

R E P O R T R E S U M E S

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HIGHER EDUCATION IN THE NATION'S FIRE SERVICE, INTERNATIONAL  
FIRE ADMINISTRATION INSTITUTE.

STATE UNIV. OF N.Y., ALBANY, CTR.FOR EXEC.DEVELOP.

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THIS PUBLICATION IS A REVISED AND UP-DATED EDITION OF A  
PUBLICATION, "FIRE SERVICE TECHNOLOGY CURRICULA SURVEY,"  
BASED ON A SURVEY CONDUCTED IN 1966 BY THE INTERNATIONAL FIRE  
ADMINISTRATION INSTITUTE FOR THE PURPOSE OF ASCERTAINING THE  
SCOPE OF THE FIRE EDUCATION PROGRAMS IN THE NATION'S  
INSTITUTIONS OF HIGHER LEARNING. A DIRECTORY OF INSTITUTIONS  
OF HIGHER LEARNING OFFERING COURSES IN FIRE SCIENCE LISTS 58  
SCHOOLS IN 18 STATES. CURRICULUM OFFERINGS IN FIRE SCIENCE  
ADMINISTRATION AND TECHNOLOGY ARE LISTED FOR 14 OF THESE  
PROGRAMS. BACKGROUND INFORMATION FOR IMPLEMENTING FIRE  
SCIENCE PROGRAMS IS GIVEN IN "COLLEGE AND UNIVERSITY  
PHILOSOPHY AND POLICY REGARDING NEW CURRICULA" AND  
"RECOMMENDATIONS FOR FIRE SCIENCE PROGRAM DEVELOPMENT AND  
IMPLEMENTATION." DIRECTORIES OF STATE FIRE TRAINING  
SUPERVISORS AND STATE FIRE MARSHALS AND A SUMMARY CHART OF  
FIRE SCIENCE-ADMINISTRATION COURSES AND A U.S. MAP SHOWING  
THEIR LOCATION ARE INCLUDED. THIS DOCUMENT IS AVAILABLE FOR  
\$2.00 FROM CENTER FOR EXECUTIVE DEVELOPMENT, STATE UNIVERSITY  
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STATE UNIVERSITY OF NEW YORK

INTERNATIONAL FIRE ADMINISTRATION INSTITUTE  
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H I G H E R E D U C A T I O N  
I N T H E  
N A T I O N ' S F I R E S E R V I C E

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Center for Executive Development  
State University of New York at Albany  
Albany, New York

February, 1968

**INTERNATIONAL FIRE ADMINISTRATION INSTITUTE  
SPONSORED BY THE INTERNATIONAL ASSOCIATION OF FIRE CHIEFS  
CHARTERED BY THE REGENTS OF THE STATE OF NEW YORK  
AFFILIATED WITH THE STATE UNIVERSITY OF NEW YORK AT ALBANY**

**PURPOSE:**

1. To engage in research and otherwise obtain material for the preparation of courses of study in fire administration and subjects related thereto, and to prepare such courses of study.

2. To make such material and courses of study in fire service administration and subjects related thereto available for use by educational institutions, particularly at the college level, in the United States and foreign countries, and to work with and assist educational institutions in the development of such material.

To give assistance by grants or establishment of scholarships, or otherwise, to students in the field of fire administration; and to receive grants and gifts for carrying out the objectives of the Institute.

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The general development and various phases of the work were prepared by Fred Zeitler, Research Assistant, and assisted by Kenneth Duffield and Autumn Osborne.

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We gratefully acknowledge the splendid cooperation received from the many colleges, universities and state agencies who supplied the information reflected in the publication.

D. F. F.

1968

## FOREWORD

The steady stirring of interest in, and enthusiasm for, systematic and deliberate programs of higher education for the fire service in the past two years is most significant. Powerful currents are flowing toward professionalizing the fire service .... toward enhancing the educational posture of the fire service .... toward increasing research efforts .... toward recruiting candidates with greater career potential.

