

## Associate of Science Degree: Financial Services

Courses Required for the Major:		Units
BANK 100	Introduction to Financial Services	3
BANK 102	Mortgage Brokerage and Banking	4
BANK 103	Introduction to Investments	3
ACCT 116A	Financial Accounting	4
BUSE 101	Business Mathematics	3
BUSE 119	Business Communications	3
BUSE 120	Principles of Money Management	3

**Select at least six units from the following:**

ACCT 120	Federal Income Tax	3
ACCT 121	California Income Tax	1
BUSE 150	Human Relations in Business	3
BUSE 155	Managing the Small Business	3
BUSE 201	Business Organization and Management	3
MARK 100	Principles of Marketing	3
REAL 101	Real Estate Principles	3
REAL 115	Real Estate Finance	3

**Total Units = 29**

For graduation requirements, see **Requirements for the Associate Degree** on page 88.

**Electives as needed to meet minimum of 60 units required for the degree.**

# Fire Protection Technology

## Fire – Emergency Medical – Lifeguards

Award Type	Units
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**Certificate of Performance:**

Seasonal Ocean Lifeguard	10.5
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**Certificate of Achievement:**

Company Officer Certification	21.5–24
Fire Prevention	22.9– 23.2
Entry Level Firefighter	36.2–38.5
Open Water Lifeguard	18

**Associate of Science Degree:**

Company Officer Certification	21.5–24*
Fire Prevention	19.5*
Entry Level Firefighter	36.2–38.5*
Open Water Lifeguard	18*
Occupational/Technical Studies (see page 223)	18*

\* and courses to meet graduation requirements, general education and electives as needed to meet the minimum of 60 units required for the degree.

## Program Description

The Fire Protection Technology program offers degrees and certificates in a number of fields associated with the technology of fire protection, rescue, and public safety. The program provides theory and training necessary for successful performance in a variety of settings and positions. Emphasis is placed on modern methods of fire prevention, fire suppression, fire service management, open water lifeguarding, and public safety.

It is highly recommended for EntryLevelFirefighter students to concentrate on starting with the EMT certification courses and FIPT 101. Once certified as an EMT, students can choose either the full-time Regional Fire Academy offered at Heartland (January - May) or the Alternate Firefighter 1 academy courses offered in a flexible format on campus. Students attending the Alternative Academy on Campus should take FIPT 150A and 110A during the first 8-week session, FIPT 150B, 150C, 150D the second 8-week session and the FIPT 322B, 324A, 322C and 323B either during the semester if schedule allows or during Intersession/ Summer. FIPT 381G Skills Review and Certification

will be offered during January and June annually. Students who complete the required Fire Academy Training are eligible to participate in the FIPT 381G Skills Review and Certification exam to meet Firefighter I Exam requirements for State Fire Training. Students who successfully complete the requirements for the SFT Firefighter I Exam are eligible for the International Fire Service Accreditation Congress (IFSAC) Seal.

### **San Diego City Basic Firefighter I Academy**

The San Diego City Fire Department trains firefighter recruits in a 16-week, 13 unit Fire Academy that is operated in conjunction with Miramar College. In each Fire Academy, usually four to six recruits are selected by a lottery system from a pool of qualified applicants. These “Open Enrollee” students earn no salary while in the Academy. To be eligible for the Open Enrollee lottery, applicants must be on the current San Diego Fire Department eligibility list and have a current Candidate Physical Ability Test (CPAT) card by the start of the academy.

### **Regional Firefighter I Academy**

The Regional Firefighter I Fire Academy trains re-employment students in a 14-week, 10.5 unit California State Fire Marshal (CSFM), Accredited Fire Academy that is operated in conjunction with Miramar College. Students must meet the following requirements to be eligible to attend:

1. Possess a valid San Diego County EMT 1A and CPR card at the time of application; (EMGM 105A).
2. Complete California Specialized Training Institute (CSTI) Hazmat First Responder Operations (FRO) with Weapons of Mass Destruction (WMD); (FIPT 323B).
3. Complete Confined Space Awareness (FIPT 322B).

Students must complete FIPT 381G Firefighter I Academy Skills Review and Certification at the conclusion of the Regional Firefighter I Academy located in El Cajon.

### **Fire Academy Alternate Delivery Option (On Campus Fire Academy)**

The Miramar Fire Technology program offers an alternate option for students to earn their Firefighter I Certification required for Entry Level Employment without attending the traditional 16-week Fire Academy. While we still recommend the Fire

Academy for the quickest and most direct route, this alternative option may be appealing to you.

