**Program Review of the Fire Science Training Program**

**SECTION 1 –OVERVIEW:**

***Narrative***

The Coconino Community College Fire Science program has been structured to prepare the student to meet the requirements for basic firefighter certification and ultimately achievement of the AAS degree in Fire Science Technology.

**Basic Firefighter Certificate:**

This program is designed to prepare students for the firefighting occupation. Students of the Fire Science Program will learn: functions of various fire equipment, fire apparatus, as well as both the theory and practical application of firefighting technology. The program will prepare students for firefighter certification testing from the Arizona Department of Emergency Management (ADEM), and Arizona Center for Fire Service Excellence (ACFSE) based on National Fire Protection Association standards. This program will provide training to: those interested in a career in the fire service, newly hired firefighters, as well as provide ongoing training to current career and volunteer veteran firefighters.

**Fire Science Technology AAS :**

The Fire Science Technology Associate Degree program is designed to build on students' basic knowledge of the firefighting occupation. The program will prepare students beyond the basic fire suppression certification according to industry practices and National Fire Protection Association standards. Students will also be introduced to the organization and management of a fire department along with management of an emergency incidents. The Fire Science Technology program will also provide training concerning fire inspection areas such as: rules, codes, fire investigation, and field inspection. Instruction is geared toward understanding industry standards such as those propagated by the National Fire Protection Association.

***Program mission statement***

The mission of the Coconino Community College Fire Science program is to train a diverse population of students to become true leaders in the American Fire Service.  Through extensive real-world labs and coursework, students will learn the most current developments in the fields of fire, medical, and environmental emergencies to meet the high standards of honor and duty that come with the fire service. Upon completion of certain courses, students will be eligible for certification testing as firefighters, EMTs, Haz-Mat Materials Awareness/Operations, and Fire Investigators. Students will also have the baseline knowledge, skills, ability to work as line firefighters and emergency medical technicians.

***Staffing of the program***

Currently there is one half time (.5 FTE) Program Coordinator who oversees the Fire Science Program. The program’s various course offerings are taught by eleven (11) part-time instructors. It is common practice for some instructors to team teach in order to bring a variety of perspectives and teaching styles into the class room and field training environment. Three (3) Teaching Assistants commit to twenty-four hours (24) of hands-on skills instruction for each Fire Fighter I and II class and approximately twelve (12) Contract Assistants filling any remaining hands-on instructional voids as well as skills examinations.

***Decision making***

Decision-making is based upon the need to comply with current standards as set by the National Fire Protection Association, Arizona Center for Fire Service Excellence and local Fire and Emergency Services Providers requirements. These administrative decisions are made in concert with the Dean of Career and Technical Education, the Fire Science Program Coordinator, the Fire Science Program instructor cadre, and the Fire Science Advisory Council committee.

Below is a chart summarizing certification testing results from the Arizona Center for Fire Service Excellence for Fire Fighter I and II and Hazardous Materials classes for the past two years.



***A statement of the program’s accomplishments in support of the College’s current strategic plan.***

Looking at the past two years of data from the Arizona Center for Fire Service Excellence the Fire Fighter I and II class (FSC 180) has an overall certification rate of 86% (30 of 35 students passed both the cognitive and psychomotor skills exams). The Haz-Mat FRA/FRO has an overall certification rate of 66% (38 of 57 students passed both the cognitive and psychomotor skills exams).

***A description of the current facilities needed to conduct the program, including space and equipment.***

Classroom and field exercise training areas. CCC works in concert with the Flagstaff Fire Department and other regional fire departments to share specialized firefighting training structures and equipment including:

Live fire burn tower

Firefighting apparatus (pumpers, ladder trucks and heavy rescue vehicles)

Air bottle filling trailer

Supplemental teaching personnel.

Power tools (hydraulic rescue tools, chainsaws, fans, etc…), ladders, ropes, radios, etc….

