

## Firefighter Certification IV (FIRS 1319)



**Credit:** 3 semester credit hours (2 hours lecture, 4 hours lab)

**Co-requisite:** FIRS 1103, FIRS 1301, FIRS 1329, FIRS 1407, and FIRS 1433

### Course Description<sup>1</sup>

One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, VI and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100.

### Required Textbook and Materials

1. *Essentials of Fire Fighting and Department Operations* 6<sup>th</sup> Edition. Brady Publishing. Validated by IFSTA
  - a. ISBN-13: 978-0-13-314080-4
2. *Hazardous Materials for First Responders* 4<sup>th</sup> Edition. Published by: Fire Protection Publications, Oklahoma State University. Validated by IFSTA
  - a. ISBN: 978-0-87939-389-2

### Course Objectives

Upon completion of this course, the student will be able to:

1. Demonstrate competencies, for subjects taught, set forth in the TCFP curriculum for Basic Fire Suppression found at

[http://www.tcfp.state.tx.us/standards/curriculum\\_manual/chapter\\_1.pdf](http://www.tcfp.state.tx.us/standards/curriculum_manual/chapter_1.pdf)

101-1.00 The firefighter trainee shall identify state laws and rules related to health and safety.

101-2.00 The firefighter trainee shall describe the responsibilities of a firefighter relating to compliance with the provisions of occupational safety and health programs.

101-3.00 The firefighter trainee shall identify the correct laws and rules applicable to Basic Firefighter certification by the Texas Commission on Fire Protection.

101-4.00 The firefighter trainee shall identify the various levels of instructor certification by the Texas Commission on Fire Protection.

102-1.00 The firefighter trainee shall identify, safely carry, and describe how to use forcible entry tools safely.

103-1.00 The firefighter trainee shall be able to describe the purpose of the NFPA standard applicable to portable fire extinguishers.

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<sup>1</sup> This course may be offered only by institutions licensed as a fire academy by the Texas Commission on Fire Protection

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104-1.00 The firefighter trainee shall be able to describe the purpose of the NFPA standard applicable to ropes.

105-1.00 The firefighter trainee shall be able to describe the purpose of the NFPA standards applicable to fire service ladders.

106-1.00 The firefighter trainee shall be able to describe the purpose of the NFPA standards applicable to fire service hose.

107-1.00 The firefighter trainee shall identify and describe the purpose of salvage and its value to the fire department and in public relations.

108-1.00 The firefighter trainee shall identify and describe the safety precautions necessary during overhaul.

109-1.00 The firefighter trainee shall identify, define, and demonstrate characteristics of fire streams.

110-1.00 The firefighter trainee shall identify and describe the principles, advantages, and effects of proper ventilation.

111-1.00 The firefighter trainee shall describe and demonstrate the proper techniques of searching for victims.

112-1.00 The firefighter trainee shall be able to describe the purpose of the NFPA standard applicable to fire prevention inspections.

113-1.00 The firefighter trainee shall describe the operation of fire hydrants, fully open and close fire hydrants, and identify the NFPA hydrant color code.

114-1.00 The firefighter trainee shall be able to describe the purpose of the NFPA standards applicable to fire protection systems.

115-1.00 The firefighter trainee shall identify and describe the process of combustion and define key terms associated with fire science.

116-1.00 The Firefighter trainee shall identify and be able to describe the purpose, goals, and definitions of the NFPA standards applicable to Hazardous Materials.

117-1.00 The firefighter trainee shall explain, identify, or demonstrate emergency service communication procedures.

118-1.00 The firefighter trainee shall describe the importance and purpose of communications between the fire department and the community.

119-1.00 The firefighter trainee shall define the following terms related to wildland fire suppression.

120-1.00 The firefighter trainee shall describe the purpose of the following NFPA standards applicable to SCBAs.

121-1.00 The firefighter trainee shall be able to describe the purpose of the following NFPA standards applicable to personal protective equipment.

122-1.00 The firefighter trainee shall be able to describe the purpose of the NFPA standard applicable to professional firefighters.

123-1.00 The firefighter trainee shall identify and describe the basic types of building construction and the general fire behavior expected with each type of construction.

124-1.00 The firefighter trainee shall identify and describe the general requirements, purpose, and definitions of the NFPA standard(s) applicable to Live Fire Training Evolutions.

