School of Public Service and Health Senior Seminar in Fire Science FSMT 498 3 Credit Hours 8-Weeks Prerequisite(s): None

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Instructor Information

Instructor.
Email:
Phone:
Fax
Office Hours:

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Course Description (Catalog)

This senior capstone course allows students majoring in fire science to analyze specific program related issues and problems using the knowledge and understanding gained by completing the required courses in the program and a significant number of the major courses. This is a capstone course to be taken after all other Fire Science courses have been satisfactorily completed. Students must have submitted a graduation application and have been cleared by the graduations department prior to registering for this course.

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Course Scope

The modern fire/EMS service requires officers who can administrate and manage an increasingly complex organization that is called to respond to all the hazards facing a community. This course is designed to allow you to apply what you have learned so far in your degree studies to a specific risk or problem facing your community or organization and develop an integrated solution that takes into account the needs of the community, and for finance, personnel, planning and training. The readings, forums and essays are designed to allow you to examine the issues facing fire officers as the fire service adapts to future demands and service needs of the community.

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Course Objectives

Course Objectives:

OC-1: Identify the place of a fire/EMS department as part of local government services.

OC-2: Draw conclusions on how various government and professional organizations are able to assist your department in safely and efficiently performing its duties.

OC-3: Identify the core management style skills essential to administrative success.

OC-4: Evaluate the management style of your organization and how that affects the performance of a department.

- **OC-5:** Apply strategic planning to your department's operational needs.
- **OC-6:** Develop and apply a vision of the future.
- **OC-7:** Identify the major steps in a community risk analysis.

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Course Delivery Method

This course will offer the student a highly interactive virtual classroom. Each week's lesson will have a course announcement, assigned readings, a forum question based on either course readings or an internet-based project, and lessons provided by the instructor. Since the student is expected to fully participate in forums and interact with the instructor and other students, reading assignments and assigned projects should be completed in a timely manner.

(**Note to Students:** The course materials, assignments, learning outcomes, and expectations in this upper level undergraduate course assume that the student has completed all lower level general education and career planning coursework necessary to develop research, writing, and critical thinking skills. Students who have not fulfilled

all general education requirements through courses or awarded transfer credit should strongly consider completing these requirements prior to registering for this course.)

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Texts and Materials

Text:

Theil, Adam K. and Charles R. Jennings, Editors. *Managing Fire and Rescue Services*. International City/County Management Association Press. ISBN 978-0-87326-763-2.

Other Materials: Other Course Materials - use course CD or available on line, go to Web Resources for hot link to the report:

- United States Fire Administration, Socioeconomic Factors and the Incidence of Fire
- United States Fire Administration, Four Years Later A Second Needs Assessment of the U.S. Fire Service
- United States Fire Administration, *Responding to Incidents of National Consequence*
- United States Fire Administration, *Developing Effective Standard Operating Procedures for Fire & EMS Departments*
- United States Fire Administration, *Funding Alternatives for Fire and Emergency Services*
- United States Fire Administration, *Strategies for Marketing Your Fire Department Today and Beyond*
- United States Fire Administration, Beyond Solutions 2000
- United States Fire Administration, Solutions 2000
- United States Fire Administration, FA-166 Risk Management Practices In The Fire Service

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Evaluation Procedures

Grades for this course will be based upon seven grading instruments. There are questions that are provided in the Forums. These will allow you a view of what others might think on a topic. You will be able to respond to the posting of other students and thus to gain the insight of others on the topic. The examinations are a composite of multiple choice questions and short essays. The other assignments questions are chosen to reinforce concepts introduced by the text. It is expected that the student will provide a detailed answer to these in order to demonstrate an understanding of the subject. The essay and problems are a way for you to review material and develop a solution based on your research, background and knowledge. The research paper is

designed to allow you to apply lessons learned to a practical problem and give you practice at developing material for use in the field.

