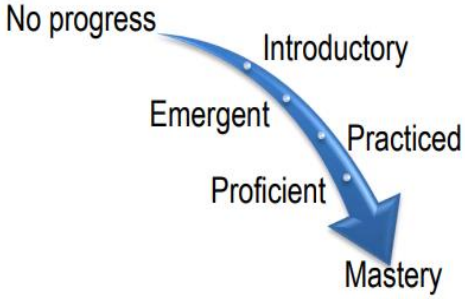
Purdue Global presents this data in compliance with the requirements of the International Fire Service Accreditation Congress (IFSAC).

Associate of Applied Science in Fire Science

At Purdue Global, we employ a method called **Course-Level Assessment**, or CLA, to determine student mastery of Course Outcomes. Through CLA, we measure how well students gain 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 outcomes. Each course is developed around a number of learning goals, known as course outcomes that support a student's growing mastery of program level outcomes. Faculty members assess each student's mastery of each course outcome through Course Level Assessments.



Program Measure for Standard of Success:

- 75% or more of students attempting the outcome will perform at the **Emergent** level or greater in **100/200** level courses
- 75% or more of students attempting the outcome will perform at the **Emergent** level or greater in **300/400** level courses

Associate of Applied Science in Fire Science Program Outcome Information for 2023–2024 Academic Year

AASFS-1 Program Outcomes

Fire Foundational Firefighter Skills: Discuss the importance of building construction as it relates to firefighter safety, building codes, and fire prevention.

Measurement	Assessment/Evaluation Results: % at or greater than Standard	Meets Criteria Yes/No
Apply the standards of building construction, as well as building and fire codes, to firefighter safety.	FS102-5 = 89%	Yes

Measurement	Assessment/Evaluation Results: % at or greater than Standard	Meets Criteria Yes/No
Define the basic codes and regulations related to building construction projects.	FS102-2 = 93%	Yes
Explain the various types of construction materials in order to describe the dangers posed to firefighters.	FS102-3 = 97%	Yes
Explain the concepts of fire service hydraulics and water supply.	FS103-1 = 100%	Yes
Describe the principles of various water systems.	FS103-2 =97%	Yes
Discuss fire stream tactics and principles.	FS103-3 = 90%	Yes
Identify community fire flow demands and water supplies.	FS103-4 = 95%	Yes
Apply methods of pumping operations given the current incident or situation.	FS103-5 = 89%	Yes
Describe the basic elements of a public water supply system.	FS104-1 = 88%	Yes
Describe development of fire safety codes, inspection procedures, and enforcement.	FS105-3 = 100%	Yes
Explain how fire protection services are organized.	FS202-4 = 100%	Yes
Identify the components of response safety plans, pre-incident planning procedures, and training safety policies.	FS204-3 = 100%	Yes
Describe the difference between fire resistance and flame spread, and the testing procedures used to establish ratings for each.	FS299-2 = 100%	Yes

AASFS-2 Program Outcomes

Knowledge Base: Describe the difference between the resistance and flame spread, and the testing procedures used to establish ratings for each.

Measurement	Assessment/Evaluation Results: % at or greater than Standard	Meets Criteria Yes/No
Identify the types of fire spread.	FS101-3 = 88%	Yes
Interpret and explain the factors that have an effect on the energy release rate.	FS101-5 = 85%	Yes
Describe the role fire gases play in the development and spread of fire.	FS101-4 = 80%	Yes
Describe the basic elements of a public water supply system.	FS104-1 = 88%	Yes
Illustrate various types of fire protection systems.	FS104-2 = 88%	Yes
Discuss extinguishment methods and effective use of clean agent systems.	FS104-3 = 96%	Yes
Define the functions, proper inspection, testing, and maintenance requirements of a fire alarm system.	FS104-4 = 96%	Yes
Describe how the role of the fire service administration, with regard to fire prevention, works in municipal government.	FS105-4 = 100%	Yes
Describe the difference between fire resistance and flame spread, and the testing procedures used to establish ratings for each.	FS299-2 = 100%	Yes

AASFS-3 Program Outcomes

Psychology: Discuss the issues that deal with the psychological effects of fire dynamics.