Self-contained breathing apparatus

Personal Protective Equipment (Turnouts)

**SECTION 2- TEACHING AND LEARNING:**

***Program requirements and course offerings***

|  |  |  |  |
| --- | --- | --- | --- |
| **Core Curriculum**  FSC 135 Fundamentals of Fire Prevention | | **Electives**  FSC 233 Wildland Fire Suppression | |
| FSC 136 Fire Apparatus and Hydraulics | | FSC 234 Fire Investigation | |  |
| FSC 138 Hazardous Materials First Responder | | FSC 235 Fire Protection Systems | |  |
| FSC 180 Fire Fighter I and II | | FSC 241 Firefighter Safety & Building Construction | |  |
| FSC 236 Firefighter Occupational Safety | | FSC 243 Intermediate Wildland Suppression | |  |
| FSC 238 Emergency Scene Management | | FSC 253 Advanced Wildland Suppression | |  |
| FSC 239 Emergency Services Leadership and Management |  | |

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| Course Descriptions  FSC 135 (3)  Fundamentals of Fire Prevention Role and functions of fire prevention. Practical rather than theoretical aspects of fire prevention. Three lecture.    FSC 136 (4)  Fire Apparatus & Hydraulics  Principles of care, maintenance, and operation of fire apparatus and pumps. Pump construction, pumping and pump  accessories, power development and transmission, driving, trouble shooting, and producing effective fire streams.  Three lecture; two lab.    FSC 137 (.5)  Hazardous Materials Awareness  Provides the basic concepts and techniques related to hazardous materials first response. It is for those individuals who in  the course of their normal duties may be first on the scene of an emergency involving hazardous material. First  Responders at the awareness level are expected to recognize and identify a hazardous materials incident, protect  themselves, call for trained personnel, and secure the area. Fire Science and Paramedic students must take FSC 138.  One half or .5.    FSC 138 (4)  Hazardous Materials First Responder  Definition, detection, identification, scene management, basic training, equipment planning, strategy, and tactics in the management of hazardous materials incidents. Preparation for Department of Emergency Services certificate. For Fire  Science and Paramedic majors, the co-requisite is EMS 131. Four lecture.    FSC 180 (8)  Firefighter I & II  For the new firefighter or student interested in firefighting. Fire behavior and basic firefighting skills, with hands-on use  of firefighting equipment. Prerequisite: FSC 138 and \*EMS 131 or consent of Fire Science Coordinator and Fire Science Admission paperwork (available at the Registration and Enrollment Services desk). Six lecture. Four lab.    FSC 233 (4)  Introduction to Wildland Fire Suppression  Provides a fundamental knowledge of the factors affecting wildland fire prevention, fire behavior, and control techniques  along with an introduction to the Incident Command System. Covers material from, I-100, I-200, S-130, S-190, CPS, and  S-211. After completion, students may qualify for "Red Card" certification. Four lecture.    FSC 234 (3)  Fire Investigation  Methods of determining point of fire origin and fire cause, and detection of incendiary fires. Includes simplified physics  and chemistry necessary to analyze fire behavior. Three lecture.    FSC 235 (3)  Fire Protection Systems  Required standard for water supply, protection systems, automatic sprinklers, and special extinguishing systems, including analysis of various automatic signaling and detection systems. Prerequisite: \*FSC 180 or consent of instructor. Three lecture.    FSC 236 (3)  Firefighter Occupational Safety  Informational base to reduce injuries to fire fighting personnel. Awareness, training, and research of equipment to develop a safety program to meet the needs of the fire service. Three lecture.    FSC 238 (3)  Emergency Scene Management  Effective methods of managing emergency incidents including multiple alarm fires, high-rise fires, brush fires, hazardous materials incidents, and multi-casualty medical incidents. Includes effective interaction among numerous agencies to  achieve control. Prerequisite: \*FSC 180 or consent of instructor. Three lecture.    FSC 239 (4)  Emergency Services Leadership and Management  Basic principles for administrative management of emergency service organizations. Includes fundamental elements in supervision, leadership, group dynamics, decision making, organizational structure and legal obligations. Also includes  health and fitness, customer service and recovery efforts. Four lecture.    FSC 241 (3)  Firefighter Safety and Building Construction  Safety for firefighters on the fire ground. Effects of fire and heat on various types of building construction resulting in the  loss of structure will be explored. Includes signs and symptoms of structural damage. Three lecture.    FSC 243 (4)  Intermediate Wildland Fire Suppression  Instructions for Firefighter Type I training, wildland fire chain saw safety practices, and fire behavior prediction skills and knowledge. Course covers material from S-131, S-212, and S-290. After completion students may qualify for Red Card Certification. Prerequisite: FSC 233 or consent of insntructor. Four lecture.    