

Basic Course Information

Semester:	Fall 2018	Instructor Name:	Salvador Flores
Course Title & #:	Fire 104 - Fire Behavior & Combustion CRN 11485	Email:	sal.flores@imperial.edu
CRN #:		Webpage (optional):	
Classroom:	Online	Office #:	By appointment
Class Dates:	August 19 - Dec 07	Office Hours:	By appointment
Class Days:	Online	Office Phone #:	
Class Times:	Online	Emergency Contact:	760-427-0012
Units:	3		

Course Description

This course is based on the content in the NFPA manual Principles Of Fire Behavior AND Combustion 4th Edition.

The course meets or exceeds the requirements of the Fire and Emergency Services Higher Education (FESHE) *Fire Behavior*.

Course Prerequisite(s) and/or Corequisite(s)

The student must be able to navigate themselves through Canvas and be knowledgeable on the basics of a computer or mobile device (which ever platform being used to take the course).

The student is highly recommended to have taken basic math (pre-algebra) and college level English.

This is a standalone course and no other fire knowledge is required.

Student Learning Outcomes

5. Define basic terms and concepts related to fire behavior and chemistry.(ILO2),
6. Analyze physical conditions which determine states of matter and influence fire behavior. (ILO2)
7. Demonstrate how to recall physical and chemical properties of fire.(ILO4)

Course Objectives

In addition to putting fires out, fire fighters also need to understand fire behavior in order to manage the fire scene and minimize risks to life and property. The book covered in this course will give us a comprehensive grasp of how fires start and spread, informed decisions on how to best control and extinguish fires cannot be made.

The student will also be able to:

Define basic terms and concepts related to fire behavior and chemistry.

Identify states of matter and describe chemical processes associated with combustion.

Analyze physical conditions which determine states of matter and influence fire behavior.

Describe fire suppression agents and their properties.

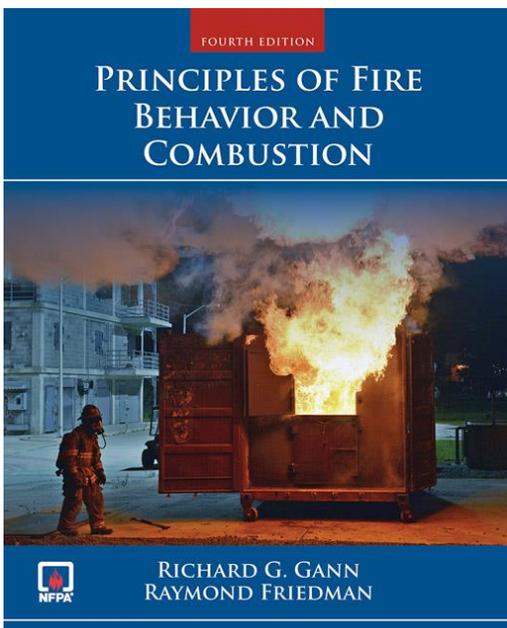
Compare and contrast methods and techniques of fire suppression

Textbooks & Other Resources or Links

Principles of Fire of Fire Behavior and Combustion Fourth Edition

Richard G. Gann & Raymond Friedman

ISBN 978-0-7637-5717-5



Course Requirements and Instructional Methods

Out of Class Assignments: The Department of Education policy states that one (1) credit hour is the amount of student work that reasonably approximates not less than one hour of class time and two (2) hours of out-of-class time per week over the span of a semester. WASC has adopted a similar requirement.

Course Grading Based on Course Objectives

Discussion Boards (10pts x 12modules) 120 Points Total: (Points Complete a one paragraph entry. The entry should be an overview of the main points of the chapter and closely related to the instructions posted on each board. There are two extra Discussion Boards in case you missed a discussion and don't want to miss out on points. The first Discussion Board includes a self-introduction component so that students get to know each other. The final week includes a student analysis of the course. This board is aimed at summarizing what the student took from this course.)

Quizzes (5pts x 12modules) 60 Points Total

Maximum points you can earn for Midterm = 60

Maximum points you can earn for Final = 60

Maximum points you can earn for case studies = 60

Maximum points you can earn for discussions= 140

+ 20 extra points (Ice breaker discussion and video introduction)

Total Points Possible = 300 total + 20 extra points = 320 max.

