

Basic Course Information

Semester:	Spring	Instructor Name:	Salvador Flores
Course Title & #:	Fire Protection Equipment & Systems	Email:	sal.flores@imperial.edu
CRN #:	Fire 102	Webpage (optional):	www.imperial.edu/students/canvas/
Classroom:	Online	Office #:	By appointment
Class Dates:	Feb 13,2023 – Jun 09, 2023	Office Hours:	By appointment
Class Days:	Online	Office Phone #:	
Class Times:	Online	Emergency Contact:	760-427-0012
Units:	3		

Course Description

[Required language: Use from [CurricUNET](#) course outline of record.]

This course provides information relating to the features of design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection, and portable fire extinguishers.

This is one of six CORE courses required for an associate degree in Fire Technology. (CSU)

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

[Required language: Use from [CurricUNET](#) course outline of record.]

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.

Upon course completion, the successful student will have acquired new skills, knowledge, and or aptitudes as demonstrated by being able to:

1. Analyze the relationship between fire prevention efforts and the reduction of life and property loss. (ILO2, IL05)
2. Draw and describe the basic elements of a public water supply system including sources, distribution networks, piping and hydrants. (ILO2, ILO3)
3. Identify the components of sprinkler, standpipe and foam systems. (ILO2, ILO4)
4. Identify five different types of non-water based fire suppression systems and describe how these systems extinguish fire (ILO2, ILO4)
5. Describe fire protection systems in various structures and the history of sprinkler ordinances and legislation. (ILO2)
6. Describe the components of a fire alarm system and different types of detectors and
7. Explain the operation and application of portable fire extinguishing systems. (ILO2, ILO3)
8. Identify and analyze the causes of line of duty firefighter deaths and training and research into the reduction of risk and accidents. (ILO2, ILO3, ILO4)

Student Learning Outcomes

[Required language: Use from [CurricUNET](#) course outline of record.]

Upon satisfactory completion of the course, students will be able to:

1. Demonstrate a working knowledge of fire cause and effect, including hazards of materials, building construction, and heat and smoke control with an overall exam score of 70%.
2. Demonstrate a working knowledge of portable fire extinguishers, including description and classification, effectiveness rating, distribution, installation, and the application, operation, inspection, and maintenance of various types with an overall exam score of 70%.
3. Demonstrate a working knowledge of the characteristic of protection systems and equipment for special hazards with an overall score of 70%.
4. Demonstrate a working knowledge of public and private water supplies, equipment, and services for fire protection with an overall exam score of 70%.
5. Demonstrate a working knowledge of sprinkler protection, including types of systems, installation requirements, hazards and installation conditions, exposure protection, plans review procedure, inspection and testing procedures, and residential systems with an overall exam score of 70%.
6. Demonstrate a working knowledge of protective signaling systems with an overall exam score of 70%.
7. Demonstrate a working knowledge of standpipe systems with an overall exam score of 70%.
8. Demonstrate a working knowledge of heat and smoke control systems with an overall exam score of 70%.
9. Participate in the following and receive an overall score of 70%: Within a given scenario, analyze, prepare, and present a fire protection system that demonstrates complete coverage with regards to sprinkler, hood and duct, and special application protection of the following: A). Residential B). Commercial C). Industrial D). School

Course Objectives

[Required language: Use from [CurricUNET](#) course outline of record.]

In addition to architects, engineers, and design professionals, fire fighters also need to understand fire protection systems in order to manage the fire scene and minimize risks to life and property.

Fire Protection Systems, Second Edition provides a comprehensive overview of the various types of fire protection systems, their operational abilities and characteristics, and their applications within various types of structures.

This Course covers:

- Water supply basics, including sources, distribution networks, piping, and hydrants.
- Active fire protection systems and components, their operational characteristics, and installation, inspection, testing, and maintenance requirements.
- Passive fire protection systems such as firewalls, fire separation assemblies, and fire dampers
- Smoke control and management systems, gas-based suppression, access and egress control systems, and the code requirements for installation of these systems.

Textbooks & Other Resources or Links

[Required Information: Describe which textbooks and/or other resources are required for the course. Take textbook information from [CurricUNET](#) or list. Be sure to include ISBN number.]

Fire Protection Systems

by A. Maurice Jones Jr.

- Publisher: Jones & Bartlett Learning
- Print ISBN: 9781284035377, 1284035379
- E-Text ISBN: 9781284055498, 1284055493
- Edition: 2nd

Course Requirements and Instructional Methods

[Required Information: Provide detailed information related to types of class activities, assignments, tests, homework, etc. Online and Hybrid courses must demonstrate compliance with the IVC [Regular and Effective Contact Policy for Distance Education](#).]

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

[Required Information: Provide detailed information related to grading practices and grading scale, including values and totals. Consider adding final grade calculation, rubrics, late assignment policy, and other grading practices.]

Quizzes (5pts x 14modules) 70 Points Total

Discussion Boards (10pts x 14modules) 140 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.

