

Master Files

Master Assessment Plan

Mission Statement

Lakeland Community College is a Higher Learning Commission (HLC) accredited AQIP Institution.

Below and on the following pages you will find the Program Student Learning Outcomes “Master Assessment Plan” for the Fire Science Technology degree program. On the final two pages you will find the curriculum map for said program.

Fire Safety:

To offer professional level education to meet personnel needs in the fields of fire science, fire fighting, fire prevention, and emergency management; to serve as a leader in advancing professionalism in those fields; and promote effective, efficient fire fighting and emergency management by designing and delivering high quality, initial and continuing education which will prepare pre-service and in-service firefighters for promotional opportunities.

Fire Science Department Outcome Set

Outcome 1

Articulate the five areas of the National Incident Management System (NIMS).

Performance Indicator: 1.1

Define and give examples of preparedness.

▼ Measure: Preparedness

Details/Description:

Acceptable Target: 70%

Ideal Target: 80%

Implementation Plan (timeline):

This performance indicator is scheduled for assessment during the 2018-2019 academic year.

Most Fire Science Technology courses are offered on an alternating basis in a two year cycle.

Key/Responsible Personnel:

Lee Silvi

Performance Indicator: 1.2

Define and give examples of communications and information management.

▼ **Measure:** Communication/Info Mgmt

Details/Description:

Acceptable Target: 70%

Ideal Target: 80%

Implementation Plan
(timeline):

This performance indicator is scheduled for assessment during the 2018-2019 academic year.

Most Fire Science Technology courses are offered on an alternating basis in a two year cycle.

Key/Responsible
Personnel:

Performance Indicator: 1.3

Define and give examples of resource management.

▼ **Measure:** Resource mgmt

Details/Description: 70%

Acceptable Target: 80%

Ideal Target:

Implementation Plan
(timeline):

This performance indicator was last assessed in 2016-2017. As we rotate performance indicators we measure, this will be schedule d for future assessment.

Most Fire Science Technology courses are offered on an alternating basis in a two year cycle.

Key/Responsible
Personnel:

Program Director

Performance Indicator: 1.4

Define and give examples of command and management.

▼ **Measure:** Command/management

Details/Description:

Acceptable Target:

Ideal Target:

Implementation Plan
(timeline):

This performance indicator was last assessed in 2016-2017. As we rotate performance indicators we measure, this will be schedule d for future assessment.

Most Fire Science Technology courses are offered on an alternating basis in a two year cycle.

Key/Responsible
Personnel:

Program Director

Performance Indicator: 1.5

Define and give examples of ongoing management and maintenance.

▼ **Measure:** Ongoing mgmt

Details/Description:

Acceptable Target: 70%

Ideal Target: 80%

Implementation Plan
(timeline):

This performance indicator is scheduled for assessment during the 2018-2019 academic year.

Most Fire Science Technology courses are offered on an alternating basis in a two year cycle.

Key/Responsible
Personnel:

Outcome 2
Describe and distinguish building components and systems.

Performance Indicator: 2.1
Identify various fire alarm systems.

▼ **Measure:** Written test
Program level Direct - Exam

Details/Description:

In FIRE1170 students will be assessed on a written final examination. There are questions directly related to this performance indicator.

Acceptable Target:

Ideal Target:

Implementation Plan
(timeline):

This performance indicator was last assessed in 2016-17. It will be assessed again in 2018-2019.

Most Fire Science Technology courses are offered on an alternating basis in a two year cycle.

Key/Responsible
Personnel:

Lee Silvi

Performance Indicator: 2.2
Identify the major components of various types of fire protection systems.

▼ **Measure:** Written test
Program level Direct - Exam

Details/Description:

In FIRE1170 students will be assessed on a written final examination. There are questions directly related to this performance indicator.

Acceptable Target:

Ideal Target:

**Implementation Plan
(timeline):**

This performance indicator was last assessed in 2016-17. It will be assessed again in 2018-2019.

Most Fire Science Technology courses are offered on an alternating basis in a two year cycle.

**Key/Responsible
Personnel:**

Lee Silvi

Performance Indicator: 2.3

Differentiate between the five major types of building construction to establish strategy tactics for incidents.

▼ **Measure:** Written Test
Program level Direct - Exam

Details/Description:

In FIRE 2280 students will be assessed on a written final exam. There are questions directly related to this performance indicator on the final exam.

Acceptable Target:

Ideal Target:

**Implementation Plan
(timeline):**

This performance indicator was last assessed in 2016-17. It will be assessed again in 2018-2019.

Most Fire Science Technology courses are offered on an alternating basis in a two year cycle.