The grade scale, percentages and due dates (Due dates will be part of the **Instructor's Notes** for the course) for each of the evaluations will be provided:

Grade Instruments:	<u>Points</u>	<u>% of Final Grade</u>
Forums	45 pts.	45%
Essays	5 pts.	10%
Problems	18 pts.	18%
Exams	12 pts.	12%
Research Paper Topic to Instructor	5 pts.	5%
Research Paper	<u>10 pts.</u>	<u> 10% </u>
	100 pts.	100%

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	Course Outline			
<u>8-</u> Week	Topics	<u>Course</u> Objectives	<u>Readings</u>	Assignments
1	Evaluating local risks and planning for the necessary resources for modern fire protection, emergency medical and rescue services.	OC-1: Identify the place of a fire/EMS department as part of local government services. OC-2: Draw conclusions on how various government and professional organizations are able to assist your department in safely and efficiently performing its duties. OC-7: Identify the major steps in a community risk analysis.	Readings Theil, Adam K. and Charles R. Jennings, Editors. Managing Fire and Rescue Services. Read pages 29-92. Supplemental Readings U. S. Fire Administration, Socioeconomic Factors and the Incidence of Fire U. S. Fire Administration, Four Years Later - A Second Needs Assessment of the U.S. Fire Service	Assignments <u>Read</u> the required readings <u>Forum One</u> : Post a paragraph of at least 250 words to Forum One that gives a brief biography of you including your present position and what you are looking to get out of this course then reply to at least two other student's postings. This must be posted not later than midnight on Sunday or you will be automatically dropped from the course. <u>Forum Two</u> : Take a moment to look at your community and the problems that challenge emergency responders. Pick just one of the problems and what problem it presents to your department and community. After posting a 50 to 100 word comment on your problem, respond to two other student's problems by presenting a possible solution and post that as a reply. <u>Submit to the Instructor</u> (Use the place for this in assignments) with your proposal for a final project topic for instructor's approval. See the information on the final project for detailed guidance on this.
2	Leadership strategies for the fire administrator – a community approach to organizing and deploying resources	OC-1: Identify the place of a fire/EMS department as part of local government services. OC-2: Draw conclusions on	Theil, Adam K. and Charles R. Jennings, Editors. <i>Managing Fire</i> <i>and Rescue Services</i> . Read pages 185-218. Supplemental Readings <i>U. S. Fire Administration</i> , Beyond Solutions 2000	Read the required readings Forum Three: Submit a post that discusses the relationship between your department and the local government (the authority having jurisdiction) and your department and the pubic. After posting respond to at least two other student's postings.

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		how various government and professional organizations are able to assist your department in safely and efficiently performing its duties. OC-3: Identify the core management style skills essential to administrative success. OC-4: Evaluate the management style of your organization and how that affects the performance of a department. OC-5: Apply strategic planning to your department's operational needs.	U. S. Fire Administration, Solutions 2000	Problem One: Read the news article in lesson two and write a 3 to 4 page paper on how you would handle this problem and what groups you would enlist to assist you.
3	Core Skills I: Human resources and fiscal management overview	OC-3: Identify the core management style skills essential to administrative success. OC-4: Evaluate the management style of your organization and how that affects the performance of a department. OC-5: Apply strategic planning to your department's operational needs. OC-6: Develop and apply a vision of the future.	Theil, Adam K. and Charles R. Jennings, Editors. <i>Managing Fire</i> <i>and Rescue Services</i> . Read pages 219-271 Supplemental Readings <i>U. S. Fire Administration</i> . Funding Alternatives for Fire and Emergency Services	<u>Read</u> the required readings <u>Forum Four</u> : In a paragraph discuss the management theory of your organization and how that affects its relationship to its personnel and the community. After posting respond to at least two other student's postings. <u>Problem Two</u> : Read the news article in lesson three and write a 3 to 4 page paper on how you would handle this problem and what groups you would enlist to assist you.