FSC 253 (4)  Advanced Wildland Fire Suppression  Designed to train qualified squad bosses in firing techniques and firing devices along with advanced training in the  incident command system. Covers materials from P-110, S-215, S-234 Prerequisites: FSC 233 and FSC 243, or consent of instructor. Four lecture.    FSC 289 (1–6)  Internship I  Designed for students who are looking for paid or voluntary, practical learning experiences that apply academic and occupational education to real-life, on-the-job situations. Credit hours will be negotiated based on fulfillment of a contract.  Each credit hour requires the completion of a minimum 45 hours of on-the-job participation. Prior experience or course  work in the field of interest is required One to six variable credit hours. May be taken for S/U credit.    FSC 298 (1-6)  Special Topics  Designed to meet the needs of an individual(s) who has an interest in pursuing an original topic in an instructional area  under faculty supervision. One to six variable credit hours.    \*Courses may have additional pre or co requisite(s)  Certificate Requirements  The Fire Science Intermediate Certificate program is designed to introduce basic skills and to assist those who desire to  enhance their abilities on the job. Included in the curriculum are practical applications and knowledge. Students may apply credit hours earned in this program toward the Associate of Applied Science degree in Fire Science.     |  |  |  | | --- | --- | --- | | Intermediate Certificate Requirements: 26 credits | | | | Course | Course Title | Hours | | EMS 131 | Emergency Medical Technician | 8 | | FSC 135 | Fundamentals of Fire Prevention | 3 | | FSC 138 | Hazardous Materials/First Responder | 4 | | FSC 180 | Firefighter I and II | 8 | | FSC 236 | Firefighter Occupational Safety | 3 |   The Fire Science Advanced Certificate program is designed to introduce basic skills and to assist those who desire to  enhance their abilities on the job. Included in the curriculum are practical applications and knowledge. Students may apply the hours of this program toward the Associate of Applied Science degree in Fire Science.     |  |  |  | | --- | --- | --- | | Advanced Certificate Requirements: 49 credits | | | | Course | Course Title | Hours | | Completion of Fire Science Intermediate Certificate | | 26 | | BUS 111 or ENG 101 | Business English or College Composition I | 3 | | FSC 136 | Fire Apparatus and Hydraulics | 4 | | FSC 238 | Emergency Scene Management | 3 | | FSC 239 | Emergency Service Leadership and Management | 4 | | And 9 hours from any of the following: | | | | FSC 233 | Introduction to Wildland Fire Suppression | 4 | | FSC 234 | Fire Investigation | 3 | | FSC 235 | Fire Protection Systems | 3 | | FSC 241 | Firefighter Safety and Building Construction | 3 | | FSC 243 | Intermediate Wildland Fire Suppression | 4 | | FSC 253 | Advanced Wildland Fire Suppression | 4 |   Fire Science Degree AAS  The Fire Science Degree is designed to prepare students to enter the Fire Science profession by providing them with  knowledge and skills which can be used to enter a wide variety of positions. The program allows students the option  of selecting courses emphasizing emergency medical, fire suppression, or fire prevention.   |  |  |  | | --- | --- | --- | | Course | Course Title | Hours | | **Composition (6 credits)** |  |  | | ENG 101 | College Composition I | 3 | | ENG 102 | College Composition II | 3 | | **Mathematics (3 credits)** |  |  | | MAT 140 or higher. | College Mathematics with Algebra Review (5) or higher | 3 | | **Arts/Humanities (6 credits)** |  |  | | Two courses. | Two courses. | 6 | | **Social/Behavioral Sciences (6 credits)** |  |  | | Two courses. | Two courses. | 6 | | **Physical/Biological Sciences (4 credits)** |  |  | | Select one course from any of the following: | | | | BIO 100 | Biology Concepts | 4 | | BIO 105 | Environmental Biology | 4 | | BIO 181 | Unity of Life: Life of the Cell | 4 | | CHM 130 | Fundamentals of Chemistry | 4 | | CHM 151 | General Chemistry I | 5 | | PHY 111 | College Physics I | 4 | | **Requirements: 37 credits** | | | | Course | Course Title | Hours | | EMS 131 | Emergency Medical Technician | 8 | | FSC 135 | Fundamentals of Fire Prevention | 3 | | FSC 136 | Fire Apparatus and Hydraulics | 4 | | FSC 138 | Hazardous Materials First Responder | 4 | | FSC 180 | Fire Fighter I and II | 8 | | FSC 236 | Firefighter Occupational Safety | 3 | | FSC 238 | Emergency Scene Management | 3 | | FSC 239 | Emergency Services Leadership and Management | 4 | |  | | | | One course from EMS or FSC from the list below. | | 1-47 | | Any coursework from the following to complete 6 elective credit hours. | | 1-47 | | Course | Course Title | Hours | | BUS 204 | Business Communications | 3 | | BUS 206 | Principles of Management | 3 | | BUS 207 | Principles of Marketing | 3 | | BUS 211 | Human Resources and Personnel Management | 3 | | BUS 213 | Small Business Management | 3 | | EMS 262 | Certified Emergency Paramedic | 47 | | FSC 233 | Wildland Fire Suppression | 4 | | FSC 234 | Fire Investigation | 3 | | FSC 235 | Fire Protection Systems | 3 | | FSC 241 | Firefighter Safety & Building Construction | 3 | | FSC 243 | Intermediate Wildland Suppression | 4 | | FSC 253 | Advanced Wildland Suppression | 4 | |  |  |

