

FES 3780 Analytical Approaches to Public Fire Protection

Course & Section: FES 3780

Credit Hours: 3

Session: Summer 2020

** On-line

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Bio for Dr. Chris Reynolds, CEM, EFO, MEMS, CFO (Lt.Col., USAF, Ret.)

Hello everyone. My name is Dr. Chris Reynolds and I am your professor for this class. I retired after 32 years as a Deputy Chief/Shift Commander with Hillsborough County Fire Rescue (Tampa, FL). I am a board certified emergency manager (CEM) and hold a doctorate in education. I am also a Chief Fire Designee (CFO) through the International Association of Fire Chief's (IAFC) and a graduate of the Executive Fire Officer (EFO) program at the National Emergency Training Center in Emmitsburg, Maryland. I also hold the Military Emergency Manager Specialist Master Badge.

I also retired from the United States Air Force Reserve as a Lieutenant Colonel, finishing up my 21 year Air Force career as an Emergency Preparedness Liaison Officer (EPLO) assigned to the Defense Support of Civilian Authorities (DSCA) Command Cell, 1st Air Force (Air Forces Northern), Tyndall Air Force Base, Fla. Air Force EPLOs support the designated combatant commander and lead federal agencies to assist in coordinating military support to local, state and federal agencies involved in domestic incident management. I was deployed to the Oklahoma City Bombing in 1995, assisting the FEMA Incident Support Team (IST) on site. Again, in 1995 I was deployed to the Florida State Emergency Operations Center as a part of the State Emergency Response Team (SERT) and coordinated all firefighting and urban search and rescue operations during Hurricane Opal.

In my military role, I deployed to New Orleans in the aftermath of Hurricane Katrina as the officer in command of an aeromedical evacuation liaison team (AELT) that was a part of Joint Task Force (JTF) Katrina and coordinated joint civilian/military airlift of over 20,000 evacuee's and 4,500 casualties. I had the honor and privilege of deploying with a GREAT team of personnel shortly after the September 11th attacks. My Team and I were among the first mobilized in the aftermath of the September 11th attacks in 2001 and deployed as the commanding officer of an Aeromedical Evacuation Team to two classified forward locations in the Afghanistan/Pakistan area. My Team coordinated the medical evacuation of US and coalition combat casualties and directly supported combat search and rescue operations. Our Team was recognized by the Department of Defense and awarded the valor "V" device for our efforts. In 1995, I deployed to Haiti during OPERATION

UPHOLD DEMOCRACY and coordinated rotary lift-aeromedical evacuation between Port A' Prince and the USNS Comfort. Most recently, I was deployed during the Haitian Earthquake and coordinated all casualty movement from the Haiti AOR to South Florida air hubs for transport to US Trauma Centers.

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.

Purpose of Course: This course covers techniques & methods for making objective evaluations of fire protection and emergency medical services (EMS) in the community.

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 looking for students to demonstrate a working knowledge of the subject. You need to be creative when you complete your assignments but maintain a professional appearance of your work. Your work needs to be complete and in such a manner that someone can pick up your document and understand what you are trying to convey. Most of your work needs to be supported with research and cited in 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 networking with other students in the course. The assignments are individual base to give you the opportunity to do a variety of activities, in many cases, similar to what you will be doing in role as a leader in the emergency services profession.

Prerequisite Knowledge and Skills: None

Learning Objectives

The student will be able to:

- Discuss the uses of analytical approaches to rational decision making.
- Differentiate techniques of analysis.
- Select appropriate analytic tools to support critical thinking.
- Discuss how the use of databases, histograms, inferential statistics and probabilities, and GIS are used in fire/EMS station location planning.
- Apply a cost-benefit analysis process to justify essential budgetary needs.
- Each of the above five goals represent one of five (5) Modules which make up this course. Each Module is approximately three weeks in length. However, there are

quizzes, discussions or essays/assignments which are due each week of the semester. To do well, you must keep up with the course workload.

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- Apply a cost-benefit analysis process to justify essential budgetary needs.

Each of the above goals represent one of five (7) Modules which make up this course. Each Module is approximately two weeks in length. However, there are quizzes, discussions or essays/assignments which are due each week of the semester. To do well, you must keep up with the course workload.

Course Goals

- **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 looking for students to demonstrate a working knowledge of the subject. You need to be creative when you complete your assignments but maintain a professional appearance of your work. Your work needs to be complete and in such a manner that someone can pick up your document and understand what you are trying to convey. And most of all your work needs to be supported with research and cited in 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 networking with other students in the course. The assignments are individual base to give you the opportunity to do a variety of activities, in many cases, similar to what you will be doing in 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:** You must contact me if you are going to be late on any assignment to receive credit.
- **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 call in on a phone also.

Canvas Information & Technology

For issues with technical difficulties for E-learning in Canvas, 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

UF Honor Code

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 in 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. Here is the [link](#).

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](#).

Netiquette: Communication Courtesy: All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats.

Grading Scale

A= 93.0 to 100%	C = 73.0 to 76.9%
A- = 90.0 to 92.9%	C- = 70.0 to 72.9%
B+ = 87.0 to 89.9%	D+ = 67.0 to 69.9%
B = 83.0 to 86.9%	D = 63.0 to 66.9%
B- = 80.0 to 82.9%	D- = 60.0 to 62.9%
C+ = 77.0 to 79.9%	F = below 60

See <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx> (Links to an external site.)Links to an external site. regarding current UF grading policies.

Course Grades

Assignment	Point or Percentage
Uploaded Assignments (2)	200 points
Forum Assignments (3)	150 points
Final Project- Comprehensive & Applied	200 points
Total Grade	550 points

Late Assignments and Discussion Posts

- Assignments 48 hours late will receive a 10% deduction in their grade.
- Assignments more than 48 hours but less than 30 days late will receive a 20% deduction in their grade.
- Assignments more than 30 days late but submitted during the semester will receive a 50% deduction in their grade.
- Discussions more than 48 hours late will receive a 25% deduction in their grade.
- Discussions more than 48 hours later will receive a 50% deduction in their grade.

Please note: Any student have less than 75% of their work complete for the semester cannot earn an “I” contract. If you have 75% of the work complete, you can propose an I contract to the instructor. It is your responsibility to keep your instructor informed at all times. The instructor does have the right under extenuating circumstances with proper notification to assist the student by extending the above time requirements.

***Points will be deducted for all late assignments.**

Course Schedule

Module	Week	Assignment
1	Week 1	<ul style="list-style-type: none">• Introduction – online post• Read Syllabus and review course content• Review Final Project• Community Characteristics & Risk Assessment
	Week 2	<ul style="list-style-type: none">• Current Deployment & Performance• Discussion Forum Due
2	Week 3	<ul style="list-style-type: none">• Data Analysis
	Week 4	<ul style="list-style-type: none">• Data Analysis• Assignment Upload Due
3	Week 5	<ul style="list-style-type: none">• Data Charts

	Week 6	<ul style="list-style-type: none"> • Mathematical Modeling • Assignment Upload Due
4	Week 7	<ul style="list-style-type: none"> • Geospatial Information Systems (GIS)
	Week 8	<ul style="list-style-type: none"> • Geospatial Information Systems (GIS) • Discussion Forum Due
5	Week 9	<ul style="list-style-type: none"> • Deployment Strategies
	Week 10	<ul style="list-style-type: none"> • Deployment Strategies • Discussion Forum Due
6	Week 11-13	<ul style="list-style-type: none"> • Work on Final Project
7	Week 14-15	<ul style="list-style-type: none"> • FINAL PROJECT DUE

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.