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4	Core Skills II: Capital resource management and leading and managing change	OC-3: Identify the core management style skills essential to administrative success. OC-4: Evaluate the management style of your organization and how that affects the performance of a department. OC-5: Apply strategic planning to your department's operational needs. OC-6: Develop and apply a vision of the future.	Theil, Adam K. and Charles R. Jennings, Editors. <i>Managing Fire</i> <i>and Rescue Services</i> . Read pages 333-387. Supplemental Readings U. S. Fire Administration, <i>Funding</i> <i>Alternatives for Fire and</i> <i>Emergency Services</i> U. S. Fire Administation, <i>Strategies for Marketing Your Fire</i> <i>Department Today and Beyond</i>	<u>Read</u> the required readings <u>Forum Five</u> : Looking at your department and community – is there a vision for the future? Is this vision consistent with the community's vision for itself? Is the public aware of the vision? Do you agree with that vision? Post this to Forum Five and reply to at least two other student's postings. <u>Exam One</u> : Submit Examination One.
5	Training for fire and emergency response Measuring the performance and organizational improvement of a fire/EMS organization	OC-1: Identify the place of a fire/EMS department as part of local government services. OC-4: Evaluate the management style of your organization and how that affects the performance of a department. OC-5: Apply strategic planning to your department's operational needs. OC-6: Develop and apply a vision of the future.	Theil, Adam K. and Charles R. Jennings, Editors. <i>Managing Fire</i> <i>and Rescue Services</i> . Read pages 247-271. Supplemental Readings <i>U. S. Fire Administration</i> . Developing Effective Standard Operating Procedures for Fire & EMS Departments	 <u>Read</u> the required readings <u>Forum Six</u>: Identify changes in your community that will require a change in the way your agency carries out its duties and estimate how much resistance there would be to the change. Post this to Forum Six and reply to at least two other student's postings. <u>Essay One</u>: Read the news article in lesson five and write a 2 to 3 page paper on how you would handle this problem and what groups you would enlist to assist you.
6	Regulations and community liability and risk management	OC-1: Identify the place of a fire/EMS department as part of local government services. OC-5: Apply strategic planning to your department's operational needs. OC-6: Develop and apply a vision of the future. OC-7: Identify the major steps in a community risk analysis.	Theil, Adam K. and Charles R. Jennings, Editors. <i>Managing Fire</i> <i>and Rescue Services</i> . Read pages 273-330. Supplemental Readings U. S. Fire Administration. <i>FA-166</i> <i>Risk Management Practices In</i> <i>The Fire Service</i>	<u>Read</u> the required readings <u>Forum Seven</u> : Discuss how prepared you feel your organization is for the most serious risk identified by your community's risk analysis Post this to Forum Seven and reply to at least two other student's postings. <u>Problem Three</u> : Read the news article in lesson six and write a 3 to 4 page paper on how you would handle this problem and what groups you would enlist to assist you.
7	Information management and communication system	OC-1: Identify the place of a fire/EMS department as part of local	Theil, Adam K. and Charles R. Jennings, Editors. <i>Managing Fire</i> <i>and Rescue Services</i> . Read pages 427-479	Read the required readings Forum Eight: How is your department dispatched to an alarm?