## **Outcomes**

The outcomes identified below define the knowledge and skill sets that graduates of this program will possess at the end of their program of study.

Students who complete course work in the Fire Science program will be able to:

Evaluate hazardous and life threatening environments.

Establish a decontamination area to mitigate a hazardous material incident.

Select appropriate personal protective equipment.

Demonstrate skills necessary for basic firefighter survival.

Perform functions inherent to basic wildland firefighting.

Demonstrate skills necessary for basic fire apparatus and pump operations.

Demonstrate knowledge of incident management processes and procedures.

Develop effective written communication skills consistent with the fire service and related professional environments.

***The following table provided by Coconino Community College Institutional Research indicates multiple factors about course enrollment data for the past five years.***

**Enrollment as of Day 10 for each semester**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2010-11 | | | 2011-12 | | |
| Courses | #Sec | #Enr | Tuition\* | #Sec | #Enr | Tuition\* |
| **FSC** | **8** | **172** | **$53,680** | **15** | **213** | **$57,478** |
| FSC 135 - Fund. of Fire Prevention | 1 | 24 | $5,760 | 1 | 23 | $5,727 |
| FSC 136 - Fire Apparatus & Hydraulics | 1 | 24 | $7,680 | 1 | 20 | $6,640 |
| FSC 137 - Haz. Mat. Awareness |  |  |  | 4 | 45 | $1,868 |
| FSC 138 - Haz. Materials First Responder | 2 | 42 | $10,080 | 3 | 36 | $8,964 |
| FSC 180 - Firefighter I & II | 1 | 22 | $14,080 | 2 | 26 | $17,264 |
| FSC 233 - Intro. to Wildland Fire Suppr. | 1 | 21 | $6,720 | 1 | 16 | $5,312 |
| FSC 234 - Fire Investigation |  |  |  |  |  |  |
| FSC 236 - Firefighter Occ. Safety | 1 | 20 | $4,800 | 1 | 22 | $5,478 |
| FSC 238 - Emergency Scene Management | 1 | 19 | $4,560 | 1 | 13 | $3,237 |
| FSC 239 - Emerg Service Leadership/Mgmt |  |  |  | 1 | 12 | $2,988 |

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| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
|  | 2012-13 | | | 2013-14 | | |
| Courses | #Sec | #Enr | Tuition\* | #Sec | #Enr | Tuition\* |
| **FSC** | **14** | **227** | **$47,685** | **10** | **188** | **$62,814** |
| FSC 135 - Fund. of Fire Prevention | 1 | 23 | $5,865 | 1 | 25 | $6,525 |
| FSC 136 - Fire Apparatus & Hydraulics |  |  |  | 1 | 23 | $8,004 |
| FSC 137 - Haz. Mat. Awarenes | 6 | 86 | $3,655 |  |  |  |
| FSC 138 - Haz. Materials First Responder | 2 | 38 | $9,690 | 2 | 47 | $12,267 |
| FSC 180 - Firefighter I & II | 1 | 14 | $9,520 | 1 | 20 | $13,920 |
| FSC 233 - Intro. to Wildland Fire Suppr. | 1 | 13 | $4,420 | 1 | 18 | $6,264 |
| FSC 234 - Fire Investigation |  |  |  |  |  |  |
| FSC 236 - Firefighter Occ. Safety | 1 | 23 | $5,865 | 1 | 27 | $7,047 |
| FSC 238 - Emergency Scene Management | 1 | 18 | $4,590 | 1 | 11 | $2,871 |
| FSC 239 - Emerg Service Leadership/Mgmt | 1 | 12 | $4,080 | 2 | 17 | $5,916 |