125-1.00 The firefighter trainee shall identify the responsibilities of the firefighter which could assist in the subsequent investigation of a fire.

156-1.00 The firefighter trainee shall demonstrate procedures for testing fire hose.

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158-1.00 The firefighter trainee shall list and describe dangerous building conditions.

159-1.00 The firefighter trainee shall identify and define foam making appliances, and shall demonstrate a foam stream from each.

160-1.00 The firefighter trainee shall recognize the characteristics of ventilating a basement.

161-1.00 The firefighter trainee, operating as a member of a team, shall demonstrate the extrication of a victim from a vehicle.

162-1.00 The firefighter trainee shall identify the types of fire extinguishers in an occupancy and ensure that they conform to the fire prevention requirements for that occupancy.

163-1.00 The firefighter trainee shall identify and describe water systems and their fundamental components.

164-1.00 The firefighter trainee shall identify the features and characteristics of automatic sprinkler systems.

166-1.00 The firefighter trainee shall identify and be able to describe the purpose, goals, and definitions of the NFPA standards applicable to Hazardous Materials.

173-1.00 The firefighter trainee shall identify and describe the basic types of building construction and the general fire behavior expected with each type of construction.

174-1.00 The firefighter trainee shall extinguish or control live fires.

175-1.00 The firefighter trainee shall identify the methods for protecting evidence for fire cause determination.

176-1.00 The firefighter trainee shall identify and describe the purpose of an incident management system.

177-1.00 The firefighter trainee shall identify fire incident reporting systems.

178-1.00 The firefighter trainee shall identify and describe the benefits and components of pre-incident planning.

179-1.00 The firefighter trainee shall be able to describe various types of automotive fire apparatus, their functions, and their features.

180-1.00 The firefighter trainee shall identify various types of fire apparatus pumps and pump components, and shall identify their function(s), theory(s), and principle(s) of operation.

## **SCANS Skills and Competencies**

Beginning in the late 1980's, the U.S. Department of Labor Secretary's Commission on Achieving Necessary Skills (SCANS) conducted extensive research and interviews with business owners, union leaders, supervisors, and laborers in a wide variety of work settings to determine what knowledge workers needed in order to perform well on a job. In 1991 the Commission announced its findings in What Work Requires in Schools. In its research, the Commission determined that "workplace know-how" consists of two elements: foundation skills and workplace competencies.

## **Course Outline**

The Texas Commission on Fire Protection determines the minimum course content.

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### **Grade Scale**

|          |   |
|----------|---|
| 90 – 100 | A |
| 80 – 89  | B |
| 70 – 79  | C |
| 60 – 69  | D |
| 0 – 59   | F |

### **Course Evaluation**

Completion of the Basic Firefighting Certification Academy leads to the issuance of a Certificate of Completion. The full-time BFFC consists of six separate course designations which are conducted concurrently – FIRS 1301, FIRS 1319, FIRS 1329, FIRS 1407, FIRS 1433 and FIRS 1103. The second digit from the left denotes the number of semester hour credits per course.

Cadets receive one academic grade which is identical for each of the five core academy courses (FIRS 1301, FIRS 1319, FIRS 1329, FIRS 1407, and FIRS 1433). FIRS 1103 Firefighter Agility and Fitness Preparation, is the physical fitness component of the academy and the cadet will receive a separate grade for that course. Successful completion of the BFFC results in the graduate receiving 18 college credit hours. These courses are used in computing the cadet's Grade Point Average.

### **EXAMS**

Exams will be announced in advance.

- ◆ Pop quizzes may be given at any time; you should be prepared at all times.
- ◆ Student Workbooks are expected to be completed by all Cadets (these will be picked up periodically to see if you are working on them and assigned a grade at the end of the academy)
- ◆ Each student will be assigned a topic for writing a research paper.
- ◆ A comprehensive final examination will be given at the end of the academy. Passing of the final is **MANDATORY**. In order to be eligible to sit for the Final Exam, all absences are to be completed and all LIT financial obligations must be met prior to the date of the exam.

### **ASSIGNMENTS**

Each Cadet will be expected to satisfactorily participate in and complete all assignments and examinations given in the course attended.

- ◆ Homework and/or remedial work will be assigned and must be satisfactorily completed by the assigned date and time. Failure to complete work assignments will be considered insubordination and will be referred for disciplinary action.