Measurement	Assessment/Evaluation Results: % at or greater than Standard	Meets Criteria Yes/No
Explain heat flux as well as its implications in the danger of fire heat transfer.	FS101-2 = 90%	Yes
Explain the history of health and safety programs for emergency service agencies.	FS204-1 = 100%	Yes
Describe occupational health and safety programs utilized in emergency services.	FS204-5 = 88%	Yes
Discuss the issues that deal with the psychological effects of fire dynamics.	FS299-3 = 97%	Yes

Associate of Applied Science in Fire Science Program Outcome Information for 2022–2023 Academic Year

AASFS-1 Program Outcomes

Fire Foundational Firefighter Skills: Discuss the importance of building construction as it relates to firefighter safety, building codes, and fire prevention.

Measurement	Assessment/Evaluation Results: % at or greater than Standard	Meets Criteria Yes/No
Apply the standards of building construction, as well as building and fire codes, to firefighter safety.	FS102-5 = 89%	Yes

Measurement	Assessment/Evaluation Results: % at or greater than Standard	Meets Criteria Yes/No
Define the basic codes and regulations related to building construction projects.	FS102-2 = 96%	Yes
Explain the various types of construction materials in order to describe the dangers posed to firefighters.	FS102-3 = 96%	Yes
Explain the concepts of fire service hydraulics and water supply.	FS103-1 = 100%	Yes
Describe the principles of various water systems.	FS103-2 = 100%	Yes
Discuss fire stream tactics and principles.	FS103-3 = 100%	Yes
Identify community fire flow demands and water supplies.	FS103-4 = 100%	Yes
Apply methods of pumping operations given the current incident or situation.	FS103-5 = 100%	Yes
Describe the basic elements of a public water supply system.	FS104-1 = 98%	Yes
Describe development of fire safety codes, inspection procedures, and enforcement.	FS105-3 = 100%	Yes
Explain how fire protection services are organized.	FS202-4 = 96%	Yes
Identify the components of response safety plans, pre-incident planning procedures, and training safety policies.	FS204-3 = 100%	Yes
Describe the difference between fire resistance and flame spread, and the testing procedures used to establish ratings for each.	FS299-2 = 100%	Yes

AASFS-2 Program Outcomes

Knowledge Base: Describe the difference between the resistance and flame spread, and the testing procedures used to establish ratings for each.

Measurement	Assessment/Evaluation Results: % at or greater than Standard	Meets Criteria Yes/No
Identify the types of fire spread.	FS101-3 = 91%	Yes
Interpret and explain the factors that have an effect on the energy release rate.	FS101-5 = 77%	Yes
Describe the role fire gases play in the development and spread of fire.	FS101-4 = 94%	Yes
Describe the basic elements of a public water supply system.	FS104-1 = 98%	Yes
Illustrate various types of fire protection systems.	FS104-2 = 91%	Yes
Discuss extinguishment methods and effective use of clean agent systems.	FS104-3 = 91%	Yes
Define the functions, proper inspection, testing, and maintenance requirements of a fire alarm system.	FS104-4 = 83%	Yes
Describe how the role of the fire service administration, with regard to fire prevention, works in municipal government.	FS105-4 = 100%	Yes
Describe the difference between fire resistance and flame spread, and the testing procedures used to establish ratings for each.	FS299-2 = 100%	Yes

AASFS-3 Program Outcomes

Psychology: Discuss the issues that deal with the psychological effects of fire dynamics.

Measurement	Assessment/Evaluation Results: % at or greater than Standard	Meets Criteria Yes/No
Explain heat flux as well as its implications in the danger of fire heat transfer.	FS101-2 = 87%	Yes
Explain the history of health and safety programs for emergency service agencies.	FS204-1 = 100%	Yes
Describe occupational health and safety programs utilized in emergency services.	FS204-5 = 100%	Yes
Discuss the issues that deal with the psychological effects of fire dynamics.	FS299-3 = 97%	Yes

Associate of Applied Science in Fire Science Program Outcome Information for 2021–2022 Academic Year

AASFS-1 Program Outcomes

Fire Foundational Firefighter Skills: Discuss the importance of building construction as it relates to firefighter safety, building codes, and fire prevention.