**Key/Responsible
Personnel:**

Lee Silvi

▼ **Measure:** Written test
Course level Direct - Exam

Details/Description:	In FIRE1290 students will be assessed on a written final examination. There are questions directly related to this performance indicator.
Acceptable Target:	70% class average on the post test
Ideal Target:	80% class average on the post test
Implementation Plan (timeline):	This performance indicator was last assessed in 2017-18. It will be assessed again in 2019-2020. Most Fire Science Technology courses are offered on an alternating basis in a two year cycle.
Key/Responsible Personnel:	Tom Sitz / Mike Kocab

Outcome 3
Choose appropriate strategy, tactics, and methods to successfully manage emergency incidents.

Performance Indicator: 3.1
List strategic goals in priority order for various types of incidents.

▼ **Measure:** Strategic goals

Details/Description:	
Acceptable Target:	
Ideal Target:	
Implementation Plan (timeline):	This performance indicator was last assessed in 2017-18. It will be assessed again in 2019-2020. Most Fire Science Technology courses are offered on an alternating basis in a two year cycle.

Key/Responsible
Personnel:

Lee Silvi

Performance Indicator: 3.2

Analyze and select the appropriate tactics and methods to achieve strategic goals.

▼ **Measure:** Strategy and Tactics
Course level Direct - Other

Details/Description: By the end of the semester, students in FIRE 2340 are expected to be able formulate strategic goals for a hazardous materials incident, and propose appropriate tactics (objectives) to safely and effectively achieve the strategic goals of a mock incident.

Acceptable Target: 70%

Ideal Target: 80%

Implementation Plan (timeline): This performance indicator was last assessed in 2017-18. It will be assessed again in 2019-2020.

Most Fire Science Technology courses are offered on an alternating basis in a two year cycle.

Key/Responsible
Personnel:

Lee Silvi

Outcome 4

Demonstrate and exhibit an understanding of the profession of the fire service.

Performance Indicator: 4.1

Recognize why history and culture have an effect on today's fire service.

▼ **Measure:** History and Culture

Details/Description:

Acceptable Target:

Ideal Target:

**Implementation Plan
(timeline):**

This performance indicator will be scheduled for assessment in the near future.

Most Fire Science Technology courses are offered on an alternating basis in a two year cycle.

**Key/Responsible
Personnel:**

Performance Indicator: 4.2

Exhibit the characteristics of a fire service professional.

▼ **Measure:** Professional characteristics

Details/Description:

Acceptable Target:

Ideal Target:

**Implementation Plan
(timeline):**

This performance indicator was last assessed in 2016-17. It will be assessed again in 2018-2019.

Most Fire Science Technology courses are offered on an alternating basis in a two year cycle.

**Key/Responsible
Personnel:**

Performance Indicator: 4.3

Analyze current issues and develop appropriate solutions that impact the fire science professional.

▼ **Measure:** Current Issues
Course level Direct - Other

Details/Description:	Methods being considered include a short answer essay test question or a brief student report, but as this is a work in progress the exact methodology is subject to change. The final method that is selected will be one that can effectively be used comparatively in both CRNs of this course.
Acceptable Target:	70%
Ideal Target:	80%
Implementation Plan (timeline):	This performance indicator was last assessed in 2016-17. It will be assessed again in 2018-2019. Most Fire Science Technology courses are offered on an alternating basis in a two year cycle.
Key/Responsible Personnel:	Lee Silvi

Performance Indicator: 4.4

Articulate why "Everyone Goes Home" is important to firefighter safety and survival.

▼ **Measure:** Everyone goes home

Details/Description:	
Acceptable Target:	
Ideal Target:	
Implementation Plan (timeline):	This performance indicator was last assessed in 2016-17. It will be assessed again in Spring 2019, in

FIRE 2380.

Most Fire Science Technology courses are offered on an alternating basis in a two year cycle.

Key/Responsible
Personnel:

Lee Silvi

Performance Indicator: 4.5 Fire service manager or administrator

Explain and demonstrate the characteristics of a fire service manager or administrator

▼ **Measure:** Characteristics of a Fire Service Manager
Course level Direct - Other

Details/Description:

This is a work in progress, A method under consideration is a role play for the classroom course and a student submitted video role play for the online course. The final method that is selected will be one that can effectively be used comparatively in both CRNs of this course.

Acceptable Target:

70%

Ideal Target:

80%

Implementation Plan
(timeline):

This performance indicator was last assessed in 2016-17. It may be assessed again in 2018-2019.

Most Fire Science Technology courses are offered on an alternating basis in a two year cycle.

Key/Responsible
Personnel:

Lee Silvi

Outcome 5

Demonstrate the ability to design and present programs for fire-related issues.

Performance Indicator: 5.1

Analyze data to interpret community educational needs.

▼ **Measure:** Community educational needs

Details/Description:

Acceptable Target: 70%

Ideal Target: 80%

Implementation Plan (timeline): This performance indicator was last assessed in 2017-18. It will be assessed again in 2019-20.

Most Fire Science Technology courses are offered on an alternating basis in a two year cycle.

Key/Responsible Personnel: Lee Silvi

Performance Indicator: 5.2

Recognize how demographics and culture affect community relations and programs.

