

OHIO FIRE SCIENCE TRANSFER ASSURANCE GUIDE (TAG)

March 16, 2011

Ohio Transfer Module:

Ohio Transfer Module (OTM) Requirements: 36-40 semester hours /54-60 quarter hours. Students should select courses within the OTM that complement the selected major and meet any specific general education requirements. Students are encouraged to complete the OTM to ensure maximum transferability and application of credits.

<u>Required Disciplines</u>	<u>Minimum Required Hours</u>	<u>Recommended Courses</u>
Area I. English Composition	3 sem./5-6 qtr	General Psychology
Area II. Mathematics	3 sem./3 qtr	
Area III. Arts & Humanities	6 sem./9 qtr	
Area IV. Social Sciences	6 sem./9 qtr	
Area V. Natural & Physical Science	6 sem./9 qtr	

Additional courses beyond the minimum required hours, from any of the disciplines listed above, will count toward the completion of the OTM (36-40 semester hours or 54-60 quarter hours).

Advising Notes

A bachelor of science in fire administration, fire and safety engineering technology, or emergency management might require additional general education coursework beyond minimum expectations for associate degree programs in the related field of study, especially in mathematics and natural sciences. Advisors may recommend individual advising with each student to ensure the smooth transfer of general education coursework beyond Transfer Module completion.

Developmental or remedial courses cannot be counted toward general education requirements for baccalaureate degree programs.

Major Courses– Hours/courses listed below that count toward the major or pre-major requirements.

a. FIRE PREVENTION (FP) – OFS001	Credits: 3 semester hours/4 quarter hours
Advising Notes:	
b. FIRE PROTECTION SYSTEMS (FPS) – OFS002	Credits: 2 semester hours/3 quarter hours
Advising Notes:	
c. FIRE BEHAVIOR AND COMBUSTION (FBC) – OFS003	Credits: 2 semester hours/3 quarter hours
Advising Notes:	
d. PRINCIPLES OF EMERGENCY SERVICES (PESS) – OFS004	Credits: 3 semester hours/4 quarter hours
Advising Notes:	
e. BUILDING CONSTRUCTION FOR FIRE PROTECTION (BCFP) – OFS005	Credits: 3 semester hours/4 quarter hours
Advising Notes:	
f. PRINCIPLES OF FIRE AND EMERGENCY SERVICES SAFETY AND SURVIVAL – OFS006	Credits: 2 semester hours/3 quarter hours
Advising Notes:	
Transfer Assurance Guides Total Guaranteed Credits (Range)	
• Ohio Transfer Module	36 – 40 sem. 54 – 60 qtr..
• Pre-major / Major	0 – 15 sem. 0 – 21 qtr.

Institutional Requirements: For entrance and graduation, a transfer student must meet all institutional requirements which would include, but may not be limited to: minimum grade point average, residency requirements, upper-division credits attained, minimum grades in specific courses, performance requirements (ex. dance, music) and other requirements of native students from the same institution.

Learning Outcomes

Summary of Learning Outcomes - All outcomes are essential.

Note: In an effort to limit the size of the TAG, the learning outcomes are shown as a topical outline and were taken from the National Fire Academy FESHE Model Curriculum Associate's (Core) June 2009

OFS001 – FIRE PREVENTION

3 Semester Hours/4 Quarter Hours

Prerequisite: None

Outcomes marked with an asterisk are essential and must be taught (for additional information, refer to the *National Fire Academy FESHE Model Curriculum* Associate's (Core) June 2009).

- 1. Define the national fire problem and role of fire prevention.***
- 2. Identify and describe fire prevention organizations and associations.***
- 3. Define laws, rules, regulations, and codes and identify those relevant to fire prevention of the authority having jurisdiction.***
- 4. Define the functions of a fire prevention bureau.***
- 5. Describe inspection practices and procedures.***
- 6. Identify and describe the standards for professional qualifications for Fire Marshal, Plans Examiner, Fire Inspector, Fire and Life Safety Educator and Fire Investigator.***
- 7. List opportunities in professional development for fire prevention personnel.***
- 8. Describe the history and philosophy of fire prevention.***

OFS002- FIRE PROTECTION SYSTEMS

2 Semester Hours/3 Quarter Hours

Prerequisite: None

Outcomes marked with an asterisk are essential and must be taught (for additional information, refer to the *National Fire Academy FESHE Model Curriculum* Associate's (Core) June 2009).

- 1. Explain the benefits of fire protection systems in various types of structures.***
- 2. Describe the basic elements of a public water supply system including sources, distribution networks, piping and hydrants.***
- 3. Explain why water is a commonly used extinguishing agent.***
- 4. Identify the different types and components of sprinkler, standpipe and foam systems.***

5. Review residential and commercial sprinkler legislation.*
6. Identify the different types of non-water based fire suppression systems.*
7. Explain the basic components of a fire alarm system.*
8. Identify the different types of detectors and explain how they detect fire.*
9. Describe the hazards of smoke and list the four factors that can influence smoke movement in a building.*
10. Discuss the appropriate application of fire protection systems.*
11. Explain the operation and appropriate application for the different types of portable fire protection systems.*

OFS003- FIRE BEHAVIOR AND COMBUSTION

2 Semester Hours/3 Quarter Hours

Prerequisite: None.

Outcomes marked with an asterisk are essential and must be taught (for additional information, refer to the *National Fire Academy FESHE Model Curriculum* Associate's (Core) June 2009).

