

Health Wellness & Public Safety Division
FIRE SCIENCE COURSE SYLLABUS

COURSE

FS 103—Introduction to Fire Science/3 Credit Hours/45 Theory Hours a Term

INSTRUCTOR'S NAME Mike Kavanaugh
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OFFICE LOCATION T-151
OFFICE HOURS/DAYS By Appointment

REQUIRED TEXTBOOK(s)

Introduction to Fire Protection, 2nd ed. Robert Klinoff, Delmar Publishers,
ISBN #0-7668-4960-0

COURSE DESCRIPTION

(Prerequisites: ENG 100 or Accuplacer Sentence Skills Score of 85 or equivalent, MATH 100A or Accuplacer Elementary Algebra Score of 76 or equivalent, RDG 100 or Accuplacer Reading Score of 80 or equivalent, or department approval)

Presents an overview of the fire protection system focusing on the history of the fire service, fire protection careers and employment requirements, fire service organizations, firefighting equipment and facilities, and chemistry and behavior of fire.

COURSE OBJECTIVES

❖ **Technical Objectives**

Students will be able to:

- Explain the student requirements for successful completion of the Albuquerque TVI Fire Science program.
- Explain successful academic strategies which may be employed by the students to achieve academic success in the Fire Science Program.
- Trace the Fire Service history and traditions from the beginning of the Fire Service to modern times.
- Define the common terminology used in the Fire Service.
- Define and explain career options within the Fire Service and related occupations.
- Identify the roles and responsibilities of the various organizations with interests in the Fire Service.
- Explain the types and functions of the various fire department facilities and apparatus.

❖ Work Place Objectives

Students will be able to:

- Develop problem solving skills.
- Be responsible for attendance and timely arrival in the work environment.
- Define the importance of being a member of a team.
- Recognize the importance of integrity/honesty.
- Recognize the importance of working with men and women from diverse backgrounds.

COURSE REQUIREMENTS/CALENDAR

COURSE CONTENT

<u>TOPICS</u>	<u>READING ASSIGNMENT</u>
Fire Technology Education and the Fire Fighter Selection Process	Chapter 1
Fire Protection Career Opportunities	Chapter 2
Exam I (Chapter 1 & 2)	
Public Fire Protection	Chapter 3
Chemistry and Physics of Fire	Chapter 4
Exam II (Chapter 3 & 4)	
Public and Private Support Organizations	Chapter 5
Fire Department Resources	Chapter 6
Exam III (Chapter 5 & 6)	
Fire Department Administration	Chapter 7
Support Functions	Chapter 8
Exam IV (Chapter 7 & 8)	
Training	Chapter 9
Fire Prevention	Chapter 10
Exam V (Chapter 9 & 10)	
Codes and Ordinances	Chapter 11
Fire Protection Systems and Equipment	Chapter 12

Exam VI (Chapter 11 & 12)

Emergency Incident Management

Chapter 13

Emergency Operations

Chapter 14

Final Exam

Key Train/WorkKeys®

The WorkKeys® Assessment and Key Train are required for successful completion of this class. Both are incorporated into the class and are part of your grade. Key Train is computer-based training and is available online.

Key Train:

Key Train is a comprehensive program to practice skills associated with ACT WorkKeys® Testing System. Using Key Train you can assess your potential WorkKeys® Score, review topics in each WorkKeys® skills area and practice problems similar to those an actual WorkKeys® assessment.

Skill Areas

Within KeyTrain you are required to complete skill areas. To complete the skill areas you must complete a pre test as well as all lessons associated with this class a check list is provided below.

Applied Mathematics:

Pre-Test

Applied Technology-Electricity:

Pre-Test

Applied Technology-Fluid Dynamics:

Pre-Test

Applied Technology-Mechanics:

Pre-Test

Applied Technology-Thermodynamics:

Pre-Test

Listening:

Pre-Test

Locating Information:

Pre-Test

Observation:

Pre-Test

Reading for Information:

Pre-Test

Teamwork:

Pre-Test

Writing:

Pre-Test

WorkKeys®

WorkKeys® is an exam that is accredited by ACT. The requirements for WorkKeys® is a test that is given by an approved administrator.

FINAL GRADE PROCESS

Successful completion of the course requires an overall average of 71 percent. An average of 71 percent is required for prerequisite and transfer credit. In addition to the class lectures outlined above, there will be guest speakers, videos, and local incidents may be reviewed. Attendance at lectures and participation in class discussions is mandatory. Students are encouraged to participate in fire service activities in the Albuquerque area.

ATTENDANCE POLICY:

Guidelines for attendance will follow those listed in the TVI Course Catalog. Attendance and participation in class activities is an important component of the course. Therefore, one point will be deducted from the final grade for each class date missed. It is the responsibility of the student to make-up all work missed as a result of absences. Except for emergency situations, make-up examination will be given if pre-arranged with the instructor before the absence. Any questions on attendance should be directed to the instructor for clarification.

GRADING SCALE:

A	91-100	F	Failing
B	81-90	I	Incomplete
C	71-80	AU	Audit
D	61-70	W	Withdrew

Being tardy five times or more will result in a reduction of your final grade.

