Course Description
FS 100. Firefighter 1. 4.5 hours credit. Co-requisite: Concurrent enrollment in FS 207. This course will enable the student to perform basic fire service operations and gain basic knowledge of personal safety, personal protective clothing and equipment, fire service tools and equipment, fire behavior, building construction, and fire ground tactics and strategies. The student will also cover the content outlined in the National Fire Protection Association’s (NFPA) Standard 1001, Firefighter Professional Qualifications, pertaining to the Firefighter I level.

Required Materials
For complete material(s) information, refer to https://bookstore.butlercc.edu

Butler-Assessed Outcomes
The intention is for the student to be able to
1. Analyze the basic components of fire as a chemical chain reaction, the major phases of fire, and the main factors that influence fire spread and fire behavior.
2. Compare and contrast effective management concepts for various emergency situations.
3. Identify the primary responsibilities of fire prevention personnel, including code enforcement, public information, and public and private protection systems.

Learning Outcomes
The intention is for the student to be able to
1. Define the role of national, state and local support organizations in fire and emergency services.
2. Discuss and describe the scope, purpose, and organizational structure of fire and emergency services.
3. Describe the common types of fire and emergency services facilities, equipment, and apparatus.
4. Describe the importance of wellness and fitness as it relates to emergency services.
5. Illustrate and explain the history and culture of the fire service.
6. Recognize the components of career preparation and goal setting.

Learning PACT Skills that will be developed and documented in this course
Through involvement in this course, the student will develop ability in the following PACT skill area(s):
Analytical Thinking Skills
Critical thinking - Through demonstration of job performance requirements outlined in NFPA 1001, the student will identify specific tasks relative to emergency scene operations.

Technology Skills
Discipline-specific technology - Through demonstration of proficient use of tools and equipment used by the fire service, the student will master job performance requirements outlined in NFPA 1001.

Major Summative Assessment Task(s)
These Butler-assessed Outcome(s) and Learning PACT skill(s) will be demonstrated by
1. Using fire service tools and equipment to master the job performance requirements outlined in NFPA 1001, thus preparing the student for the IFSAC certification examination.

Skills or Competencies
These actions are essential to achieve the course outcomes:
1. Don personal protective clothing
2. Hoist tools and equipment
3. Initiate a response to an emergency
4. Receive an emergency and non-emergency call
5. Transmit and receive communications via fire department radio
6. Use self-contained breathing apparatus (SCBA)
7. Respond on an apparatus
8. Establish and operate work area at emergency scene
9. Force entry into a structure
10. Exit a hazardous area as a team
11. Set up ground ladders
12. Attack a passenger vehicle fire
13. Extinguish fires in exterior Class A materials
14. Conduct a search and rescue in a structure
15. Attack an interior structure fire
16. Perform horizontal ventilation on a structure
17. Perform vertical ventilation on a structure
18. Overhaul a fire scene
19. Demonstrate conservation of property
20. Connect a fire department pumper to a water supply
21. Extinguish incipient Class A, B, and C fires
22. Illuminate the emergency scene
23. Combat ground cover fires
24. Clean and check ladders, ventilation equipment, SCBA, ropes, salvage equipment, and hand tools
25. Clean, inspect and return fire hose to service

Learning Units
I. Firefighter orientation
   A. Fire service history and culture
B. Fire service mission and organization
C. Fire department regulations
D. National Incident Management System
E. Interacting with other organizations

II. Firefighter health and safety
A. Injuries and fatalities
B. Safety standards
C. Risk management
D. Safety and health programs
E. Safety on apparatus
F. Safety in facilities
G. Safety in training
H. Emergency operations

III. Fire behavior
A. Science of fire
B. Fire development in compartments
C. Fire control theory

IV. Building construction
A. Terminology
B. Building materials
C. Construction classifications
D. Hazards related to building construction

V. Firefighter personal protective equipment
A. Personal protective clothing
B. Respiratory protection
C. Donning and doffing protective breathing apparatus
D. Inspection and maintenance of protective breathing apparatus
E. Use of self-contained breathing apparatus

VI. Portable fire extinguishers
A. Types
B. Extinguishers and agents for metal fires
C. Extinguisher rating system
D. Selection of and use of portable fire extinguishers
E. Inspection of fire extinguishers

VII. Ropes and knots
A. Types of ropes
B. Rope construction
C. Rope maintenance
D. Knots
E. Rope hardware
F. Hoisting equipment
G. Rescue rope

VIII. Rescue
A. Fire ground search and rescue
B. Victim removal
C. Rescue tools and equipment
IX. Forcible entry
   A. Tools
   B. Door size up and construction features
   C. Locks and locking devices
   D. Nondestructive rapid entry
   E. Conventional forcible entry through doors, gates, and fences
   F. Forcing windows
   G. Breaching walls
   H. Breaching floors

X. Ground ladders
   A. Basic construction
   B. Inspection and maintenance
   C. Carries
   D. Positioning
   E. General procedures for raising and climbing
   F. Procedures for moving ground ladders
   G. Securing ground ladders
   H. Climbing ladders
   I. Working from a ladder
   J. Assisting a victim down a ladder

XI. Ventilation
   A. Reasons for fire ground ventilation
   B. Considerations affecting the decision to ventilate
   C. Vertical ventilation
   D. Horizontal ventilation
   E. Forced ventilation
   F. Effects of building systems on fires

XII. Water supply
   A. Principles of water supply
   B. Pressure measurements
   C. Fire hydrants
   D. Alternative water supplies
   E. Rural water supplies

XIII. Fire hose
   A. Sizes
   B. Cause and prevention of damage
   C. Care and maintenance
   D. Fire hose couplings
   E. Hose appliances and tools
   F. Hose rolls
   G. Hose loads and finishes
   H. Supply hose lays
   I. Handling fire hose
   J. Advancing hose lines
   K. Operating hose lines

XIV. Fire streams
A. Extinguishing properties of water
B. Fire stream patterns and nozzles

XV. Fire control
A. Suppressing structure fires
B. Deploying master streams devices
C. Suppress Class C fires
D. Company level fire tactics

XVI. Fire detection, alarm, and suppression systems
A. Types of alarm systems
B. Automatic sprinkler systems
C. Operations at fires in protected properties

XVII. Loss control
A. Philosophy of loss control
B. Salvage
C. Overhaul

XVIII. Protecting fire scene evidence
A. Roles and responsibilities
B. On scene observations and conduct
C. Responsibilities after the fire

XIX. Fire department communications
A. Communications center and personnel
B. Receiving emergency and non-emergency calls from the public
C. Radio communications

XX. Fire prevention and public education
A. Fire and life safety initiatives
B. Fire prevention
C. Fire hazards
D. Public fire and life safety education

**Learning Activities**
Learning activities will be assigned to assist the student to achieve the intended learning outcomes through lecture, discussion, videos, online aids, hands on exercises, and other activities at the discretion of the instructor.

**Grade Determination**
The student will be graded on learning activities and assessment tasks. The student will be evaluated through written exams, job performance requirements, and other methods of evaluation at the discretion of the instructor.