Measurement	Assessment/Evaluation Results: % at or greater than Standard	Meets Criteria Yes/No
Apply the standards of building construction, as well as building and fire codes, to firefighter safety.	FS102-5 = 100%	Yes

Measurement	Assessment/Evaluation Results: % at or greater than Standard	Meets Criteria Yes/No
Define the basic codes and regulations related to building construction projects.	FS102-2 = 100%	Yes
Explain the various types of construction materials in order to describe the dangers posed to firefighters.	FS102-3 = 100%	Yes
Explain the concepts of fire service hydraulics and water supply.	FS103-1 = 100%	Yes
Describe the principles of various water systems.	FS103-2 = 100%	Yes
Discuss fire stream tactics and principles.	FS103-3 = 100%	Yes
Identify community fire flow demands and water supplies.	FS103-4 = 100%	Yes
Apply methods of pumping operations given the current incident or situation.	FS103-5 = 100%	Yes
Describe the basic elements of a public water supply system.	FS104-1 = 96%	Yes
Describe development of fire safety codes, inspection procedures, and enforcement.	FS105-3 = 100%	Yes
Explain how fire protection services are organized.	FS202-4 = 97%	Yes
Identify the components of response safety plans, pre-incident planning procedures, and training safety policies.	FS204-3 = 100%	Yes
Describe the difference between fire resistance and flame spread, and the testing procedures used to establish ratings for each.	FS299-2 = 100%	Yes

AASFS-2 Program Outcomes

Knowledge Base: Describe the difference between the resistance and flame spread, and the testing procedures used to establish ratings for each.

Measurement	Assessment/Evaluation Results: % at or greater than Standard	Meets Criteria Yes/No
Identify the types of fire spread.	FS101-3 = 94%	Yes
Interpret and explain the factors that have an effect on the energy release rate.	FS101-5 = 79%	Yes
Describe the role fire gases play in the development and spread of fire.	FS101-4 = 88%	Yes
Describe the basic elements of a public water supply system.	FS104-1 = 96%	Yes
Illustrate various types of fire protection systems.	FS104-2 = 100%	Yes
Discuss extinguishment methods and effective use of clean agent systems.	FS104-3 = 86%	Yes
Define the functions, proper inspection, testing, and maintenance requirements of a fire alarm system.	FS104-4 = 89%	Yes
Describe how the role of the fire service administration, with regard to fire prevention, works in municipal government.	FS105-4 = 100%	Yes
Describe the difference between fire resistance and flame spread, and the testing procedures used to establish ratings for each.	FS299-2 = 100%	Yes

AASFS-3 Program Outcomes

Psychology: Discuss the issues that deal with the psychological effects of fire dynamics.

Measurement	Assessment/Evaluation Results: % at or greater than Standard	Meets Criteria Yes/No
Explain heat flux as well as its implications in the danger of fire heat transfer.	FS101-2 = 88%	Yes
Explain the history of health and safety programs for emergency service agencies.	FS204-1 = 100%	Yes
Describe occupational health and safety programs utilized in emergency services.	FS204-5 = 100%	Yes
Discuss the issues that deal with the psychological effects of fire dynamics.	FS299-3 = 94%	Yes

Associate of Applied Science in Fire Science Program Outcome Information for 2020–2021 Academic Year

AASFS-1 Program Outcomes

Fire Foundational Firefighter Skills: Discuss the importance of building construction as it relates to firefighter safety, building codes, and fire prevention.

Measurement	Assessment/Evaluation Results: % at or greater than Standard	Meets Criteria Yes/No
Apply the standards of building construction, as well as building and fire codes, to firefighter safety.	FS102-5 = 100%	Yes

Measurement	Assessment/Evaluation Results: % at or greater than Standard	Meets Criteria Yes/No
Define the basic codes and regulations related to building construction projects.	FS102-2 = 98%	Yes
Explain the various types of construction materials in order to describe the dangers posed to firefighters.	FS102-3 = 100%	Yes
Explain the concepts of fire service hydraulics and water supply.	FS103-1 = 100%	Yes
Describe the principles of various water systems.	FS103-2 = 97%	Yes
Discuss fire stream tactics and principles.	FS103-3 = 98%	Yes
Identify community fire flow demands and water supplies.	FS103-4 = 100%	Yes
Apply methods of pumping operations given the current incident or situation.	FS103-5 = 98%	Yes
Describe the basic elements of a public water supply system.	FS104-1 = 100%	Yes
Describe development of fire safety codes, inspection procedures, and enforcement.	FS105-3 = 98%	Yes
Explain how fire protection services are organized.	FS202-4 = 93%	Yes
Identify the components of response safety plans, pre-incident planning procedures, and training safety policies.	FS204-3 = 100%	Yes
Describe the difference between fire resistance and flame spread, and the testing procedures used to establish ratings for each.	FS299-2 = 97%	Yes

AASFS-2 Program Outcomes

Knowledge Base: Describe the difference between the resistance and flame spread, and the testing procedures used to establish ratings for each.

