SERVICES PROGRAM:** *Identify and evaluate organizational problems associated with fire and emergency services. Illustrate knowledge and legal application of safety, health and environmental regulations at state and federal levels. Demonstrate strong verbal and written communication skills for leadership in fire and emergency services.*

****TEACHING PHILOSOPHY:** *I am expecting students to demonstrate a working knowledge of the subject. You need to be creative when you complete your assignments but your written work should reflect professionalism. Your work needs to be complete and written in such a manner that someone can pick up your document and understand what you are trying to convey. Most of all, your work needs to be supported with research and cited properly in APA format.*

****INSTRUCTIONAL METHODS:** *The course is designed for individual and group interactivity. It is important to post and respond to discussion questions in the course within the time frame allotted. This provides a learning environment by enabling you to network with other students in the course. The assignments are individual- based to give you the opportunity to do a variety of activities, in many cases, similar to what you will be doing in your role as a leader in the emergency services profession.*

COURSE POLICIES:

ATTENDANCE POLICY: *The course is designed in module format. You should check the site at least once a week. You are required to complete the assignments including discussion questions within the time period designated on the module. There will be meetings set up throughout the course. Requirements for class attendance and make-up*

exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalog at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

****QUIZ/EXAM POLICY:** *There is a final project for this course. There are no exams or quizzes.*

MAKE-UP POLICY: *To receive credit, you must contact me if you are going to be late submitting any assignment..*

****ASSIGNMENT POLICY:** *All assignments have a due date. Please be sure to check the date and time it is due in each module.*

****COURSE TECHNOLOGY:** *Class meetings will require a web camera and mic/audio. If you are not able to use a web camera you will need to at least provide audio/mic. You can also call in by phone.*

**** UF'S HONESTY POLICY**

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obliged to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor of this class.

UF POLICIES:

UNIVERSITY POLICY ON ACCOMMODATING STUDENTS WITH DISABILITIES: Students requesting accommodation for disabilities must first register with the Dean of Students Office (<http://www.dso.ufl.edu/drc/>). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the

instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive; therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

UNIVERSITY POLICY ON ACADEMIC MISCONDUCT: Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Student Honor Code at <http://www.dso.ufl.edu/students.php>.

****NETIQUETTE: COMMUNICATION COURTESY:** All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. To understand what is expected and what will occur as a result of improper behavior, see the website:

<http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf>

GETTING HELP:

For issues with technical difficulties for E-learning in Sakai, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- <https://lss.at.ufl.edu/help.shtml>

**** Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from LSS when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.**

Other resources are available at <http://www.distance.ufl.edu/getting-help> for:

- Counseling and Wellness resources
- Disability resources
- Resources for handling student concerns and complaints
- Library Help Desk support

Should you have any complaints with your experience in this course please visit <http://www.distance.ufl.edu/student-complaints> to submit a complaint.

TENTATIVE COURSE SCHEDULE:

Week 1	Introduction – online post Read Syllabus and review course content Assign Module One – Discussion and Assignment Rational Decision making Assign Final Project
Week 2	Research Analysis Module One Discussion and Assignment due
Week 3	Descriptive statistics Assign Module Two – Discussion and Assignment
Week 4	Inferential statistics Two discussion and assignment due
Week 5	Probability Assign Module Three discussion and assignment
Week 6	Decision Analysis Module Three discussion and assignment due
Week 7	Mathematical Modeling Assign Module Four discussion and assignment
Week 8	Resource Allocation Module Four discussion and assignment due
Week 9	Geographical Information Systems Assign Module Five discussion and assignment

Week 10	Cost-Benefit Analysis Module Five discussion and assignment due
Week 11	Linear programming Assign Module Six discussion and assignment
Week 12	Case Studies Module Six discussion and assignment due
Week 13	Case Studies continued Assign Module Seven discussion and assignment
Week 14	Case Studies continued Module Seven discussion and assignment due
Week 15	Final Project due

GRADING POLICIES:

The grade is based on a point system. You divide the total number of earned points into the total amount of points available to determine your grade. A grading rubric for the final project is under the Resource Tab on the course.

Assignment	Points or percentage
Grading Discussion Participation – 15 points each discussion	105 points
Homework Assignments – points each assignment	105 points
Final Project - comprehensive and applied	100 points
Total Grade	310 points

GRADING SCALE

Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
Numeric Grade	93-100	90-92	87-89	83-86	80-82	77-79	73-76	70-72	67-69	63-66	60-62	0-59
Quality Points	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	0.67	0.0

For greater detail on the meaning of letter grades and university policies related to them, see the Registrar's Grade Policy regulations at

<http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html>

EVALUATION PROCESS:

Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu>.

All UCC1 forms and each UCC2 form that proposes a change in the course description or credit hours must include this checklist in addition to a complete syllabus. Check the box if the attached syllabus includes the indicated information.

Syllabus MUST contain the following information:

- Instructor contact information (and TA if applicable)
- Course objectives and/or goals
- A weekly course schedule of topics and assignments
- Required and recommended textbooks
- Methods by which students will be evaluated and their grades determined
- A statement related to class attendance, make-up exams and other work such as: "Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalog at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>."
- A statement related to accommodations for students with disabilities such as: "Students requesting classroom accommodation must first register with the Dean of Student Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation."
- Information on current UF grading policies for assigning grade points. This may be achieved by including a link to the appropriate undergraduate catalog web page <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.
- A statement informing students of the online course evaluation process such as: "Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu>."

It is recommended that syllabi contain the following information:

1. Critical dates for exams and other work
2. Class demeanor expected by the professor (e.g., tardiness, cell phone usage)
3. UF's honesty policy regarding cheating, plagiarism, etc. Suggested wording: UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obliged to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor of TAs in this class.
4. Phone number and contact site for university counseling services and mental health services: 392-1575, <http://www.counseling.ufl.edu/cwc/Default.aspx>
University Police Department: 392-1111 or 9-1-1 for emergencies.

The University's complete Syllabus Policy can be found at:
http://www.aa.ufl.edu/Data/Sites/18/media/policies/syllabi_policy.pdf