### **GRADING**

- ◆ The minimum passing grade on written exams shall be a grade of 75.
- ◆ Cadets failing to achieve an average of 75 upon completion of the first three exams are subject to dismissal from the academy.

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- ◆ Cadets failing to maintain a 75 average at any time during the academy will be placed on Academic Probation and afforded the next two tests to demonstrate academic competence. A Cadet failing to successfully pass those two tests may be dismissed from the academy.
- ◆ Course Grade:

|                          |            |
|--------------------------|------------|
| a. Live Fire Evaluations | 5%         |
| b. Exams                 | 60%        |
| c. Research Paper        | 10%        |
| d. Physical Training     | 5%         |
| e. Final Exam            | <u>20%</u> |
| f. Final Course Grade    | 100%       |
- ◆ All examinations and research papers become the property of the academy.

Late Penalties (5 points per day) will be assessed on all work turned in late.

### **Course Requirements**

#### **NOTEBOOKS**

- a. Notebooks should be maintained by each Cadet. Some handout material will be available, but Cadets should not depend on handouts to replace notes, only to supplement them.
- b. Notes should cover all subjects taught. Notes should be of such quantity and quality that the Cadet or anyone else would be able to refer to them and recall the subject matter.
- c. All notes should be transcribed and placed in the notebook. Each subject should be separated from the other subjects by dividers, and a Table of contents established for easy reference.
- d. There should not be any foreign materials in the notebook (items from other classes, departments, schools, etc.) non-pertinent drawings, or obscene materials.

#### **STUDENT WORKBOOK**

Student Workbooks are to be completed by each Cadet.

1. Submit answers to the Brigade Member in Action scenarios for each chapter.
2. Complete the chapter quizzes.
3. Research, write, and submit a paper on assigned topic.
4. Participate in student-to-student-to-instructor activity (discussions regarding Voices of Experience articles included in selected chapters).
5. Sit for a comprehensive final exam.

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**Attendance Policy**

1. Missing more than 40 academy hours will result in an automatic “F” for the course.
2. Absences are counted for unexcused, excused and coming to class late.
3. Missing more than 1 ½ hours of an academy class will count as an absence.
4. Being tardy 3 times equals 1 absence.
5. Students enrolled in an online offering of this course must log-in at least once per week or will be counted as absent. Three absences will result in an “F” for the course.

**Course Policies**

Course policies are included in the comprehensive LIT Regional Fire Academy Handbook. Each student will receive either a printed or digital copy of the handbook.

**Disabilities Statement**

The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409) 880-1737 or visit the office in Student Services, Cecil Beeson Building.

**Course Schedule (Sample)**

| Class Day | Start Time | End Time | Hrs Trng | Subject/ Curriculum Number | Subject                                                       |
|-----------|------------|----------|----------|----------------------------|---------------------------------------------------------------|
| 1         | 7:30       | 16:30    | 8        | 101                        | Admin/TCFP & LIT R&R/CPAT Orientation/Research Paper Assgmnts |
| 2         | 7:30       | 16:30    | 8        | 115                        | Fire Science/Behavior                                         |
| 2         | 16:30      | 17:30    | 1        | PFT                        | Physical Fitness Evaluation                                   |
| 3         | 7:30       | 16:30    | 8        | 115                        | Fire Science/Behavior                                         |
| 4         | 7:30       | 16:30    | 8        | 176                        | NIMS & ICS                                                    |
| 4         | 16:30      | 17:30    | 1        | PFT                        | Physical Fitness Training                                     |
| 5         | 7:30       | 16:30    | 8        | 176                        | NIMS & ICS                                                    |
| 5         | 16:30      | 17:30    | 1        | PFT                        | Physical Fitness Training                                     |
| 6         | 7:30       | 16:30    | 8        | 121                        | Personal Protective Equipment (PPE)                           |
| 6         | 16:30      | 17:30    | 1        | PFT                        | Physical Fitness Training                                     |
| 7         | 7:30       | 16:30    | 8        | 120                        | SCBA                                                          |
| 7         | 16:30      | 17:30    | 1        | PFT                        | Physical Fitness Training                                     |
| 8         | 7:30       | 16:30    | 8        | 120                        | SCBA                                                          |
| 9         | 7:30       | 16:30    | 8        | 104                        | SCBA (Skills Testing)                                         |