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| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
|  | 2014-15 | | | 2015-16 | | |
| Courses | #Sec | #Enr | Tuition\* | #Sec | #Enr | Tuition\* |
| **FSC** | **9** | **174** | **$83,174** | **10** | **188** | **$87,968** |
| FSC 135 - Fund. of Fire Prevention | 1 | 24 | $8,208 | 1 | 26 | $8,346 |
| FSC 136 - Fire Apparatus & Hydraulics | 1 | 21 | $9,576 | 1 | 26 | $11,128 |
| FSC 137 - Haz. Mat. Awarenes |  |  |  |  |  |  |
| FSC 138 - Haz. Materials First Responder | 2 | 38 | $12,996 | 2 | 46 | $19,688 |
| FSC 180 - Firefighter I & II | 1 | 22 | $24,464 | 1 | 15 | $20,640 |
| FSC 233 - Intro. to Wildland Fire Suppr. | 1 | 25 | $11,400 | 1 | 14 | $6,552 |
| FSC 234 - Fire Investigation |  |  |  | 1 | 7 | $2,247 |
| FSC 236 - Firefighter Occ. Safety | 1 | 20 | $6,840 | 1 | 21 | $6,741 |
| FSC 238 - Emergency Scene Management | 1 | 11 | $3,762 | 1 | 14 | $4,494 |
| FSC 239 - Emerg Service Leadership/Mgmt | 1 | 13 | $5,928 | 1 | 19 | $8,132 |

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| --- | --- | --- | --- |
|  |  |  |  |
|  | Total #Sec | Total #Enr | Total Tuition\* |
| Courses |
| **FSC** | **66** | **1162** | **$392,799** |
| FSC 135 - Fund. of Fire Prevention | 6 | 145 | $40,431 |
| FSC 136 - Fire Apparatus & Hydraulics | 5 | 114 | $43,028 |
| FSC 137 - Haz. Mat. Awarenes | 10 | 131 | $5,523 |
| FSC 138 - Haz. Materials First Responder | 13 | 247 | $73,685 |
| FSC 180 - Firefighter I & II | 7 | 119 | $99,888 |
| FSC 233 - Intro. to Wildland Fire Suppr. | 6 | 107 | $40,668 |
| FSC 234 - Fire Investigation | 1 | 7 | $2,247 |
| FSC 236 - Firefighter Occ. Safety | 6 | 133 | $36,771 |
| FSC 238 - Emergency Scene Management | 6 | 86 | $23,514 |
| FSC 239 - Emerg Service Leadership/Mgmt | 6 | 73 | $27,044 |

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| --- |
| *\* Tuition Notes:* |
| *Tuition is based on in-state tuition rates* |
| *Differential Tuition began 2014-15* |

***Credentialing***

Students that successfully complete the program will meet the requirements to test for Arizona state approved certification as Firefighter I and II and Hazardous Materials First Awareness/Operations as outlined by the Arizona Center for Fire Service Excellence and Arizona Department of Emergency Management.

Graduating students completing FSC 233 will also meet the requirements, which once they are aligned with a fire agency, will allow them to gain the red card certification as Basic Wildland Firefighter as outlined by the National Wildfire Coordinating Group (NWCG) and National Parks Service (NPS).

***How often are course outlines reviewed and updated?***

Annually as a part of the Fire Advisory Council meetings

*Curriculum:*

Table 3 Course Outline and Content up-dates

All fire science classes are reviewed on an annual basis and as dictated by guiding entities that include: National Fire Protection Association (NFPA), International Fire Service Accreditation Congress (IFSAC), and National Wildfire Coordination Group (NWCG). Most recently, the Hazardous Materials Awareness/Operations course (FSC 138) had a curriculum update. The Fire and Emergency Services Leadership and Management course (FSC 239) was updated approximately 2 years ago.

*Articulation:*

Coconino Community College aligns the content of Fire Science AAS degree to the BAS transfer pathway in partnership with Northern Arizona University. This program allows students who have earned an Associate of Applied Science Fire Science degree from Coconino College to transfer up to 90 credit hours toward a Bachelor of Applied Science in Emergency Management to an Arizona public university.

*If applicable, is the program accredited by a programmatic accrediting agency? If so, name the agency and include the status of your most recent accreditation.*

Currently, the Arizona Center for Fire Service Excellence is the accredited entity for overseeing statewide Fire Fighter I and II courses. The Arizona Center for Fire Service Excellence and Arizona Department of Emergency Management are accrediting entities in Arizona for Hazardous Materials Awareness (FRA) and Operations (FRO) courses. Participation in this process for certification is voluntary but required by most every fire agency in Arizona.

