

EL CAMINO COLLEGE
FIRE & EMERGENCY TECHNOLOGY DEPARTMENT

Fire Technology 5, Fundamentals of Fire Behavior & Combustion Section # 7580

Mondays 9:30 to 12:40 pm Room: T/A 255 Fall 2014

Capt. Kevin Huben, L.A.Co.F.D 310-660-3593 ext. 3619
e-mail khuben@elcamino.edu

TEXTBOOKS: Firefighting Strategies & Tactics, 3rd Edition
Angle, Delmar Publishing, 2015
Optional: Workbook for Firefighting Strategies & Tactics
Angle, Delmar Publishing, 2015

Grading Criteria: Quizzes	100 Points
Mid-Term Exam	100 Points
Final Exam	100 Points
<u>Term Paper</u>	<u>100 Points</u>
Total	400 Points

Letter Grade 'A'	360-400 Points
Letter Grade 'B'	320-359 Points
Letter Grade 'C'	280- 319 Points
Letter Grade 'D'	240- 279 Points
Letter Grade 'F'	239 & Below

The midterm exam will cover the material given to date in the class. The material will include information from the textbook, reference material, handouts, lectures, overheads, powerpoint slides, cd/dvd's and video tapes. The final exam is comprehensive and will cover all the material in the class from the beginning. You must maintain a 70% average in all 4 point areas to successfully complete the class.

The assigned reading is to be done prior to the class meeting. At the end of each chapter are 'Case Study' and 'Review' questions. These questions are actually your 'take home' quizzes. The review questions from the end of each assigned chapter are to be turned in at the beginning of the class in which we will be covering the material.

Attendance: On time attendance is required. College attendance policies relating to 16 week classes allow for only 1 full absence before you may be dropped from the class (reference 2014-2015 College Catalog, Section 1, "Attendance During Semester"). Being late (up to 15 minutes) twice constitutes 1 absence. Being late in excess of 30 minutes constitutes 1 absence. Please adhere to the attendance policy.

Term Paper: One of the requirements to successfully complete this class involves the completion of a term paper / research project. The term paper must be a college-level report at least 5 pages in length not including the index or bibliography. Please refer to the separate handouts relative to term-paper specifics, including both contents and format.

The use of electronic devices such as cell phones, text messaging, pagers, camera phones or other devices are not allowed while class is in session. Not only do these devices distract from your ability to concentrate on the information being presented, their usage is also a distraction for those students around you. Please refrain from using these devices while in class.

Disability Statement: Students with disabilities who believe they may need accommodations in this class are encouraged to contact the Special Resources Center here on campus as soon as possible to better ensure such accommodations are implemented in a timely fashion. You may contact the Special Resources Center at 310-660-3593, ext. 3295 or ext. 3296. You may also contact me privately to discuss your specific needs.

Office Hours: Instructor office hours will be announced the first week of class.

Student Learning Outcomes:

Upon the successful completion of this class the student will be able to:

- Identify the terms and concepts related to fire behavior
- Identify the 5 basic sections of the ICS system
- Identify the 3 physical states of matter and their physical properties

Academic Honesty: Students are expected to comply with Board Policy 5500, Section I and Academic Policy 5520 Section A, as it relates to academic honesty. These sections cover, but are not limited to: cheating, plagiarism and theft of exam material. Please see the instructor if you have any questions.

Course Overview: This course discusses the theory and fundamentals of how and why fires start, spread and are controlled as well as in-depth study of fire chemistry and physics, fire characteristics of materials extinguishing agents and fire control techniques.

FUNDAMENTALS OF FIRE BEHAVIOR AND COMBUSTION
CLASS MEETING SCHEDULE

DATE	SUBJECT	READING ASSIGNMENT
Aug. 25	Introduction / Registration / Etc.	
Sept. 1	LABOR DAY	<u>NO CLASS</u>
Sept. 8	History / Firefighter Safety	Ch. 1 & 2
Sept. 15	ICS / Coord. & Control	Ch. 3 & 4
Sept. 22	Bldg. Constr. / Fire Dynamics	Ch. 5 & 6
Sept. 29	Pre-Incid. Plan. / Exting. Agents	Ch. 7 & 8
Oct. 6	Built-in F.P. / Company Op's	Ch. 9 & 10
Oct. 13	<u>Mid-Term Examination</u>	
Oct. 20	Single Family Dwellings	Ch. 11
Oct. 27	Apartments / Multi-Family	Ch. 12
Nov. 3	Commercial	Ch. 13
Nov. 10	VETERANS DAY	<u>NO CLASS</u>
Nov. 17	Assembly	Ch. 14
Nov. 24	High-Rise / Vehicle Fires <u>TERM PAPERS DUE</u>	Ch. 15 & 16
Dec. 1	Wildland, Special Fires & After Incid. Rev.'s Review for Final Exam	Ch. 17, 18 & 19
Dec. 8	<u>Final Examination</u>	

Assignments and quizzes may need minor adjustments to accommodate subject matter coverage.