Weekly Chapter Quizzes & Discussions Due Date (ALL Standard Pacific Time) **due Sunday of that week at 11:59pm**

*Week 1 - Intro (5pts)

*Week 2 - Chapter 1 quiz (5 points) & discussion board (10 points)

* Week 3 - Chapter 2 quiz (5 points) & discussion board (10 points)

*Week 4 - Chapter 3 quiz (5 points) & discussion board (10 points)

*Week 5 - Chapter 4 quiz (5 points) & discussion board (10 points)

*Week 6 - Chapter 5 quiz (5 points) & discussion board (10 points)

*Week 7 - Chapter 6 quiz (5 points) & discussion board (10 points)

Week 8 - Mid Term (60 points) & case study (20 points) & Fire Protection Systems Project 1/2 (10 points)

*Week 9 - Chapter 7 quiz (5 points) & discussion board (10 points)

*Week 10 - Chapter 8 quiz (5 points) & discussion board (10 points)

*Week 11 - Chapter 9 quiz (5 points) & discussion board (10 points)

*Week 12 - Chapter 10 quiz (5 points) & discussion board (10 points)

*Week 13 - Chapter 11 quiz (5 points) & discussion board (10 points)

*Week 14 - Chapter 12 quiz (5 points) & discussion board (10 points)

*Week 15 - Chapter 13 quiz (5 points) & discussion board (10 points)

*Week 16 - Final (60 points), case study (20 points) & Fire Protection Systems Project 1/2 (10 points)

Maximum points you can earn for Midterm = 60

Maximum points you can earn for Final = 60

Maximum points you can earn for quizzes = 70

Maximum points you can earn for case studies = 40

Maximum points you can earn for Projects = 20

Maximum points you can earn for discussions= 140

Total Points Possible = 390 total

Attendance

[Required Information: The below information is the IVC attendance policy. Use this information in addition to any specific attendance policies you have for your course.]

- 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

[Required Information: Describe your policies regarding classroom conduct. The below is suggested language and may be modified for your course.]

- 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

[Required Information for web-enhanced, hybrid and online courses: Describe your policies regarding netiquette. The below is suggested language and may be modified for your course.]

- 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

[Required language.]

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

[Suggested Language.]

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)

[Required language.]

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

[Required language.]

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

[Required language.]

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)

[Required language.]

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

[Required language.]

- 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

[Required language.]

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

[Required language.]

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

[Required Information – Discretionary Language and Formatting: The instructor will provide a tentative, provisional overview of the readings, assignments, tests, and/or other activities for the duration of the course. A table format may be useful for this purpose.]

<u>Week</u>	<u>Activity, Assignment and Evaluations</u>	<u>Due Dates</u>
1 Feb-11 to Feb-17	Introductions, Policies and Syllabus Video introduction Assignment Self introduction Discussion Board (Post)	Due by Sunday 23:00hrs

2 Feb-18 to Feb-24	Reading Chapter 1 (p.5-18) PPT 1 Quiz Discussion Board (Post and Reply)	Due by Sunday 23:00hrs
3 Feb-25 to Mar-3	Reading Chapter 2 (p.21-32) PPT 2 Quiz Discussion Board (Post and Reply)	Due by Sunday 23:00hrs
4 Mar-4 to Mar-10	Reading Chapter 3 (p.39-70) PPT 3 Quiz Discussion Board (Post and Reply)	Due by Sunday 23:00hrs
5 Mar-11 to Mar-17	Reading Chapter 4 (p.77-95) PPT 4 Quiz Discussion Board (Post and Reply)	Due by Sunday 23:00hrs
6 Mar-18 to Mar-24	Reading Chapter 5 (p.103-104) PPT 5 Quiz Discussion Board (Post and Reply)	Due by Sunday 23:00hrs
7 Mar-25 to Mar-31	Reading Chapter 6 (p.146-165) PPT 6 Quiz Discussion Board (Post and Reply)	Due by Saturday 23:00hrs
8 Apr-1-to April-7	Mid Term Test Fire Protection Systems Project 1/2 Case Study Essay	Due by Sunday 23:00hrs
9 Apr-8 to Apr-14	Reading Chapter 7 (p.170-213) PPT 7 Quiz Discussion Board (Post and Reply)	Due by Sunday 23:00hrs
10 Apr-15 to Apr-21	Reading Chapter 8 (p.220-221) PPT 8 Quiz Discussion Board (Post and Reply)	Due by Sunday 23:00hrs
11 Apr-29 to May-5	Reading Chapter 9 (p.244-262) PPT 9 Quiz Discussion Board (Post and Reply)	Due by Sunday 23:00hrs
12 May-6 to May-12	Reading Chapter 10 (p.263-282) PPT 10 Quiz Discussion Board (Post and Reply)	Due by Sunday 23:00hrs

<p>13 May-13 to May-19</p>	<p>Reading Chapter 11 (p.283-299) PPT 11 Quiz Discussion Board (Post and Reply)</p>	<p>Due by Sunday 23:00hrs</p>
<p>14 May-20 to May-26</p>	<p>Reading Chapter 12 (p.302-316) PPT 12 Quiz Discussion Board (Post and Reply)</p>	<p>Due by Sunday 23:00hrs</p>
<p>15 May-27 to Jun-2</p>	<p>Reading Chapter 13 (p.317-334) PPT 13 Quiz Discussion Board (Post and Reply)</p>	<p>Due by Sunday 23:00hrs</p>
<p>16 Jun-3 to Jun-7</p>	<p>Final Quiz Final Project 2/2 Case Study Essay</p>	<p>Due by Sunday 23:00hrs</p>

*****Tentative, subject to change without prior notice*****