Cell phones and pagers will be turned off during class. Any interruptions will result in a reduction to your grade.

Key Train/WorkKeys® 20%

Course assignments 20%

Unit tests 30%

Final Examination 30%

DIRECTOR'S APPROVAL

-----ON FILE-----

DATE

FIRE SCIENCE 103 WRITTEN REPORT

Due Date: _____

All Fire Science 103 students are required to complete an individual report as part of their final grade. This report will be about a Fire Department and is 15% of your final grade.

This report should reflect information covered during this semester. Use as a guideline *An Introduction to Fire Protection*.

It will be important that you make an appointment with a particular Fire Department contact person to retrieve information for your report. The number of pages will be up to you. The grade is based on content.

The report should be printed with cover page (i.e. title, your name, date, class, etc.), and should contain drawings, charts, picture, or interviews. The interview should not be of a relative or self. Take the time to interview and make a friend. If you are currently a member of a fire department you may not do your own department. This is a great way to introduce yourself to the fire service.

This is an individual assignment, not a group assignment.

If you have any questions, direct them to the instructor.



FIRE SCIENCE
 Associate of Applied Science Degree, 2005-2006 Catalog
 Graduation Evaluation Checklist

Full Legal Name		Student ID	
	Course	Course Name	Credit
_____	FITT 170 or 153	Physical Fitness I or CPAT	1
_____	EPT 214A	Occupational Safety I	1
_____	FS 103	Introduction to Fire Science *	3
_____	FS 104	Wildland Firefighting	3
_____	FS 112	Building Construction *	3
_____	FS 201	Fire Protection Systems *	3
_____	FS 203 A	Hazardous Materials I	1
_____	FS 220	Fire Protection Hydraulics and water supply	3
_____	FS 202	Managing Community Fire Protection *	3
_____	FS 214	Facilities Inspections	3
_____	FS 222	Fire behavior and combustion	3
_____	FS 224 A	Command Strategy and Tactics I	1
_____	FS 224 B	Command Strategy and Tactics II	1
_____	FS 224 C	Command Strategy and Tactics III	1
_____	FS 295	Fire Science Capstone coarse	1

For a total of 6 credit hours students will select any Fire Science, Criminal Justice*, EMS, Occupational Safety (EPT), Biological/ Physical Science course* and Foreign Language*, Humanities and Social/ Behavioral Science Course*.

_____	FS	203B	Hazardous Materials II	2
_____	FS	212	Fire Insvestigations	3
_____	FS	213	Industrial Fire Protection	3
_____	FS	297	Legal Aspects of the Fire Service	3
_____	FS	298	Fire Service Internship	3
_____	FS	299	Cooperative Education	3

Above to be filled in by Program Director or Advisor as to which elective courses have been completed

Computer Requirements:

_____	IT	101	Introduction to computers	3
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Arts & Science Requirements:

_____	CHEM	111*/112L	Introduction to Chemistry/Lab	4
_____	COMM	130*or higher*		3
_____	ENG	101	College Writing*	3
_____	ENG	119	Techincal Communications*	3
_____	MATH	119 or higher*		3-4
_____	SOC	101	Introduction to Sociology*	3
_____	SOC	216	Ethnic & Minority Groups	3

TOTAL CREDIT HOURS 62-63

* also available online

**NATIONAL FIRE ACADEMY
DEGREES AT A DISTANCE PROGRAM**

Cogswell College
1175 Bordeaux Drive
Sunnyvale, CA 94089
Phone: 408/541-0100
800/264-7955 ext. 105
Fax: 408/747-0764
STATES SERVED: AZ, CA, NV

University of Cincinnati
College of Applied Science
2220 Victory Parkway
Cincinnati, OH 45206
Phone: 513/556-6583
800/836-5377
Fax: 513/5564856
STATES SERVED: FL, GA, IN, MI, MN,
ND, OH, SD, WI

Western Oregon University
Division of Continuing Education
Monmouth, OR 97361
Phone: 503/838-8483
800/451-5767
Fax: 503/838-8473
STATES SERVED: AK, CO, HI, ID, MT,
OR, UT, WA, WY

University of Memphis
University College
Johnson Hall, G-1
Memphis, TN 38152
Phone: 901/678-2754
Fax: 901/678-4913
STATES SERVED: AL, AR, KY, LA, MS,
SC, TN

University of Maryland University College
University Boulevard at Adelphi Road
College Park, MD 20742
Phone: 301/985-7788
800/283-6832
Fax: 301/985-4615
STATES SERVED: DE, MD, NJ, NC, DC,
WV, VA

Western Illinois University
Extended Learning
401 Memorial Hall
Macomb, IL 61455
Phone: 309/298-2496
Fax: 309/298-2133
STATES SERVED: IL, IA, KS, MO, NE,
NM, OK, TX

SUNY Empire State College
Center for Distance Learning
2 Union Avenue
Saratoga Springs, NY 12866
Phone: 518/587-2100 ext. 300
800/847-3000
Fax: 518/587-2100 ext. 357
STATES SERVED: CT, ME, MA, NH,
NY, PA, RI, VT