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FTEC 5, FUNDAMENTALS OF FIRE BEHAVIOR AND COMBUSTION
TERM PAPER GUIDELINES

The term paper assigned for this class is a requirement that must be completed in order for you to successfully complete this class.

You will be asked to select an incident that was of interest to you. This may be a fire, hazardous materials incident, plane crash, technical rescue or other incident.

You are to research the incident to the best of your ability including newspaper or magazine articles, internet-related information, news footage or archived information on VHS tapes, CD's, DVD's, social media, etc.

Another aspect of the information is for you to visit the fire station that responded to the incident, preferably the station that the primary initial response. Interview those that were either on the incident or someone who remembers it and can give you some details. You need to interview at least one person at the rank of Captain so you get a perspective of not only what their crew did, but also that of the overall incident.

After you have gathered all the information, prepare a typewritten, college-level paper of at least 5 pages in length. In the course of writing about the incident, include the tactics taken by the responding personnel such as offensive, defensive, protect-in-place, etc. Compare what they did with what you have learned in class from the textbook, lectures and audio-visual supplements.

Include a bibliography with all of the appropriate references and sources of information that you used. Remember that you need at least 3 references.

This should be a positive learning experience for you, especially the fire station visit where you can discuss what went down.

Have fun, good luck and if you have any questions, please ask the instructor.

TERM PAPERS ARE DUE **MONDAY, NOVEMBER 24th, 2014**

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TERM PAPER FORMAT GUIDELINES

MARGINS: They should not be greater than 1 ½ inches. Exceptions can be made for the title page, introduction, conclusion and bibliography.

FONTS: They should be size **12** unless otherwise specified. Cover page and table of contents may be exceptions.

SPACING: Lines should be double-spaced.

TITLE PAGE: Center the title of the paper one-third from the top of the page.
Suggest size **16** font **bolded**.
Double-space and center your name below the title.
Double-space and center the course title below your name.

INTRODUCTION: This must be at least ½ page long. Describe your ‘game plan’.
Tell us why you have chosen this fire-related project and introduce us to what the main body of the paper is going to tell us.

CONTENT: This must be a minimum of 3 pages long, preferably 5 pages if you received a lot of information.

CONCLUSION: This part must be at least ½ page long. Summarize what the project was about and describe how the project has assisted you towards your goal of becoming a firefighter.

PICTURES: Must be included. At least take a picture of yourself in front of the fire station, apparatus or with those that you spoke with if it entailed a station visit. Other classes may require more photo documentation.

BIBLIOGRAPHY: Must have a minimum of 3 references. Your textbook may be used as one of them. Make sure the format of your references is proper – they differ for textbooks, magazines, internet, interviews etc.

BINDER / OUTER COVER: Optional. For some classes that have extensive photo documentation as part of the project, you may need a sleeve to hold the cd/dvd of your photos.

Please refer to the formal term paper formatting books/references that were suggested to you at the beginning of the course. The purpose of this document is only to give you insight as to what the instructor will be looking for in the term paper at the time of grading.

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FIRE & EMERGENCY TECHNOLOGY 5

FIRE BEHAVIOR/COMBUSTION/CONTROL

TERM PAPER SUBJECT REQUEST FORM

I, _____ request to write my term paper on the following incident:

INCIDENT TYPE/DESCRIPTION:

LOCATION (CITY/AREA): _____

APPROX. DATE OF INCIDENT: _____

JURISDICTIONAL FIRE STATION: _____

CONTACT NAME: _____

CONTACT NUMBER: _____

STUDENT CONTACT NUMBER: _____

APPROVED: _____

DATE: _____

**THIS FORM IS DUE BACK TO THE INSTRUCTOR NO
LATER THAN MONDAY SEPTEMBER 15, 2014**