Chapter Quizzes & Discussions Due Date (ALL Standard Pacific Time) at 11:59pm

* **Orientation Quiz (10 points)** & self-introduction board (5pts) August 19th, 11:59pm

*Chapter 1 quiz (5 points) & discussion board (10 points) August 26th, 11:59pm

* Chapter 2 quiz (5 points) & discussion board (10 points) September 2nd, 11:59 pm

*Chapter 3 quiz (5 points) & discussion board (10 points) September 9th, 11:59pm

*Chapter 4 quiz (5 points) & discussion board (10 points) September 16th, 11:59pm

* Chapter 5 quiz (5 points) & discussion board (10 points) September 23rd, 11:59pm

*Chapter 6 quiz (5 points) & discussion board (10 points) September 30th, 11:59m

Mid Term (60 points) & case study (30 points) October 7th, 11:59pm

*Chapter 7 quiz (5 points) & discussion board (10 points) October 14th, 11:59pm

*Chapter 8 quiz (5 points) & discussion board (10 points) October 21st, 11:59pm

*Chapter 9 quiz (5 points) & discussion board (10 points) October 28th, 11:59pm

*Chapter 10 quiz (5 points) & discussion board (10 points) November 4th, 11:59pm

*Chapter 11quiz (5 points) & discussion board (10 points) November 11th, 11:59pm

*Chapter 12quiz (5 points) & discussion board (10 points) November 18th, 11:59pm

*Chapter 13quiz (5 points) & discussion board (10 points) December 2nd, 11:59pm

*Final (60 points), case study (30 points) & discussion board (5 points) . **Dec 7th**, , 11:59pm

Attendance

- A student who fails to attend the first meeting of a class or does not complete the first mandatory activity of an online class will be dropped by the instructor as of the first official meeting of that class. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. It is the student's responsibility to drop or officially withdraw from the class. See [General Catalog](#) for details.
- Regular attendance in all classes is expected of all students. A student whose continuous, unexcused absences exceed the number of hours the class is scheduled to meet per week may be dropped. For online courses, students who fail to complete required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.
- Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences.

Classroom Etiquette

- Electronic Devices: Cell phones and electronic devices must be turned off and put away during class, unless otherwise directed by the instructor.
- Food and Drink are prohibited in all classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Please comply as directed by the instructor.
- Disruptive Students: Students who disrupt or interfere with a class may be sent out of the room and told to meet with the Campus Disciplinary Officer before returning to continue with coursework. Disciplinary procedures will be followed as outlined in the [General Catalog](#).
- Children in the classroom: Due to college rules and state laws, only students enrolled in the class may attend; children are not allowed.

Online Netiquette

- What is netiquette? Netiquette is internet manners, online etiquette, and digital etiquette all rolled into one word. Basically, netiquette is a set of rules for behaving properly online.
- Students are to comply with the following rules of netiquette: (1) identify yourself, (2) include a subject line, (3) avoid sarcasm, (4) respect others' opinions and privacy, (5) acknowledge and return messages promptly, (6) copy with caution, (7) do not spam or junk mail, (8) be concise, (9) use appropriate language, (10) use appropriate emoticons (emotional icons) to help convey meaning, and (11) use appropriate intensifiers to help convey meaning [do not use ALL CAPS or multiple exclamation marks (!!!)].

Academic Honesty

Academic honesty in the advancement of knowledge requires that all students and instructors respect the integrity of one another's work and recognize the important of acknowledging and safeguarding intellectual property.

There are many different forms of academic dishonesty. The following kinds of honesty violations and their definitions are not meant to be exhaustive. Rather, they are intended to serve as examples of unacceptable academic conduct.

- Plagiarism is taking and presenting as one's own the writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to "cite a source" correctly, you must ask for help.
- Cheating is defined as fraud, deceit, or dishonesty in an academic assignment, or using or attempting to use materials, or assisting others in using materials that are prohibited or inappropriate in the context of the academic assignment in question.

Anyone caught cheating or plagiarizing will receive a zero (0) on the exam or assignment, and the instructor may report the incident to the Campus Disciplinary Officer, who may place related documentation in a file. Repeated acts of cheating may result in an F in the course and/or disciplinary action. Please refer to the [General Catalog](#) for more information on academic dishonesty or other misconduct. Acts of cheating include, but are not limited to, the following: (a) plagiarism; (b) copying or attempting to copy from others during an examination or on an assignment; (c) communicating test information with another person during an examination; (d) allowing others to do an assignment or portion of an assignment; (e) using a commercial term paper service.

Additional Student Services

Imperial Valley College offers various services in support of student success. The following are some of the services available for students. Please speak to your instructor about additional services which may be available.

- **CANVAS LMS.** Canvas is Imperial Valley College's main Learning Management System. To log onto Canvas, use this link: [Canvas Student Login](#). The [Canvas Student Guides Site](#) provides a variety of support available to students 24 hours per day. Additionally, a 24/7 Canvas Support Hotline is available for students to use: 877-893-9853.
- **Learning Services.** There are several learning labs on campus to assist students through the use of computers and tutors. Please consult your [Campus Map](#) for the [Math Lab](#); [Reading, Writing & Language Labs](#); and the [Study Skills Center](#).
- **Library Services.** There is more to our library than just books. You have access to tutors in the [Study Skills Center](#), study rooms for small groups, and online access to a wealth of resources.

Disabled Student Programs and Services (DSPS)

Any student with a documented disability who may need educational accommodations should notify the instructor or the [Disabled Student Programs and Services \(DSP&S\)](#) office as soon as possible. The DSP&S office is located in Building 2100, telephone 760-355-6313. Please contact them if you feel you need to be evaluated for educational accommodations.