1. Identify physical properties of the three states of matter.*
2. Categorize the components of fire.*
3. Explain the physical and chemical properties of fire.*
4. Describe and apply the process of burning.*
5. Define and use basic terms and concepts associated with the chemistry and dynamics of fire.*
6. Discuss various materials and their relationship to fires as fuel.*
7. Demonstrate knowledge of the characteristics of water as a fire suppression agent.*
8. Articulate other suppression agents and strategies.*
9. Compare other methods and techniques of fire extinguishments.*

OFS004- PRINCIPLES OF EMERGENCY SERVICES

3 Semester Hours/4 Quarter Hours

Prerequisite: None

Outcomes marked with an asterisk are essential and must be taught (for additional information, refer to the *National Fire Academy FESHE Model Curriculum* Associate's (Core) June 2009).

1. Illustrate and explain the history and culture of the fire service.*

2. Analyze the basic components of fire as a chemical chain reaction and the major phases of fire and examine the main factors that influence fire spread and fire behavior.*
3. Differentiate between fire service training and education and explain the value of higher education to the professionalization of the fire service.*
4. List and describe the major organizations that provide emergency response service and illustrate how they interrelate.*
5. Identify fire protection and emergency-service careers in both the public and private sectors.*
6. Define the role of national, state and local support organizations in fire and emergency services.*
7. Discuss and describe the scope, purpose, and organizational structure of fire and emergency services.*
8. Describe the common types of fire and emergency service facilities, equipment, and apparatus.*
9. Compare and contrast effective management concepts for various emergency situations.*
10. Identify and explain the components of fire prevention including code enforcement, public information, and public and private fire protection systems.*
11. Recognize the components of career preparation and goal setting.*
12. Describe the importance of wellness and fitness as it relates to emergency services.*

OFS005- BUILDING CONSTRUCTION FOR FIRE PROTECTION

3 Semester Hours/4 Quarter Hours

Prerequisite: Completion of *Principles of Emergency Services* or instructor approval.

Outcomes marked with an asterisk are essential and must be taught (for additional information refer to the *National Fire Academy FESHE Model Curriculum Associate's (Core) June 2009*).

1. Describe building construction as it relates to firefighter safety, buildings codes, fire prevention, code inspection, firefighting strategy, and tactics.*
2. Classify major types of building construction in accordance with a local/model building code.*
3. Analyze the hazards and tactical considerations associated with the various types of building construction.*
4. Explain the different loads and stresses that are placed on a building and their interrelationships.*
5. Identify the function of each principle structural component in typical building design.*
6. Differentiate between fire resistance and flame spread and describe the testing procedures used to establish ratings for each.*
7. Classify occupancy designations of the building code.*
8. Identify the indicators of potential structural failure as they relate to firefighter safety.*
9. Identify the role of Geographic Information Systems (GIS) as it relates to building construction.*

OFS006- PRINCIPLES OF FIRE AND EMERGENCY SERVICES SAFETY AND SURVIVAL

2 Semester Hours/3 Quarter Hours

Prerequisite: None

Outcomes marked with an asterisk are essential and must be taught (for additional information refer to the *National Fire Academy FESHE Model Curriculum* Associate's (Core) June 2009).

- 1. Define and describe the need for cultural and behavioral change within the emergency services relating to safety, incorporating leadership, supervision, accountability and personal responsibility.***
- 2. Explain the need for enhancements of personal and organizational accountability for health and safety.***
- 3. Define how the concepts of risk management affect strategic and tactical decision-making.***
- 4. Describe and evaluate circumstances that might constitute an unsafe act.***
- 5. Explain the concept of empowering all emergency services personnel to stop unsafe acts.***
- 6. Validate the need for national training standards as they correlate to professional development inclusive of qualifications, certifications, and re-certifications.***
- 7. Defend the need for annual medical evaluations and the establishment of physical fitness criteria for emergency services personnel throughout their careers.***
- 8. Explain the vital role of local departments in national research and data collection systems.***
- 9. Illustrate how technological advancements can produce higher levels of emergency services safety and survival.***
- 10. Explain the importance of investigating all near-misses, injuries and fatalities.***
- 11. Discuss how incorporating the lessons learned from investigations can support cultural change throughout the emergency services.***
- 12. Describe how obtaining grants can support safety and survival initiatives.***
- 13. Formulate an awareness of how adopting standardized policies for responding to emergency scenes can minimize near-misses, injuries and deaths.***
- 14. Explain how the increase in violent incidents impacts safety for emergency services personnel when responding to emergency scenes.***
- 15. Recognize the need for counseling and psychological support for emergency services personnel and their families, as well as identify access to local resources and services.***
- 16. Describe the importance of public education as a critical component of life safety programs.***
- 17. Discuss the importance of fire sprinklers and code enforcement.***
- 18. Explain the importance of safety in the design of apparatus and equipment.***

FACULTY PARTICIPANTS

Name	Institution
Larry Bennett	University of Cincinnati
Fred Bertram	Stark State College of Technology
Franklin Clay	Sinclair Community College
Frank Conway	Superintendent Ohio Fire Academy
Walt Hower	University of Akron
Ted Huffman	Cuyahoga Community College
Michele Johnson	Chair School of Public Safety and Emergency Preparedness Owens Community College
Ann Light	Assistant Dean of Professional and Community Education Bowling Green State University
Jay Louks	Coordinator Fire Science Columbus State Community College
Doug Orahood	Fire Coordinator State of Ohio Division of EMS
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Phil Vossmeier	Program Director Cincinnati State Community College