*Teaching Loads:*

Instructors carry between 4 and 8 credit hour load per semester.

*SECTION3 – Staff, Resources, Facilities, and Funds*

*Internal factors:*

*What do you see as internal strengths of the program?*

Dedicated and experienced teaching staff.

Partnerships with local fire/ems agencies which provides most of necessary materials to administer high quality classes.

Graduated tuition schedule providing source funding for equipment, personnel, etc…

*What do you see as internal weaknesses of the program?*

Changes from state level accrediting agencies (Arizona Center for Fire Service Excellence, Arizona Department of Emergency Management) have increased financial burden on educational institutions.

Curriculum changes in Hazardous Materials classes have made delivery in the short term more difficult. Additional time and equipment is necessary.

A percentage of necessary equipment is reaching end of life. Replacement schedule will be necessary.

*List the recommendations from your last program review and any recommendations from Program Advisory Committees (if applicable).*

N/A

**SECTION 4—ANALYSIS AND RECOMMENDATIONS**

**Description**:

Students enter the Fire Science Program with the intent of obtaining various certification through training that ultimately will lead to a career in the fire service.

**Assessment:**

Final written and psychomotor skills examination by course instructors.

Written and psychomotor skills examination by Arizona Center for Fire Service Excellence.

***Challenges:***

Not all students and instructors feel there is an adequate amount of time spent on psychomotor skills practice. Limiting factors include:

Availability of equipment.

Adequate amount of assisting instructional help

Weather.

***Summary of Fire Science Program:***

While the Fire Science Program is quite challenging for most students we are able to achieve an approximate 86% overall first time certification rate for Fire Fighter I and II. Although the Hazardous Materials FRA/FRO class has an approximate 66% first time certification rate, current changes this past semester are designed to increase this number.

# ***Appendix A Examples of Course Syllabi***

**Coconino Community College Fall 2016**

**Instructor: 4 Credit Hours**

**Marc Goldberg Cell#699-3849**

**FSC 239**

***FIRE AND EMERGENCY SERVICES ADMINISTRATION***

**DESCRIPTION:**

This class is designed to prepare students to function in emergency services for various disciplines and levels in an organization. . Students will have their discipline specific skills increased by examining aspects of leadership, safety, customer service, health and fitness, recovery and other topics. It is recommended that students complete Fire Fighter I and II, IS-100 and IS-700 prior to enrolling in this class.

**TEXT and MATERIALS:**

There is no required text for the course. We will use a variety of textbook material, articles, handouts, audio, and videos.

**COURSE REQUIREMENTS:**

**Class Participation:** There are 14 lecture days (Wednesday of each week) that you are required to attend. You will be graded each day on prompt attendance and class participation. 10pts for being on time, 10pts for attendance, and 10pts for participation for a total of 30 points daily. This will make up the majority of your grade.

**Exams**: There will be one mid-term and one final exam. Questions may be true/false, multiple choice, short answer or essay in nature. Dates can be found on the class schedule. If you are unable to take the Mid-Term on time, a make-up date can be arranged **IF** the instructors are contacted prior to class. There is no make-up date if you miss the Final Exam. Each exam is worth 100 points.

**Time spent outside of class on coursework:**

For every 1 credit hour spent in class students should expect to spend a minimum of 2 hours outside of class (on homework, reading, test preparation). To successfully complete online courses, students should spend at least 6 hours a week. In addition, computer skills and access are required. Regardless of whether it is in person or online, compressed courses require more time.

**Page #2**

**GRADING SYSTEM:**

GRADING SCALE

Class Participation 14 x 30 pts A= 620-558

Exams 2 x 100 pts B= 557-496

C= 495-434

D= 433-372

F= <371

**POLICIES:**

**1. Drop Deadline:**

October 12th is the deadline for a student-initiated drop with a “W.”

**2. Attendance:**

This class will utilize both on-line and classroom instruction. See college policy for attendance requirements. Students should log onto Canvass weekly.

COCONINO COMMUNITY COLLEGE STATEMENTS

**LEARNING ASSISTANCE** Students can get assistance in the following: math, science, English/composition, accounting, statistics, business, Spanish, study skills, geography, computer applications, and research skills. Workshops are provided by assistants and or computer guided. Learning Enhancement Center

(226-4326), Student Computer Lab

(226-4357) on the Flagstaff Lone Tree Campus, or the Learning Support Center on the Flagstaff Fourth Street Campus (526-7670).

