

STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

American Public University System

The Ultimate Advantage is an Educated Mind

**School of Public Safety and Health
Course FSMT 475
Three Credit Hours**

Application of Fire Research

Eight Week Course Study

Prerequisites: None

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Instructor Information

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Course Description (Catalog)

This course examines tools and techniques of rational decision making in fire departments, including databases, statistics, probability, decision analysis, utility modeling, resource allocation, cost-benefit analysis, and linear programming.

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Course Scope

The scope of this eight week course the rationale for conducting fire research, various fire protection research activities, and research applications, including fire test standards and codes structural fire safety, automatic detection and suppression, life safety, and fire fighter health and safety.

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Course Objectives (LO)

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After successfully completing this course, you will be able to

- LO-1: Consider what research is and why we study it in Fire Science.
- LO-2: Locate, evaluate and analyze fire-related research.
- LO-3: Demonstrate the application of fire research to a research problem related to one of the course topics.
- LO-4: Conduct a literature review of current literature on a fire-related topic.
- LO-5: Define fire-related research objectives.
- LO-6: Write a fire-related research proposal.
- LO-7: Design a research plan using one or more qualitative/quantitative or mixed methods methodologies.
- LO-8: Observe the rules for ethical research.
- LO-9: Summarize research findings using an abstract, executive summary, and technical

Course Delivery Method

reports to support your findings.

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This course delivered via distance learning will enable students to complete academic work in a flexible manner, completely online. Course materials and access to an online learning management system will be made available to each student. Online assignments are due by Sunday evening of the week as noted and include Forum questions (accomplished in groups through a threaded forum), examination, and individual assignments submitted for review by the Faculty Member). Assigned faculty will support the students throughout this eight-week course.

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Course Resources

Required Course Textbooks

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Gunderston, M. and J. Lindsey. (2011). *Applications of fire research and improvement*. Upper

Saddle River, NJ: Pearson. ISBN: 978-0-13-502737-0

Required Readings

Web sites and weekly lesson power point presentations

Additional Resources

As assigned by your Instructor

Web Sites

In addition to the required course texts, the following public domain web sites are useful. Please abide by the university's academic honesty policy when using Internet sources as well. Note web site addresses are subject to change.

Site Name	Web Site URL/Address
National Institute of Standards and Technology	www.nist.gov
National Fire Protection Association	www.nfpa.org
National Fire Data Center/US Fire Administration	http://www.docstoc.com/docs/6060828/U-S-Fire-Administration-National-Fire-Data-Center-Fire
Underwriters Laboratories	http://www.ul.com/global/eng/pages/
Fire Research and Management and Exchange System	http://frames.nbii.gov/portal/server.pt?open=512&objID=205&pageID=0&cached=true&mode=2
Fire.gov	http://www.nist.gov/fire/

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Fire Research Institute	http://fireresearchinstitute.org/
Fire Research Laboratory	http://www.atf.gov/press/releases/2009/12/122309-atf-fire-research-laboratory.html
The Institution of Fire Engineers	http://www.ife.org.uk/

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Evaluation Procedures

Reading Assignments:

There are reading assignments each week from the required text and articles of interest. Check the syllabus and the announcements at the start of the course and at the start of each week.

Supplemental Readings:

Supplemental readings will be offered in the Forum and included in the Resources Section.

Forum Assignments:

There is a Forum assignment in each of the 8 weeks of the course. Each week, you will be asked to comment on a topic proposed by your instructor and to respond to at least one other student. Forum posts are carefully composed statements supported by citations from the literature. This is NOT a chat room. Posts should be directed to the issues posed by the instructor and the posts of other students. I require APA source referencing for all quotes and paraphrased materials.

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Pay particular attention to the Week 1 Introduction Post. It is a 250-word introduction containing your specific learning goals for this course in addition to your brief bio. Forum posts are due by Sunday night, midnight, with replies to other students no later than Wednesday of the following week. Be certain to review the Forums often and regularly to capture the discussion among class members.