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| <b>Class Day</b> | <b>Start Time</b> | <b>End Time</b> | <b>Hrs Trng</b> | <b>Subject/ Curriculum Number</b> | <b>Subject</b>                                    |
|------------------|-------------------|-----------------|-----------------|-----------------------------------|---------------------------------------------------|
| 9                | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 10               | 7:30              | 16:30           | 8               | 122                               | Firefighter Safety & Orientation                  |
| 11               | 7:30              | 16:30           | 8               | 122                               | Firefighter Safety & Orientation                  |
| 11               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 12               | 7:30              | 16:30           | 8               | 122                               | Firefighter Safety & Orientation                  |
| 13               | 7:30              | 16:30           | 8               | 122                               | Firefighter Safety & Orientation (Skills Testing) |
| 14               | 7:30              | 16:30           | 8               | 123                               | Building Construction                             |
| 14               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 15               | 7:30              | 16:30           | 8               | 113                               | Water Supply                                      |
| 15               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 16               | 7:30              | 16:30           | 8               | 111                               | Search & Rescue                                   |
| 16               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 17               | 7:30              | 16:30           | 8               | 120/111                           | SCBA's (Smoke House)                              |
| 18               | 7:30              | 16:30           | 8               | PFT/121/120                       | CPAT 2nd Orientation/Skills Practice - PPE & SCBA |
| 19               | 7:30              | 16:30           | 8               | 111                               | Search & Rescue                                   |
| 19               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 20               | 7:30              | 16:30           | 8               | 106                               | Fire Service Hose                                 |
| 20               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 21               | 7:30              | 16:30           | 8               | 106                               | Fire Service Hose                                 |
| 21               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 22               | 7:30              | 16:30           | 8               | 156                               | Fire Service Hose (Skills Testing)                |
| 23               | 7:30              | 16:30           | 8               | 109                               | Fire Streams                                      |
| 23               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 24               | 7:30              | 16:30           | 8               | 117                               | Emergency Services Communications                 |
| 24               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 25               | 7:30              | 16:30           | 8               | 105                               | Fire Service Ground Ladders                       |
| 25               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 26               | 7:30              | 16:30           | 8               | 105                               | Fire Service Ground Ladders                       |
| 26               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 27               | 7:30              | 16:30           | 8               | 105                               | Fire Service Ground Ladders & Aerial Climb        |
| 28               | 7:30              | 16:30           | 8               | 107                               | Fire Service Salvage                              |
| 28               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 29               | 7:30              | 16:30           | 8               | 108/158                           | Fire Service Overhaul                             |
| 29               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 30               | 7:30              | 16:30           | 8               | 102                               | Firefighter Tools & Equipment                     |
| 30               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 31               | 7:30              | 16:30           | 8               | 102                               | Forcible Entry                                    |

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| <b>Class Day</b> | <b>Start Time</b> | <b>End Time</b> | <b>Hrs Trng</b> | <b>Subject/ Curriculum Number</b> | <b>Subject</b>                                    |
|------------------|-------------------|-----------------|-----------------|-----------------------------------|---------------------------------------------------|
| 31               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 32               | 7:30              | 16:30           | 8               | 110                               | Ventilation                                       |
| 33               | 7:30              | 16:30           | 8               | 110                               | Ventilation                                       |
| 33               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 34               | 7:30              | 16:30           | 8               | 160                               | Ventilation (Skills Testing)                      |
| 34               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 35               | 7:30              | 16:30           | 8               | 111                               | CPAT 3rd Orientation & Practice & Skills Practice |
| 36               | 7:30              | 16:30           | 8               | 124/174                           | Fire Control: Response & Scene Size Up            |
| 36               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 37               | 7:30              | 16:30           | 8               | 124/174                           | Fire Control: Response & Scene Size Up            |
| 38               | 7:30              | 16:30           | 8               | 124/174                           | Fire Control: Fire Suppression                    |
| 38               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 39               | 7:30              | 16:30           | 8               | 110/160                           | Ventilation/Forcible Entry Houses                 |
| 40               | 7:30              | 16:30           | 8               | 103                               | Portable Fire Extinguishers (Skills Testing)      |
| 40               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 41               | 7:30              | 16:30           | 8               | 104                               | Ropes, Knots & Hitches                            |
| 41               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 42               | 7:30              | 16:30           | 8               | 161                               | Rescue                                            |
| 43               | 7:30              | 17:30           | 8               | 161                               | Rescue                                            |
| 43               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 44               | 7:30              | 16:30           | 8               | 161                               | Rescue (Skills Testing)                           |
| 44               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 45               | 7:30              | 16:30           | 8               | 161                               | Rescue (Skills Testing)                           |
| 45               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 46               | 7:30              | 16:30           | 8               | 161                               | Vehicle Extrication                               |
| 47               | 7:30              | 16:30           | 8               | 107/106                           | Skills Practice & Testing - S & O and Hose        |
| 48               | 7:30              | 16:30           | 8               | FIRS                              | Driving Practices                                 |
| 48               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 49               | 7:30              | 16:30           | 8               | FIRS                              | Pump Operations                                   |
| 49               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 50               | 7:30              | 16:30           | 8               | 119                               | Wildland Fire Suppression                         |
| 50               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |
| 51               | 7:30              | 16:30           | 8               | 119                               | Wildland Fire Suppression Skills                  |
| 52               | 7:30              | 16:30           | 8               | 161                               | Transportation Emergencies                        |
| 53               | 7:30              | 16:30           | 8               | PFT/FIRS                          | CPAT 4th Practice & Skills Practice               |
| 54               | 7:30              | 16:30           | 8               | 124                               | Live Fire Training (Flashover)                    |
| 55               | 7:30              | 16:30           | 8               | 125/175                           | Fire Cause                                        |
| 55               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                         |