The Wingspread Conference in 1966 provided a catalyst in the form of twelve statements of national significance to the fire problem in the United States; two of the statements were directly related to education, i. e., "Professional status begins with education," and "The scope, degree and depth of the educational requirements for efficient functioning of the fire service must be examined." These statements, though broad in scope, focused sharply on the current and dynamic knowledge explosion. The Wingspread spirit gained momentum at the Saratoga Symposium on Higher Education for the Fire Service, held in 1967. During the early part of 1967, the editors of Fire Engineering Magazine conducted a symposium of fire chiefs and educators to explore in depth the challenging years of the 1970's as related to the problem areas defined in the Wingspread Conference, the symposium findings were published in the September issue of Fire Engineering Magazine. President Johnson requested legislation be part of a national effort to reduce our shameful loss of life and property from fire (in 1967 12,200 persons died, property loss was \$2,070,000,000.). The Fire Safety and Research Act of 1967 was introduced in Congress (S 1124 - HR. 11284), Title II of the Act proposes the appointment of a national commission on fire prevention and control. The December 1967 issue of "Firemen", a publication of the National Fire Protection Association, contained an excellent article entitled "Education - Which Way for the Fire Service", which again pointed out the sense of urgency by all concerned on this problem.

It is estimated that some nine million students will be enrolled in institutions of higher education by 1975. The nation's two year colleges are expanding rapidly, the present enrollment of some eight hundred thousand is expected to double by 1974. The two year college holds much promise for those in the fire service seeking post-high school technical training and an academic setting where perhaps they will be motivated to go on to the final two years of college and the baccalaureate degree. The high school drop-out is today's lost man; tomorrow's lost men will be the college drop-outs.

The International Fire Administration Institute, responding to hundreds of requests for guidance and educational counseling, conducted a survey of the nation's institutions of higher learning for the purpose of ascertaining the scope of the fire education programs. The survey was completed and the findings published in November, 1966. The demand for this publication has been beyond our expectations and is now in its fifth printing. The publication, entitled "Fire Science Technology Curricula Survey, has been sent to fire departments, institutions of higher learning, labor organizations, federal and state agencies, libraries, fire chiefs, deans of academic institutions, and personnel representing various organizational levels of the fire service.

This new publication, "Higher Education in the Nation's Fire Service" is a revised and up-dated edition of the original publication mentioned above, and contains additional data valuable to fire executives and college administrators charged with the responsibility for developing and implementing programs of higher education.

Professor D. F. Favreau  
Executive Director  
International Fire Administration  
Institute  
State University of New York at Albany  
Albany, New York, 12203

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# SELECTED SAMPLING OF FIRE SCIENCE COURSES

## Colleges and Universities

Course Description	Allan Hancock College California	Auburn Community College New York	Antelope Valley California	Chaffey College California	Compton College California	Connecticut State Technical Institute	Forest Park C. C. Missouri	Glendale College California	Hudson Valley C. C. New York	Illinois Institute of Technology	Lansing Community College Michigan	Long Beach City College California	College of Marin California	University of Maryland Maryland	Milwaukee Inst. of Tech. Wisconsin	Monterey Peninsula Col. California	Mt. San Antonio College California	New York City C. C. New York	Oklahoma State University	Pasadena City College California	Racine Technical Inst. Wisconsin	Rio Hondo Jr. Col. California	Rowan Technical Inst. North Carolina	San Diego Jr. College California	San Jose City College California	College of San Mateo California	Santa Monica City Col. California	Santa Rosa Jr. College California	College of Sequoias California	Tacoma Voc. & Tech. Inst. Washington
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### FIRE SCIENCE & ADMINISTRATION - CORE COURSES