Homework Assignments:

Homework consists of reading, researching, written assignments and reviewing the instructor feedback on your work. All written assignments must adhere to APA 6th Edition style guidance and must be submitted by Sunday midnight to receive full credit.

Exams/Quizzes:

Exams are listed in the syllabus and available to you in the Test & Quizzes tab.

Field Experience Assignments:

As assigned by your instructor or as necessary for your development.

Final Project:

Please see your final project description in your Assignments area.

Grade Distribution

Graded Work	Points
Writing Assignments 50 %	
Homework Assignment 1	100
Homework Assignment 2	100
Homework Assignment 3	100

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Homework Assignment 4	100
Homework Assignment 5	100
Homework Assignment 6	100
Homework Assignment 7	100
Mid-Term 10 %	
Mid-Term Exam	200
Forums 25%	
Forum Post 1 – Introduction	100
Forum Post 2	100
Forum Post 3	100
Forum Post 4	100
Forum Post 5	100
Forum Post 6	100
Forum Post 7	100
Final Project 15%	
Final Project:	300
Total	1900

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8 – Week Course Outline

Please see the [Student Handbook](#) to reference the University's [grading scale](#). All Forum and Written Weekly Assignments are detailed in the Forum and in the Assignments tabs. Follow the directions for each Forum post and written assignments. Both are graded and required.

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<u>Week</u>	<u>Topic</u>	<u>Learning Objectives</u>	<u>Readings</u>	<u>Assignment</u>
1	Introduction to Fire Research	LO-1: Consider what research is and why we study it in Fire Science. LO-2: Locate, evaluate and analyze fire-related research.	<p>Text Readings: Gunderson, Chapters 1 & 11-</p> <p>Lesson 1: lecture presentations</p> <p>Website: Explore these two websites to become familiar with their contributions to fire research. www.nist.gov www.nfpa.org</p>	Forum Post #1 Assignment #1
2	Reviewing the Literature	LO-1: Consider what research is and why we study it in Fire Science. LO-2: Locate, evaluate and analyze fire-related research. LO-4: Conduct a literature review of current literature on a fire-related topic.	<p>Text Readings: Gunderson, Chapters 2</p> <p>Lesson 2: lecture presentations</p> <p>Website: Explore these websites to appreciate the value of on-line resources available to fire science professionals. http://www.docstoc.com/docs/6060828/U-S-Fire-Administration-National-Fire-Data-Center-Fire</p>	Forum Post #2 Assignment #2

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			http://www.ul.com/global/en/g/pages/	
3	The Research Experience Performance Management and Process Improvement	LO-3: Demonstrate the application of fire research to a research problem related to one of the course topics.	<p>Text Readings: Gunderson, Chapters 3-4</p> <p>Lesson 3: lecture presentations</p> <p>Websites: Explore these websites for ideas about possible research topics for you Final Project.</p> <p>http://frames.nbii.gov/portal/server.pt?open=512&objID=205&PageID=0&cached=true&mode=2</p> <p>http://www.nist.gov/fire/</p>	Forum Post #3 Assignment #3
4	Analyzing Results	LO-5: Define fire-related research objectives.	<p>Text Readings: Gunderson, Chapter 5</p> <p>Lesson 4: lecture presentations</p>	Forum Post #4 Assignment #4
5	The Research Process	LO-7: Design a research plan using one or more	<p>Text Readings: Gunderson, Chapter 6-7</p> <p>Lesson 5: lecture presentations</p>	Forum Post #5 Assignment #5

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		qualitative/quantitative or mixed methods methodologies.		Mid-Term Exam
6	Qualitative, Quantitative and Mixed Methods Research	LO-7: Design a research plan using one or more qualitative/quantitative or mixed methods methodologies.	Text Readings: Gunderson, Chapters 8 Lesson 6: lecture presentations	Forum Post #6 Assignment #6
7	Ethics and Reporting Your Research Findings	LO-8: Observe the rules for ethical research.	Text Readings: Gunderson, Chapter 9-10 Lesson 7: lecture presentations	Forum Post #7 Assignment #7