**INFORMATION RESOURCES AND LIBRARY SERVICES** Library services are available at Lone Tree (226-4385), Fourth Street (527-7670) and Page Campus (645-3987). Online research databases, copyright &

plagiarism information, research & college study tips workshops & handouts, ask a library question plus additional electronic library resources can be found on our library homepage @ [http://www.coconino.edu/library/](http://www.coconino.edu/library)

**ADVISING**

For general academic advising or

career assistance contact the

Student Support Services at

226-4323.

**EQUAL ACCESS**

Should a student enrolled in the

course require accommodations

due to a disability in order to complete the requirements of the course, contact the Coordinator for Disability Resources in the Student Center, or call (928) 226-4323; for the Page campus call 928-645-

3501 ext 6691.

**STUDENT CONCERNS**

If a student has a concern with an

instructor, the procedure is to discuss these concerns with the instructor. If no resolution, contact the instructor’s department chair.

**STUDENT CONCERNS AND CODE OF CONDUCT** Behavior that interferes with the

orderly functioning of the College, interferes with an individual’s

pursuit of education, or disrupts the learning environment is prohibited.

Sanctions include verbal admonitions, a written warning, disciplinary probation, loss of

privileges, suspension and expulsion. Refer to the Student

Handbook @

[www.coconino.edu/sa/studentsupp ort/Pages/default.aspx](http://www.coconino.edu/sa/studentsupport/Pages/default.aspx) for

complete information regarding the

Code of Conduct.

**CLASSROOM/COMPUTER POLICIES**

Only registered CCC students are

permitted to attend classes or use the computer lab; so please do not

bring children, friends, or other

family members into class or lab. Software may not be brought into the computer labs, copied, or loaded onto the computers.

Software installed on CCC computers may not be copied. To avoid damage to equipment,

please do not bring food or drinks

into any computer-equipped classroom.

**FINAL EXAM POLICY** CCC requires mandatory attendance for final exams or projects. Under no circumstances should students make travel, work, or other plans during the scheduled final exam period.

**DRUG -FREE COLLEGE ENVIRONMENT**

Coconino Community College is

committed to a drug-free environment. Please refer to [www.coconino.edu/president/poli cies/Pages/TOC.aspx](http://www.coconino.edu/president/policies/Pages/TOC.aspx) .

**SCHOOL CLOSURE**

Notice of cancellation of classes

will be announced on local radio, College homepage [www.coconino.edu](http://www.coconino.edu/) and CCC main phone number 928-527-

1222. This includes snow and/or other weather or emergency

situations.

**EMERGENCY PROCEDURES** Maps designating emergency/exits for each room are posted on walls in the hallways of our campuses. Please study the appropriate route for your room location. All other issues please contact Security at

226-4304

# ***Appendix A Examples of Course Syllabi***

***Coconino Community College***

**Firefighter I & II FSC 180**

**Fall 2016 Syllabus**

**Course Description** - For the new firefighter or student interested in *firefighting.* Fire behavior and basic firefighting skills, with hands on use of *firefighting* equipment.

**Instructors** - Michael Duran Cell# (928) 600-9042

E-mail: Mduran@coconino.edu

Torsten Palm Cell# (928) 853-8210

E-mail: Tpalm@coconino.edu

Chris Pond Celll# (928) 606-0566

E-mail: Cpond@coconino.edu

**Training Facilities-** Summit Fire Station #32526-9537

Flagstaff Station #3 526-2644

Highlands Station #21 525-1717

Pinewood Station #81 286-9885

The TBA classes is the student responsibility to ask the Instructor

**Days and Time-** Monday and Wednesday 6:00pm to 10:00pm

Saturday 8:00am to 5:00pm

On some week days we start early.(see class schedule)

Fee for Fire Fighter 1 and 2 State Certificate with IFSAC - $100.00 / Testing date TBA.

**Prerequisites** – EMT-B Completion, CPR for Health Care Providers, Haz-Mat First Responder and packet.

**Course Goals** - 1. To provide the student with the basic knowledge and skills necessary for an entry level firefighter position

2. To prepare the student for the Arizona State and IFSAC

certification testing.

**Text** – Essential of Fire Fighting 5th Edition

1.Textbook and the Workbook are required.

2.Firefighter 1 and 2 / Job Performance Requirements, required.