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	management Emergency response centers and intergovernmenta I cooperation	government services. OC-2: Draw conclusions on how various government and professional organizations are able to assist your department in safely and efficiently performing its duties. OC-5: Apply strategic planning to your department's operational needs. OC-6: Develop and apply a vision of the future. OC-7: Identify the major steps in a community risk analysis.		Who performs this duty and how do you feel it can be improved? Post this to Forum Eight and reply to at least two other student's postings. Exam Two: Submit Examination Two.
8	Information management and communication system management Emergency response centers and intergovernmenta I cooperation	OC-1: Identify the place of a fire/EMS department as part of local government services. OC-2: Draw conclusions on how various government and professional organizations are able to assist your department in safely and efficiently performing its duties. OC-3: Identify the core management style skills essential to administrative success. OC-4: Evaluate the management style of your organization and how that affects the performance of a department. OC-5: Apply strategic planning to your department's operational needs. OC-6: Develop and apply a vision of the future.	Theil, Adam K. and Charles R. Jennings, Editors. <i>Managing Fire</i> <i>and Rescue Services</i> . Read pages 391-425 Supplemental Readings U. S. Fire Administration. Responding to Incidents of National Consequence	Read the required readings Forum Nine: Applying what you have learned to the problem you posted to Forum Two, post a comment on how you would solve that problem now. Post this to Forum Nine and reply to at least two other student's postings. Essay Two: Read the news article in lesson eight and write a 2 to 3 page paper on how you would handle this problem and what groups you would enlist to assist you. Research Paper: Submit research paper.

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INFORMATION ON THE RESEARCH PROJECT/PAPER

Overview: Complete a final project/paper on a major problem or challenge to your community that is of importance to your department and will require changes in how the department provides its service to the community. Examples of topics are child fire setting, finance problems, immigrant communities, minority recruiting, recruiting volunteers, etc. The field is wide open, but your paper must provide a real solution, that is legal and practical to the problem. Use this as a chance to apply all that you have learned to research a solution that will aid your community

I. The Research/Position Paper:

Subject: The topic of your research paper must be approved by the instructor. Your research paper must reflect your own original thoughts, even though the issues may have been previously presented elsewhere.

Format: The research paper will be 15-20 text pages long using Ariel or Times New Roman 12 point font and double-spaced throughout. The cover page, bibliography, footnotes / endnotes do not apply as text pages. Include a cover page with the title of the paper and the student's name. The research paper must include a bibliography of at least six academically critical sources. While an encyclopedia may be useful as a starting point, it cannot count as one of the six sources. If there is a question about whether a source meets the academic criteria, contact the instructor. These sources may all be secondary, but primary sources may also be used. The student is encouraged to use as many sources as appropriate. However, a huge bibliography will not compensate for a weak or poorly-constructed paper. Review the "Citation and Reference Style" section of this syllabus.

Style: The style of the research paper must be in the format of a position paper for your department with the idea that this is to be submitted to the authority having jurisdiction to clarify or correct a problem with the issue being addressed. As this is being written for politicians insure that you write clearly and present any options and why you chose the option you did and the legal and regulatory backup for your decision. Transition from one idea to another should be smooth. Do not number your paragraphs or sub-paragraphs and do not break them up. The following criteria are essential for the research paper:

1) introduction providing a thesis statement;

- 2) **body** providing a discussion of central themes supported by properly cited sources; and,
- 3) **conclusion** drawing together the themes of the paper in a succinct and persuasive manner.

Submission: Submit the Research Paper to the assignment area.

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Polices

ACADEMIC DISHONESTY: PLAGIARISM AND CHEATING

The University System supports and promotes academic honesty and personal integrity. Cheating can take the following forms:

- Submitting another person's work
- Writing a paper for someone else
- Working in a group effort without faculty consent
- Buying a paper from a research service
- Getting outside help or giving outside help without a teacher's expressed permission
- Submitting the same work for credit without approval (e.g. submitting the same assignment twice for different courses)

The Web & Plagiarism Note: The Web has made it quite easy to copy and insert materials into a paper. Students must be careful to properly attribute materials found on the Web. In a collegiate setting, attribution typically relies on a formal academic style manual for its citation models (See <u>Citation and Reference Style</u>). Such models describe how to append footnotes and endnotes, when:

- Quoting another's exact words, you are obviously expected to name the author and place the words in quotation marks or in indented text blocks. The citation number is placed immediately at the end of the quotation.
- Acknowledging background sources to your own descriptions--. The citation number is normally placed at the end of the paragraph.

Note: The University offers tools in its <u>Online Library Research Center</u> to help you analyze your papers for possible plagiarism violations and for instructors to uncover such activities.