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8	Publishing Research	LO-6: Write a fire-related research proposal. LO-9: Summarize research findings using an abstract, executive summary, and technical reports to support your findings.	Text Readings: No assigned text readings this week. Recommend review Appendix B.	Final Project Due Forum Post #8 - Not graded; this is your forum to discuss what you have learned about why we do fire research.
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Policies

Policies

Please see the [Student Handbook](#) to reference all University policies. Quick links to frequently asked question about policies are listed below.

Please see Policy tabs within the Sakai classroom for easy access to policy information.

Writing Expectations

All writing in the course should adhere to APA 6th Edition style guidelines and should be proofread to avoid errors in spelling and grammar.

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Citation and Reference Style

Attention Please: Students will follow the APA 6th Edition available through the LINK/Library tab and at <http://www.apus.edu/Online-Library/tutorials/apa.htm> as the sole citation and reference style used in written work submitted as part of coursework to the University. Assignments completed in a narrative essay or composition format must follow the citation style cited in the APA 6th Edition publication manual.

Late Assignments

Students are expected to submit classroom assignments by the posted due date and to complete the course according to the published class schedule. As adults, students, and working professionals, I understand you must manage competing demands on your time. Should you need additional time to complete an assignment, please contact me before the due date so we can discuss the situation and determine an acceptable resolution. Routine submission of late assignments is unacceptable and may result in points deducted from your final course grade. The best way to contact your instructor is to use the Messages Section inside the classroom.

Netiquette

Online universities promote the advancement of knowledge through positive and constructive debate – both inside and outside the classroom. Forums 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 rewards and excitement of learning which does not include descent to personal attacks or student attempts to stifle the Forum 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 Sakai 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.

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

Disclaimer Statement

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

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Online Library

The Online Library 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 Online Library provides access to special learning resources, which the University has contracted to assist with your studies. Questions can be directed to librarian@apus.edu.

- **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.
- **Tutor.com:** AMU and APU Civilian & Coast Guard students are eligible for 10 free hours of tutoring provided by APUS. Tutor.com connects you with a professional tutor online 24/7 to provide help with assignments, studying, test prep, resume writing, and more. Tutor.com is tutoring the way it was meant to be. You get expert tutoring whenever you

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need help, and you work one-to-one with your tutor in your online classroom on your specific problem until it is done.

- ***Tutor.com can be accessed through the online library:*** [TryTutor.com](https://www.trytutor.com)
- **Tutor.com** is an award-winning online homework help and learning service that connects students to a certified tutor for one-on-one help. Get help with homework, studying, projects, essay writing, and test prep in every subject, including algebra, statistics, chemistry, physics, social studies, and English. There are thousands of academic and career services resources—worksheets, practice problems, videos in every subject, as well as financial literacy tips. They are available 24/7 so you can access them whenever you need extra help.

Request a Library Guide for your course (<http://apus.libguides.com/index.php>)

The AMU/APU Library Guides provide access to collections of trusted sites on the Open Web and licensed resources on the Deep Web. The following are specially tailored for academic research at APUS:

- Program Portals contain topical and methodological resources to help launch general research in the degree program. To locate, search by department name, or navigate by school.
- Course Lib-Guides narrow the focus to relevant resources for the corresponding course. To locate, search by class code (e.g., SOCI111), or class name.

If a guide you need is not available yet, please email the APUS Library: librarian@apus.edu.

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Turnitin.com

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Faculty **may** require assignments be submitted to Turnitin.com. Turnitin.com will analyze a paper and report instances of potential plagiarism for the student to edit before submitting it for a grade. In some cases professors may require students to use Turnitin.com. Typically the course professor will establish a Turnitin.com access code for his/her classes. If the code has not been established, those who wish to use Turnitin.com may ask their professor to establish the code.

Selected Bibliography

See bibliography from our text.

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