▼ **Measure:** Demographics

Details/Description:

Acceptable Target: 70%

Ideal Target: 80%

Implementation Plan (timeline): This performance indicator was last assessed in 2017-18. It will be assessed again in 2019-20.

Most Fire Science Technology courses are offered on an alternating basis in a two year cycle.

Key/Responsible Personnel: Lee Silvi

Performance Indicator: 5.3

Analyze, develop, and present an audience specific presentation.

▼ **Measure:** Audience specific presentation

Details/Description:

Acceptable Target: 70%

Ideal Target: 80%

Implementation Plan
(timeline):

This performance indicator was last assessed in 2017-18. It will be assessed again in 2019-20.

Most Fire Science Technology courses are offered on an alternating basis in a two year cycle.

Key/Responsible
Personnel:

Performance Indicator: 5.4

Demonstrate the ability to articulate and exchange ideas using multiple forms of expression.

▼ **Measure:** Articulate/express ideas

Details/Description:

Acceptable Target:

Ideal Target:

Implementation Plan
(timeline):

This performance indicator may be assessed Spring 2019.

Most Fire Science Technology courses are offered on an alternating basis in a two year cycle.

Key/Responsible
Personnel:

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Fire Science Curriculum Map

Courses and Activities Mapped to Fire Science Department Outcome Set

Course	Outcome 1 Articulate the five areas of the National Incident Management System (NIMS).					Outcome 2 Describe and distinguish building components and systems.			Outcome 3 Choose appropriate strategy, tactics, and methods to successfully manage emergency incidents.			Outcome 4 Demonstrate and exhibit an understanding of the profession of the fire service.					Outcome 5 Demonstrate the ability to design and present programs for fire-related issues.					
	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	3.1	3.2	4.1	4.2	4.3	4.4	4.5	5.1	5.2	5.3	5.4			
FIRE 100 Introduction to Fire and Emergency Services	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I		
FIRE 120 Fire Organization and Administration																						
FIRE 170 Fire Protection and Detection Systems						D	D	R		R	D											
FIRE 120 Fire Prevention Practice						R	R	R			R	R	R	R	R	R	R	R	R	R	R	
FIRE 130 Public Sector Community Relations						R	R	R		R	R	D	D	D	D	D	D	D	D	D	D	
FIRE 120 Building Construction for Fire and Life Safety						R	R	D		R			R	R	R	R	R	R	R	R	R	
FIRE 200 Fire Investigation Methods						R	R					D	R	R	D		R	D	D	D	D	
FIRE 205 Fire Service Hydraulics						R	R			R												
FIRE 210 Public Sector Supervision and Leadership											R	D	R	R	R	R	R	R	R	R	R	
FIRE200 Fireground Strategy and Tactics	D	D	D	D	D	R	R	D	D	D	R	R	D	R	R	R	R	R	R	R	R	
FIRE 230																						

	Outcome 1 Articulate the five areas of the National Incident Management System (NIMS).					Outcome 2 Describe and distinguish building components and systems.			Outcome 3 Choose appropriate strategy, tactics, and methods to successfully manage emergency incidents.			Outcome 4 Demonstrate and exhibit an understanding of the profession of the fire services.						Outcome 5 Demonstrate the ability to design and present programs for fire-related issues.		
	1.1 Define and give examples of preparedness.	1.2 Define and give examples of communications and information management.	1.3 Define and give examples of resource management.	1.4 Define and give examples of command and management.	1.5 Define and give examples of ongoing management and maintenance.	2.1 Identify various fire alarm systems.	2.2 Identify the major components of various types of fire protection systems.	2.3 Differentiate between the five major types of building construction to establish strategy tactics for incidents.	3.1 List strategic goals in priority order for various types of incidents.	3.2 Analyze and select the appropriate tactics and methods to achieve strategic goals.	4.1 Recognize why history and culture have an effect on today's fire service.	4.2 Exhibit the characteristics of a fire service professional.	4.3 Analyze current issues and develop appropriate solutions that impact the fire science professional.	4.4 Articulate why "Everyone Home" is important to firefighter safety and survival.	4.5 Explain and demonstrate the characteristics of a fire service manager or administrator.	5.1 Analyze data to interpret community educational needs.	5.2 Recognize how demographics and culture affect community relations and programs.	5.3 Analyze, develop, and present an audience specific presentation.	5.4 Demonstrate the ability to articulate and exchange ideas using multiple forms of expression.	
Combustion Processes and Fire Behavior	R					R	R	R	R											
FIRE 2340 Hazardous Materials Operations and Command									D	R				D						
FIRE2380 Emergency Services Safety and Survival						R			R	R	R	R	D	R	R	R	R		D	
FIRE 2260 Fire Field Service Seminar						R				R	R	R	D	R	R	R	R		D	
FIRE2400 Fire Services Problem Analysis and Solution						R	R			R	D	D		R	R	D	D		D	

Legend: I Introduced R Reinforced D Demonstrated

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