WRITING EXPECTATIONS

All written submissions should be submitted in a font and page set-up that is readable and neat. It is recommended that students try to adhere to a consistent format, which is described below.

- Typewritten in double-spaced format with a readable style and font and submitted inside the electronic classroom (unless classroom access is not possible and other arrangements have been approved by the professor).
- Arial 11 or 12-point font or Times New Roman styles.
- Page margins Top, Bottom, Left Side and Right Side = 1 inch, with reasonable accommodation being made for special situations and online submission variances.

CITATION AND REFERENCE STYLE

Assignments completed in a narrative essay or composition format must follow APA guidelines. This course will require students to use the citation and reference style established by the American Psychological Association as set forth in their latest manual.

COURSE EXTENTIONS

Students must determine the need for their first Course Extension and submit their "Request Course Extension" form *before* the end of the course. Please refer to the Student Handbook for the process required.

LATE ASSIGNMENTS

For each week that an assignment is late, two points may be deducted from your grade for the assignment unless the student contacts the instructor ahead of time about an extenuating situation.

DISABILITY ACCOMODATIONS

This institution complies with the <u>Americans with Disabilities Act, Section 504 of the</u> <u>Rehabilitation Act</u>, and the <u>World Wide Web Consortium's (W3C) Universal Access</u> <u>Guidelines</u>. Students with special needs should inform their individual instructors and the University's student services staff.

NETIQUETTE

Online universities promote the advance of knowledge through positive and constructive debate--both inside and outside the classroom. Discussions on the Internet, however, can occasionally degenerate into needless insults and "flaming." Such activity and the loss of good manners are not acceptable in a university setting--basic academic rules of good behavior and proper "Netiquette" must persist. Remember that you are in a place for the fun and excitement of learning that does not include descent to personal attacks, or student attempts to stifle the discussion of others.

• **Technology Limitations:** While you should feel free to explore the full-range of creative composition in your formal papers, keep e-mail layouts simple. The Educator classroom may not fully support MIME or HTML encoded messages, which means that bold face, italics, underlining, and a variety of color-coding or other visual effects will not translate in your e-mail messages.

• **Humor Note:** Despite the best of intentions, jokes and--especially--satire can easily get lost or taken seriously. If you feel the need for humor, you may wish to add "emoticons" to help alert your readers: ;-), :), ©

DISLCAIMER STATEMENT

Course content may vary from the outline to meet the needs of this particular group. Table of Contents

Academic Services

ONLINE LIBRARY RESEARCH CENTER & LEARNING RESOURCES

The Online Library Resource Center is available to enrolled students and faculty from inside the electronic campus. This is your starting point for access to online books, subscription periodicals, and Web resources that are designed to support your classes and generally not available through search engines on the open Web. In addition, the Center provides access to special learning resources, which the University has contracted to assist with your studies. Questions can be directed to <u>orc@apus.edu</u>.

- **Charles Town Library and Inter Library Loan:** The University maintains a special library with a limited number of supporting volumes, collection of our professors' publication, and services to search and borrow research books and articles from other libraries.
- *Electronic Books:* You can use the online library to uncover and download over 50,000 titles, which have been scanned and made available in electronic format.
- *Electronic Journals:* The University provides access to over 12,000 journals, which are available in electronic form and only through limited subscription services.
- **Turnitin.com:** <u>Turnitin.com</u> is a tool to improve student research skills that also detect plagiarism. Turnitin.com provides resources on developing topics and assignments that encourage and guide students in producing papers that are intellectually honest, original in thought, and clear in expression. This tool helps ensure a culture of adherence to the University's standards for intellectual honesty. Turnitin.com also reviews students' papers for matches with Internet materials and with thousands of student papers in its database, and returns an Originality Report to instructors and/or students.
- Tutor.com: Tutoring is available through the library portal using the <u>www.tutor.com</u> service.