Measurement	Assessment/Evaluation Results: % at or greater than Standard	Meets Criteria Yes/No
Identify the types of fire spread.	FS101-3 = 98%	Yes
Interpret and explain the factors that have an effect on the energy release rate.	FS101-5 = 96%	Yes
Describe the role fire gases play in the development and spread of fire.	FS101-4 = 100%	Yes
Describe the basic elements of a public water supply system.	FS104-1 = 100%	Yes
Illustrate various types of fire protection systems.	FS104-2 = 100%	Yes
Discuss extinguishment methods and effective use of clean agent systems.	FS104-3 = 100%	Yes
Define the functions of a fire alarm system and proper inspection, testing and maintenance requirements.	FS104-4 = 100%	Yes
Describe how the role of the fire service administration, with regard to fire prevention, works in municipal government.	FS105-4 = 100%	Yes
Describe the difference between fire resistance and flame spread, and the testing procedures used to establish ratings for each.	FS299-2 = 97%	Yes

AASFS-3 Program Outcomes

Psychology: Discuss the issues that deal with the psychological effects of fire dynamics.

Measurement	Assessment/Evaluation Results: % at or greater than Standard	Meets Criteria Yes/No
Explain heat flux as well as its implications in the danger of fire heat transfer.	FS101-2 = 98%	Yes
Explain the history of health and safety programs for emergency service agencies.	FS204-1 = 100%	Yes
Describe occupational health and safety programs utilized in emergency services.	FS204-5 = 100%	Yes
Discuss the issues that deal with the psychological effects of fire dynamics.	FS299-3 = 100%	Yes

Associate of Applied Science in Fire Science Program Outcome Information for 2019–2020 Academic Year

AASFS-1 Program Outcomes

Fire Foundational Firefighter Skills: Discuss the importance of building construction as it relates to firefighter safety, building codes, and fire prevention.

Measurement	Assessment/Evaluation Results: % at or greater than Standard	Meets Criteria Yes/No
Apply the standards of building construction, as well as building and fire codes, to firefighter safety.	FS102-5 = 100%	Yes

Measurement	Assessment/Evaluation Results: % at or greater than Standard	Meets Criteria Yes/No
Define the basic codes and regulations related to building construction projects.	FS102-2 = 95%	Yes
Explain the various types of construction materials in order to describe the dangers posed to firefighters.	FS102-3 = 98%	Yes
Explain the concepts of fire service hydraulics and water supply.	FS103-1 = 100%	Yes
Describe the principles of various water systems.	FS103-2 = 100%	Yes
Discuss fire stream tactics and principles.	FS103-3 = 100%	Yes
Identify community fire flow demands and water supplies.	FS103-4 = 100%	Yes
Apply methods of pumping operations given the current incident or situation.	FS103-5 = 100%	Yes
Describe the basic elements of a public water supply system.	FS104-1 = 100%	Yes
Describe development of fire safety codes, inspection procedures, and enforcement.	FS105-3 = 100%	Yes
Explain how fire protection services are organized.	FS202-4 = 83%	Yes
Identify the components of response safety plans, pre-incident planning procedures, and training safety policies.	FS204-5 = 100%	Yes
Describe the difference between fire resistance and flame spread, and the testing procedures used to establish ratings for each.	FS299-2 = 97%	Yes

AASFS-2 Program Outcomes

Knowledge Base: Describe the difference between the resistance and flame spread, and the testing procedures used to establish ratings for each.

Measurement	Assessment/Evaluation Results: % at or greater than Standard	Meets Criteria Yes/No
Identify the types of fire spread.	FS101-3 = 98%	Yes
Interpret and explain the factors that have an effect on the energy release rate.	FS101-5 = 100	Yes
Describe the role fire gases play in the development and spread of fire.	FS101-4 = 84%	Yes
Describe the basic elements of a public water supply system.	FS104-1 = 100%	Yes
Illustrate various types of fire protection systems.	FS104-2 = 100%	Yes
Discuss extinguishment methods and effective use of clean agent systems.	FS104-3 = 100%	Yes
Define the functions of a fire alarm system and proper inspection, testing and maintenance requirements.	FS104-4 = 100%	Yes
Describe how the role of the fire service administration, with regard to fire prevention, works in municipal government.	FS105-4 = 100%	Yes
Describe the difference between fire resistance and flame spread, and the testing procedures used to establish ratings for each.	FS299-2 = 97%	Yes

AASFS-3 Program Outcomes

Psychology: Discuss the issues that deal with the psychological effects of fire dynamics.