**Personal Protective Equipment** - Students are required to furnish instructor approved PPE including helmet, flash hood, coat, pants, boots, and gloves. A limited amount of PPE will be available on a first come first serve basis.

**Records** - Job Performance Requirements (JPR’s) will be the responsibility of the student and must be available at all times.

**Dress Code** - A red academy T-shirt, nomex, fire resistant or denim pants and tennis shoes or leather boots will be required for all classes. Sweatpants and running shoes are required for physical training. The student will purchase academy t-shirts.

**Class Conduct -**

1. Phones, pagers, and radios must be turned off or to silent mode

during class to prevent interruptions.

1. Cleanup of facilities and equipment will be required before students are dismissed at the end of each class.
2. Students will practice fire station etiquette during class time.
3. Students will be respectfully of instructor and other students, failure to comply will be dropped from class.
4. Students with disruptive behavior and/or causing a hostile environment in class are also grounds for expulsion.

**Attendance -** Due to the amount of hours required by the Fire Fighter 1 and 2 it is important that all classes are attended. The instructor must be notified prior to the class if the student will be absent or tardy. **Notification must be made to the scheduled instructor,** do not call the college or training facility to leave a message. **Student are required to also e-mail Michael Duran about absents (excused or unexcused).**

In accordance with college policy and Fire Fighter 1 and 2 requirements , a student will be dropped for (4) absences. Monday and Wednesday classes will each count as one day and Saturday classes will count as two days.

Tardiness/ If a student arrivals after the schedule class time or leave before the schedule time they are tardy for that class.

Three tardiness count as one absents. If a student arrivals after the schedule class time or leave before the schedule time they are tardy for that class.

Students will sign in at the beginning of each class, if you don’t sign you will be mark absent. Attendance of classes is required by IFSAC Certification Testing.

**Course Activities** –

1. Lecture 5. Hands-on practice

2**.** Discussions 6. Tests and quizzes

3. AV. Presentations 7. Physical training

4. Demonstrations

The course utilizes a class website to facilitate instruction. All CCC students have

access to the CCC computer lab if they do not have personal computer access. All

students are responsible to set up their college computer accounts. You should

contact the Information Services department for help.

**Grading System-**

(6) Quizzes worth 50 pts each.

(1) Mid-Term worth 100 pts.

(1) Final Exam worth 100 pts.

(1) Group Presentation worth 25 pts.

(1) Pre plan worth 25 pts.

(1) Home work

Intro 10 points

I 100 25 points

I 200 25 Points

I 700 25 Points

Part 1 25 Points

Part 2 25 Points

(1) Extra credit will be added to the final points.

(1) Performance Points **can be added** to the final grade. Instructor will evaluate the hands on part of class through AFMO JPR’s.

Grade Points

A=90%-100% 616 - 685

B=80%-89.9% 548 - 615

C=70%-79.9% 479 - 547

D=60%-69.9% 411 - 478

F=59.9% and below 410 and below

The student **must** have a **75% in the class** to take the Fire Fighter 1 and 2 exam. **75% = 513** points. Final grades will be posted on the Web CT and CCC web sites

***Fire Fighter 1 and 2 Exam***

The certification test will include a written test and *5* hands on practical skills tests. *70%* minimum passing grade for Firefighter 1 & 2 certification. The hand on skills test is pass or fail.

**Make –Ups.**

Makeup examinations are only given for provisions of illness or absence arranged in advance with the instructor. There are no make-ups for in class activities.

The instructors reserve the right to make additions, deletions, and modifications to the syllabus and course requirements with reasonable notification to the students enrolled.

### **Ethics -**

Cheating or plagiarism includes the copying of all or part of another's work and will not be tolerated. If you allow your work to be copied or make available to another student for this purpose you are also cheating. All parties involved will receive an “F “for the course. Cheating is grounds for expulsion. Disruptive student behavior is also grounds for expulsion.

Coconino Community College is committed to a drug free environment.

## Special Accommodations and Alternative Format -

Students requiring special accommodations to facilitate learning process should contact the Disability Resource Office at (928) 527-1222 ext. 243 or 1-800-350-7122 ext. 243 or 1-800-350-7122 (toll free in Arizona)

## Emergency Procedures -

Students are responsible for familiarize themselves with emergency exit routes posted at the door of each classroom.

## Inclement Weather -

Classes canceled due to bad weather will be announced over local radio stations for weekday classes. Weekend cancellations will be notified via a phone tree utilizing the Incident Command System. The students will complete an E-mail and phone list the first night of class for the instructors to use.