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Selected Bibliography

Websites (for additional reading, research, and information):

Firefighting News Main Site: http://firefightingnews.com/united-states.cfm Firehouse Magazine: http://www.firehouse.com National Fire Protection Association Main Site: http://www.nfpa.org National Fire Sprinkler Association Main Site: http://www.nfsa.org National Institute of Occupational Safety and Health (NIOSH) Main Page: http://www.cdc.gov/niosh/homepage Fire Specific: http://www.cdc.gov/niosh/firehome.html National Institute of Standards and Technology Main Site: http://www.nist.gov Building and Fire Research Library: http://www.brfl.nist.gov **United States Fire Administration** Main site: http://www.usfa.dhs.gov/ Publications: http://www.usfa.dhs./publications Technical Reports: http://www.usfa.dhs.gov/publications/techreps.cfm **United States Forest Service** Main Site: http://www.fs.fed.us United States National Records and Archives Administration, **Government Printing Office, Code of Federal Regulations**

Main Site: <u>http://www.gpoaccess.gov/cfr/index.html</u>

Women in the Fire Service

Main Site: http://www.wfsi.org/

Texts and References:

- -----Automatic Sprinkler Systems Handbook. National Fire Protection Association. 2007
- -----Automatic Sprinkler Standpipe Systems. National Fire Protection Association. 2006.
- Brannigan, Francis. *Building Construction for the Fire Service*, Third Edition. National Fire Protection Association. 1992
- Canter, David; Editor. *Fires and Human Behavior*, Second Edition. David Fulton Publishers, Ltd. London. 1990. ISBN 1-85346-105-9
- Cote, Arthur E. *Fundamentals of Fire Protection*. National Fire Protection Association. 2004
- Cote, Ron and Greg Harrison, *NFPA Life Safety Code Handbook*. National Fire Protection Association. 2006
- -----Designer's Guide to Automatic Sprinkler Systems. National Fire Protection Association.. 2005
- -----Facility Manager's Fie Protection Guide. National Fire Protection Association. 2006.

------ Fire Alarm Signaling Systems. National Fire Protection Association.2007.

- -----Fire Protection Engineering. National Fire Protection Association. 2002.
- ----- *Fire Protection Handbook*, 14th Edition. National Fire Protection Association. 2003
- ------ Health Care Facilities Handbook. National Fire Protection Association. 2005
- Levy, Matthys and Mario Salvatdore. *Why Buildings Fall Down How Structures Fail*. W. W. Norton. New York. 1994.
- ------ National Fire Alarm Code Handbook, NFPA 72. National Fire Protection Association.2007.
- -----Principles of Fire Protection. National Fire Protection Association. 1988
- Salvadore, Mario. Why Buildings Stand Up The Strength of Architecture. W.W. Norton. 2002. ISBN 0 -393-30676-3
- Solomon, Robert E. Editor. *Fire and Life Safety Inspection Manual*. National Fire Protection Association. 2002
- ------Uniform Fire Code Handbook. National Fire Protection Association. 2006

The following **codes and standards** developed and maintained by the National Fire Protection Association would be among those of value to the Fire Officer active in this field:

- NFPA 1 Uniform Fire Code
- NFPA 12 Carbon Dioxide Fire Systems
- NFPA 12A Halon 1301 Fire Extinguishing Systems
- NFPA 13 Installation of Sprinkler Systems
- NFPA 14 Installation of Standpipe and Hose Systems
- NFPA 15 Water Spray Fixed Systems for Fire Protection
- NFPA 16 Installation of Foam-Water Sprinkler and Foam-Water Spray Systems
- NFPA 17 Dry Chemical Extinguishing Systems
- NFPA 17A Wet Chemical Extinguishing Systems
- NFPA 18 Wetting Agents
- NFPA 20 Installation of Stationary Pumps for Fire Protection
- NFPA 99 Health Care Facilities
- NFPA 101 Life Safety Code

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