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| <b>Class Day</b> | <b>Start Time</b> | <b>End Time</b> | <b>Hrs Trng</b> | <b>Subject/ Curriculum Number</b> | <b>Subject</b>                              |
|------------------|-------------------|-----------------|-----------------|-----------------------------------|---------------------------------------------|
| 56               | 7:30              | 16:30           | 8               | 112                               | Inspections/Fire Prevention Education       |
| 56               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                   |
| 57               | 7:30              | 16:30           | 8               | 124                               | Live Fire Training                          |
| 58               | 7:30              | 16:30           | 8               | 124                               | Live Fire Training                          |
| 59               | 7:30              | 16:30           | 8               | 118/177                           | Public Relations, Reports & Records         |
| 60               | 7:30              | 16:30           | 8               | 112                               | Inspections/Fire Prevention Education       |
| 60               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                   |
| 61               | 7:30              | 16:30           | 8               | 124                               | Live Fire Training (Skills Testing)         |
| 61               | 16:30             | 17:30           | 1               | PFT                               | Physical Fitness Training                   |
| 62               | 7:30              | 16:30           | 8               | 124                               | Live Fire Training (Skills Testing)         |
| 63               | 7:30              | 16:30           | 8               | 159                               | Foam Fire Streams (Skills Testing)          |
| 64               | 7:30              | 16:30           | 8               | 174                               | Night Live Fire Training                    |
| 65               | 7:30              | 17:30           | 8               | 178                               | Pre-incident Planning/Research Projects Due |
| 66               | 7:30              | 13:30           | 5               | PFT                               | CPAT Test                                   |
| 67               | 7:30              | 16:30           | 8               | 116                               | HazMat Awareness                            |
| 68               | 7:30              | 16:30           | 8               | 116                               | HazMat Awareness                            |
| 69               | 7:30              | 16:30           | 8               | 166                               | HazMat Operations                           |
| 70               | 7:30              | 16:30           | 8               | 166                               | HazMat Operations                           |
| 71               | 7:30              | 16:30           | 8               | 166                               | Response to Terrorism & Operations Skills   |
| 72               | 7:30              | 16:30           | 8               | 114                               | Fire Protection Systems                     |
| 73               | 7:30              | 16:30           | 8               | 164                               | Fire Protection Systems (Skills Testing)    |
| <b>74</b>        | <b>7:30</b>       | <b>16:30</b>    | <b>8</b>        | <b>FIRS</b>                       | <b>Final Exam/Skills Practice</b>           |
| <b>75</b>        | <b>7:30</b>       | <b>16:30</b>    | <b>8</b>        | <b>TCFP</b>                       | <b>TCFP State Certification Testing</b>     |
|                  | <b>1800</b>       | <b>2100</b>     |                 | <b>LIT</b>                        | <b>Commencement @ Montagne Center</b>       |
|                  |                   |                 |                 | (Total Hours may vary)            |                                             |
| <b>634</b>       |                   |                 |                 |                                   |                                             |