Students who are seeking the same qualifications can take ALL of the courses listed under the Alternate Fire Academy plan. These 10 course modules, along with the Required Degree courses may be taken at anytime and outside of the order recommended on the list with the exception of FIPT 150A, 150B, 150C, 150D and FIPT 381G. Students must complete the FIPT 381G Skills Review and Certification course which will be offered January and June. The course is two weeks long and requires full attendance. The FIPT 381G course includes the State Fire Training Written and Skills Exam for Structure, Wildland and Hazardous Materials meeting the IFSAC and ProBoard National Standards. Live Fire Control 3B Certification is provided as an accreditation requirement for Firefighter 1 Certification.

The Certification of Completion and course hours are identical to the traditional Regional Accredited Fire Academy.

### **San Diego County Fire Authority**

In order to be eligible for entry level employment, students must complete FIPT 101, 110A, 150A, 322B, and 323B in addition to EMGM 105A. These courses cover mandatory training requirements to be eligible for employment for most fire departments. The courses also prepare the student to enter a fire academy, depending upon the employer. Successful completion of these courses is required to apply to San Diego County Fire and is highly suggested for entry level students. A full time student may complete all of these in as little as one semester.

### **Firefighter Candidate Testing Center (FCTC)**

The Miramar Fire Technology program is a recognized Candidate Physical Ability Test (CPAT) location. Students interested in the CPAT exam may register at [fctconline.org](http://fctconline.org). Miramar hosts eight CPAT exams and the Firefighter Career Expo annually. Candidates may join the statewide firefighter eligibility list from the aforementioned website.

### **CAL FIRE BASIC Firefighter Certification**

In order to be eligible for the CAL FIRE Basic Firefighter Certification, students must complete FIPT 110A, 150A, 150B, 322B, 322C, and 323B. In addition, interested students must pass the CAL FIRE BASIC Firefighter Written Exam and Ladder Exam. The courses also prepare the student to enter

a fire academy, depending upon the employer. Successful completion of these courses is required to apply to San Diego County Fire and is highly suggested for entry level students. A full time student may complete all of these in as little as one semester.

Additional information may be obtained from the program's website: [www.MiramarFireTechnology.com](http://www.MiramarFireTechnology.com)

### Program Learning Outcomes

Students who complete the Fire Protection Technology program will be able to:

- Identify minimum qualifications and entry level skills for firefighter hiring. The student will be able to describe the following elements: application process; written exam process; physical agility exam, oral interview, chief's interview; background investigation; and fire fighter probationary process. Students will identify fire service history, culture and diversity.
- Demonstrate the ability to analyze, appraise and evaluate fire and emergency incidents and identify components of emergency management and fire fighter safety including: Size-up, report on conditions, Incident Command System; RECEO; 10 Standard Firefighting Orders; 18 Situations that Shout "Watch Out"; and common factors associated with injuries and line of duty deaths.
- Identify and comprehend laws, regulations, codes and standards that influence fire department operations, and identify regulatory and advisory organizations that create and mandate them, especially in the areas of fire prevention, building codes and ordinances, and firefighter health and safety.
- Analyze the causes of fire, determine extinguishing agents and methods, differentiate the stages of the fire and fire development, and compare methods of heat transfer.
- Calculate flow requirements for fire apparatus, diagram a pump and plumbing schematic for fire apparatus, and apply mathematic formulae to hydraulics problems.
- Identify and describe the apparatus used in the fire service, and the equipment and maintenance of fire apparatus and equipment.

- Identify and describe common types of building construction and conditions associated with structural collapse and firefighter safety. Differentiate between fire detection and fire suppression systems. Student will design and diagram a wet and dry fire protection system, and identify alarm system components and their operations.

### Career Options

Some of the many career opportunities in the field of firefighting/lifeguarding include:

- Firefighter
- Fire Insurance Inspector
- Fire Investigator
- Fire Protection Engineer
- Fire Protection Systems Installer
- Emergency Medical Services Provider
- Hazardous Materials Technician
- Lifeguard

Faculty	Office	Telephone/Email
Darren Hall	R-1 108 F	619-388-7969 dmhall@sdccd.edu
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### Certificate of Performance: Seasonal Ocean Lifeguard\*

Courses Required for the Major:	Units
EMGM 105A Emergency Medical Technician – National Registry	7
FIPT 160 Introduction to Open Water Lifeguarding	3
FIPT 365 All Terrain Vehicle Operations – Lifeguards	0.5
<b>Total Units = 10.5</b>	

\*A Certificate of Performance is a departmental award that does not appear on the student's transcript. All courses must be completed within the San Diego Community College District.

**Note:** This program is not eligible for federal financial aid in accordance with Federal regulations.