Student Counseling and Health Services

Students have counseling and health services available, provided by the pre-paid Student Health Fee.

- **Student Health Center.** A Student Health Nurse is available on campus. In addition, Pioneers Memorial Healthcare District provide basic health services for students, such as first aid and care for minor illnesses. Contact the IVC [Student Health Center](#) at 760-355-6128 in Room 1536 for more information.

- **Mental Health Counseling Services.** Short-term individual, couples, family and group counseling services are available for currently enrolled students. Services are provided in a confidential, supportive, and culturally sensitive environment. Please contact the IVC Mental Health Counseling Services at 760-355-6310 or in the building 1536 for appointments or more information..

Veteran's Center

The mission of the [IVC Military and Veteran Success Center](#) is to provide a holistic approach to serving military/veteran students on three key areas: 1) Academics, 2) Health and Wellness, and 3) Camaraderie; to serve as a central hub that connects military/veteran students, as well as their families, to campus and community resources. Their goal is to ensure a seamless transition from military to civilian life. The Center is located in Building 600 (Office 624), telephone 760-355-6141.

Extended Opportunity Program and Services (EOPS)

The Extended Opportunity Program and Services (EOPS) offers services such as priority registration, personal/academic counseling, tutoring, book vouchers, and community referrals to qualifying low-income students. EOPS is composed of a group of professionals ready to assist you with the resolution of both academic and personal issues. Our staff is set up to understand the problems of our culturally diverse population and strives to meet student needs that are as diverse as our student population.

Also under the umbrella of EOPS our CARE (Cooperative Agency Resources for Education) Program for single parents is specifically designed to provide support services and assist with the resolution of issues that are particular to this population. Students that are single parents receiving TANF/Cash Aid assistance may qualify for our CARE program, for additional information on CARE please contact Lourdes Mercado, 760-355- 6448, lourdes.mercado@imperial.edu.

EOPS provides additional support and services that may identify with one of the following experiences:

- Current and former foster youth students that were in the foster care system at any point in their lives
- Students experiencing homelessness
- Formerly incarcerated students

To apply for EOPS and for additional information on EOPS services, please contact Alexis Ayala, 760-355-5713, alexis.ayala@imperial.edu.

Student Equity Program

- The Student Equity Program strives to improve Imperial Valley College's success outcomes, particularly for students who have been historically underrepresented and underserved. The college identifies strategies to monitor and address equity issues, making efforts to mitigate any disproportionate impact on student success and achievement. Our institutional data provides insight surrounding student populations who historically, are not fully represented. Student Equity addresses disparities and/or disproportionate impact in student success across disaggregated student equity groups including gender, ethnicity, disability status, financial need, Veterans, foster youth, homelessness, and formerly

incarcerated students. The Student Equity Program provides direct supportive services to empower students experiencing insecurities related to food, housing, transportation, textbooks, and shower access. We recognize that students who struggle meeting their basic needs are also at an academic and economic disadvantage, creating barriers to academic success and wellness. We strive to remove barriers that affect IVC students' access to education, degree and certificate completion, successful completion of developmental math and English courses, and the ability to transfer to a university. Contact: 760.355.5736 or 760.355.5733 Building 100.

- The Student Equity Program also houses IVC's Homeless Liaison, who provides direct services, campus, and community referrals to students experiencing homelessness as defined by the McKinney-Vento Act. Contact: 760.355.5736 Building 100.

Student Rights and Responsibilities

Students have the right to experience a positive learning environment and to due process of law. For more information regarding student rights and responsibilities, please refer to the IVC [General Catalog](#).

Information Literacy

Imperial Valley College is dedicated to helping students skillfully discover, evaluate, and use information from all sources. The IVC [Library Department](#) provides numerous [Information Literacy Tutorials](#) to assist students in this endeavor.

Anticipated Class Schedule/Calendar

Module	Dates	Module Topic for the week	Chapter in Text book
week 1	August	Syllabus / Orientation on Canvas (see links on Home Page)	
	13-19		
Week 2	20-26	Fire Measurements	One
Week 3	August-Sept	Chemical Elements	Two
	27-2		
Week 4	3-9	Physical and Chemical Change	Three
Week 5	10-16	Flow in Fluids	Four
Week 6	17-23	Heat Transfer	Five
Week 7	24-30	Combustion, Fire, and Flammability	Six
Week 8	October	Mid Term Week	
	1-7		
Week 9	8-14	Fire Characteristics: Gaseous Combustibles	Seven
Week 10	15-21	Fire Characteristics: Liquid Combustibles	Eight
Week 11	22-28	Fire Characteristics: Solid Combustibles	Nine
Week 12	Oct-Nov	Combustion Products	Ten
	29-4		
Week 13	5-11	Smoke and Heat Hazards	Eleven

Week 14	12-18	Fire Fighting Chemicals	Twelve
Week 15	19-25	Vacation	
Week 16	Nov-Dec	Computational Modeling of Fires	Fourteen
	26-2		
Week 17	3-8	Finals - Essay	