Fire Science Technology AS Major - Active

Department: Administration of Justice and Fire Science

Approval: March 2013

Students completing the Fire Science Technology Major will be eligible for career positions such as Firefighter, Fire Prevention Specialist, Wildland Firefighter, Fire Investigator, Fore Engineer, Fire Hydraulics, 1st Responder, Emergency Medical Technician, and Life Safety Directors in High Rise Buildings.

Learning Outcomes

Upon completion of this program, students will be able to:

- Identify minimum qualifications and entry-level skills for fire fighter hiring.
- Demonstrate the ability to analyze, appraise and evaluate fire and emergency incidents and identify components of emergency management and fire fighter safety.
- Identify and comprehend laws, regulations, codes and standards that influence fire department operations.
- 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.
- 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.
- Describe the Interface Zone (I-Zone) in wildland fire, describe the parts of a wildland fire, use of resources on a wildland fire, differentiate between strike teams and task forces, utilize the Incident Command System in a wildland fire situation, describe safety concerns to firefighters in wildland fire situation.
- Explain the operation of a Fire Prevention Bureau in a fire department.
- Describe a fire prevention program, implement a fire prevention plan in areas such as public buildings, commercial buildings, schools, and multi-family residences;

Students must complete six of the core courses at CCSF.

Assuming students start this AS with transfer-level math and English eligibility, the minimum time for completion is 4 semesters. Completion time will vary based on student preparation and number of units completed per semester.

Courses Required for the Major in Fire Science Technology AS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>Core courses:</td>
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<tr>
<td>F SC 50 - Introduction to Fire Science</td>
<td>3.00</td>
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<tr>
<td>F SC 52A - Fire Protection Equipment &amp; Systems</td>
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<tr>
<td>F SC 53 - Building Construction for Fire Protection</td>
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<tr>
<td>F SC 55 - Wildland Fire Control</td>
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<tr>
<td>F SC 57 - Principles of Fire and Emergency Services: Safety and Survival</td>
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<tr>
<td>F SC 61A - Introduction to Fire Prevention</td>
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<tr>
<td>F SC 64 - Fire Behavior and Combustion</td>
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<td><strong>Total:</strong></td>
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<tr>
<td>Elective courses: Choose 3 units from the following:</td>
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<tr>
<td>F SC 51A - Fire Tactics and Strategy</td>
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<tr>
<td>F SC 62 - Rescue Practices</td>
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<tr>
<td>F SC 105A - Fire Training Work Experience</td>
<td>1.00</td>
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<tr>
<td>or</td>
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<tr>
<td>F SC 105B - Fire Training Work Experience</td>
<td>1.00</td>
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<td>or</td>
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<tr>
<td>F SC 105C - Fire Training Work Experience</td>
<td>2.00</td>
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<td>or</td>
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<td>Course Code</td>
<td>Course Title</td>
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</tr>
<tr>
<td>F SC 105D</td>
<td>Fire Training Work Experience</td>
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<tr>
<td>or</td>
<td>F SC 105E - Fire Training Work Experience</td>
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<tr>
<td>F SC 111</td>
<td>Firefighter One Academy</td>
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<tr>
<td>LBCS 94D</td>
<td>Labor Relations in America</td>
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<td></td>
<td><strong>Total:</strong></td>
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</tbody>
</table>

**Total:** **27.00**

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