Measurement	Assessment/Evaluation Results: % at or greater than Standard	Meets Criteria Yes/No
Explain heat flux as well as its implications in the danger of fire heat transfer.	FS101-2 = 100%	Yes
Explain the history of health and safety programs for emergency service agencies.	FS204-1 = 100%	Yes
Describe occupational health and safety programs utilized in emergency services.	FS204-2 = 100%	Yes
Discuss the issues that deal with the psychological effects of fire dynamics.	FS299-3 = 100%	Yes

Associate of Applied Science in Fire Science Program Outcome Information for 2018–2019 Academic Year

AASFS-1 Program Outcomes

Fire Foundational Firefighter Skills: Discuss the importance of building construction as it relates to firefighter safety, building codes, and fire prevention.

Measurement	Assessment/Evaluation Results: % at or greater than Standard	Meets Criteria Yes/No
Apply the standards of building construction, as well as building and fire codes, to firefighter safety.	FS102-1 = 97%	Yes

Measurement	Assessment/Evaluation Results: % at or greater than Standard	Meets Criteria Yes/No
Define the basic codes and regulations related to building construction projects.	FS102-4 = 100%	Yes
Examine the various types of construction materials in order to describe the dangers posed to firefighters.	FS102-5 = 100%	Yes
Illustrate common problems firefighters face in relation to hydraulics and water supply.	FS103-1 = 100%	Yes
Describe the principles of various water systems.	FS103-2 = 100%	Yes
Contrast water system adequacy with reliability.	FS103-3 = 100%	Yes
Identify community fire flow demands and water supplies.	FS103-4 = 100%	Yes
Apply methods of pumping operations given the current incident or situation.	FS103-5 = 100%	Yes
Discuss fire stream tactics and principles.	FS103-6 = 100%	Yes
Interpret fire suppression and detection systems as presented in building construction plans.	FS104-1 = 100%	Yes
Describe development of fire safety codes, inspection procedures, and enforcement.	FS105-3 = 100%	Yes
Explain how fire protection services are organized.	FS202-2 = 77%	Yes
Identify the components of response safety plans, pre-incident planning procedures, and training safety policies.	FS204-5 = 100%	Yes
Describe the difference between fire resistance and flame spread, and the testing procedures used to establish ratings for each.	FS299-1 = 97%	Yes

AASFS-2 Program Outcomes

Knowledge Base: Describe the difference between the resistance and flame spread, and the testing procedures used to establish ratings for each.

Measurement	Assessment/Evaluation Results: % at or greater than Standard	Meets Criteria Yes/No
Identify the types of fire spread.	FS101-3 = 100%	Yes
Interpret and explain the factors that have an effect on the energy release rate.	FS101-4 = 85%	Yes
Describe the role fire gases play in the development and spread of fire.	FS101-5 = 100%	Yes
Interpret fire suppression and detection systems as presented in building construction plans.	FS104-1 = 100%	Yes
Illustrate various types of fire protection systems.	FS104-2 = 100%	Yes
Discuss extinguishment methods and effective use of clean agent systems.	FS104-3 = 97%	Yes
Define the functions of a fire alarm system and proper inspection, testing and maintenance requirements.	FS104-4 = 100%	Yes
Describe how the role of the fire service administration, with regard to fire prevention, works in municipal government.	FS105-4 = 100%	Yes
Describe the difference between fire resistance and flame spread, and the testing procedures used to establish ratings for each.	FS299-2 = 94%	Yes

AASFS-3 Program Outcomes

Psychology: Discuss the issues that deal with the psychological effects of fire dynamics.

Measurement	Assessment/Evaluation Results: % at or greater than Standard	Meets Criteria Yes/No
Explain heat flux as well as its implications in the danger of fire heat transfer.	FS101-2 = 100%	Yes
Explain the history of health and safety programs for emergency service agencies.	FS204-1 = 100%	Yes
Describe occupational health and safety programs utilized in emergency services.	FS204-2 = 100%	Yes
Describe occupational health and safety programs utilized in emergency services.	FS299-3 = 86%	Yes