



Academic Certificate in Fire Prevention and Investigation (CER.3144)

At Bucks County Community College, we use course-level assessment to determine student achievement of program of study goals, which represent the skills, knowledge, abilities, and behaviors that employers expect of program graduates. A series of courses prepares students for employment by providing preparation, practice, and opportunities to show mastery of these program of study goals. Each course is developed around a number of learning goals, known as course goals, that support a student’s growing mastery of program of study goals. Faculty members assess each student’s mastery of each program of study goal through specific assessments that students are required to complete in the courses. Each assessment is scored using criteria specific to the program of study goal being assessed.

Program Measure for Standard of Success:

- 75% or more of students will be successful in meeting the assessment criteria for each course-level assessment.

Program Goal #1 - Demonstrate an understanding of fire dynamics, flame spread, and incident investigation, plus the technical, legal, and social aspects of arson;

| Course # | Aligned course goal (must match current Master Course Outline) | Percentage Successful | Meets Standard |
|----------|---|---------------------------------|----------------|
| FRSC-206 | #3 – Student will identify key case law decisions that have affected fire investigations | Fall 2019: 100% successful | YES |
| FRSC-206 | #9 – Student will describe the process of conducting investigations using the scientific method | Fall 2019: 100% successful | YES |
| FRSC-216 | #1 – Student will explain the rule of law as it pertains to arrest, search and seizure | Spring 2020: 100% successful | YES |

Program Goal #2 - Demonstrate and apply the fundamental skills associated with fire protection, prevention, and investigation, such as scientific methods of inquiry and reasoning;

| Course # | Aligned course goal (must match current Master Course Outline) | Percentage Successful | Meets Standard |
|----------|--|---|----------------|
| FRSC-104 | #7 – Student will prepare fire and life safety inspection reports thoroughly documenting building, fire, and life safety concerns, including the occupancy classification, building size, description of use, and calculate the occupancy loads, exit capacities, and travel distances, referencing appropriate codes. | Data collection scheduled for Spring 2022 | |



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| FRSC-105 | #6 – Student will explain the basic components of a fire alarm system, identify the different types of detectors, and explain how they detect fire | Data collection scheduled for Spring 2022 | |
| FRSC-206 | #9 – Student will describe the process of conducting investigations using the scientific method | Fall 2019: 100% successful | YES |
| FRSC-216 | #2 – Student will interpret a fire scene | Data collection scheduled for Spring 2022 | |

Program Goal #3 - Evaluate fire behavior and building construction as it related to firefighter safety, building codes, and fire prevention;

| Course # | Aligned course goal (must match current Master Course Outline) | Percentage Successful | Meets Standard |
|----------|--|---|----------------|
| FRSC-103 | #1 – Student will describe building construction as it relates to firefighter safety, building codes, fire prevention, code inspection, firefighting strategy, and tactics. | Data collection scheduled for Spring 2024 | |
| FRSC-104 | #4 – Student will describe and explain fire/life safety inspection practices and procedures, including the functions, responsibilities, role, and importance of fire prevention and code enforcement system. | Data collection scheduled for Spring 2024 | |
| FRSC-104 | #7 – Student will prepare fire and life safety inspection reports thoroughly documenting building, fire, and life safety concerns, including the occupancy classification, building size, description of use, and calculate the occupancy loads, exit capacities, and travel distances, referencing appropriate codes. | Data collection scheduled for Spring 2024 | |

Program Goal #4 - Apply safety codes and proper procedures for the transportation and storage of hazardous materials.

| Course # | Aligned course goal (must match current Master Course Outline) | Percentage Successful | Meets Standard |
|----------|--|---|----------------|
| FRSC-104 | #7 – Student will prepare fire and life safety inspection reports thoroughly documenting building, fire, and life safety concerns, including the occupancy classification, building size, description of use, and calculate the occupancy loads, exit capacities, and travel distances, referencing appropriate codes. | Data collection scheduled for Spring 2024 | |
| FRSC-104 | #8 – Student will identify appropriate codes and their relationship to other requirements for the built environment. | Data collection scheduled for Spring 2024 | |



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NOTE: Only students who participate in the course-level assessment are included in the calculation of the percentage successful. These results are incomplete due to a program re-alignment and new assessment plan starting in the Academic Year of Fall 2019.