Course Description	Allan Hancock College	Auburn Community College	Antelope Valley	Chaffey College	Compton College	Connecticut State Technical Institute	Forest Park C. C.	Glendale College	Hudson Valley C. C.	Illinois Institute of Technology	Lansing Community College	Long Beach City College	College of Marin	University of Maryland	Milwaukee Inst. of Tech.	Monterey Peninsula Col.	Mt. San Antonio College	New York City C. C.	Oklahoma State University	Pasadena City College	Racine Technical Inst.	Rio Hondo Jr. Col.	Rowan Technical Inst.	San Diego Jr. College	San Jose City College	College of San Mateo	Santa Monica City Col.	Santa Rosa Jr. College	College of Sequoias	Tacoma Voc. & Tech. Inst.	
Protection and Prevention	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Fire Fighting-ics and Strategy	✓		✓		✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Fire Investigation and Arson	✓		✓	✓		✓	✓				✓				✓	✓	✓		✓		✓	✓		✓		✓	✓	✓	✓	✓	✓
General Aspects of Fire Science		✓			✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓					✓
Organization and Procedure				✓		✓					✓		✓	✓	✓	✓	✓	✓		✓		✓						✓			
Leadership and Supervision	✓	✓		✓		✓											✓	✓								✓					
Industrial and Hazardous Materials	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓					
Hydraulic Technology	✓		✓		✓	✓	✓			✓	✓		✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
Equipment and Apparatus	✓		✓	✓	✓	✓	✓			✓	✓		✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

### LIBERAL ARTS COURSES

Chemistry		✓	✓	✓	✓	✓					✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	
Physics		✓			✓	✓	✓			✓			✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓					✓	
Math.		✓				✓	✓			✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						
Social or Political Science	✓	✓		✓	✓		✓				✓		✓	✓	✓				✓		✓	✓	✓	✓							
Statistics	✓									✓								✓													
English and Communications		✓		✓	✓	✓	✓			✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

### ELECTIVES

Psychology		✓		✓	✓					✓			✓	✓	✓				✓		✓	✓										
Public Relations											✓								✓		✓											
Teacher Training	✓																															
Economics							✓			✓																						

### MISCELLANEOUS INFORMATION

Degree	AS	AAS	Non-Deg.	AA	AAS	AAS	AA	AA	Non-Deg.	BS	AS	AS	AS	BS	AAS	AS	AA	AAS	AS	AA	AAS	AA	AAS	AS	AA	Non-Deg.	AA	AA	AA
Number of Graduates	2	0	0	2	0	0	3	0	0	900	0	0	0	62	0	3	7	0	159	5	0	0	7	27	4	480	2	0	0
Number of Enrolled Students at 1/'68	28	30	32	146	30	181	49	37	88	197	60	180	80	68	89	40	225	125	39	85	20	100	150	279	300	175	69	128	80
Date Program Began	'64	'65	'61	'64	'66	'64	'65	'65	'67	'03	'67	'63	'64	'57	'64	'62	'57	'65	'37	'65	'65	'63	'64	'60	'58	—	'60	'62	'67



ARIZONA

Name of School Phoenix College Degree AA  
1202 West Thomas Road  
Address Phoenix, Arizona 85013 Semester Hours in Major 33  
Program Director Mildred B. Bulpitt No. of Students Enrolled INA  
Program Title Fire Science No. of Graduates To Date INA  
Date Program Began INA No. of Instructors INA

CALIFORNIA

Name of School Allan Hancock College Degree Associate of Science Degree  
800 South Bradley Road (AS)  
Address Santa Maria, Calif. Semester Hours in Major 47  
Program Director Brian McBride No. of Students Enrolled 28  
Program Title Fire Science No. of Graduates To Date 2  
Date Program Began Spring 1964 No. of Instructors 2 part-time

Name of School Antelope Valley College Degree Certificate  
Address Lancaster, Calif. Semester Hours in Major 21  
Program Director R. W. Lundak No. of Students Enrolled 32  
Program Title Fire Science No. of Graduates To Date --  
Date Program Began 1961 No. of Instructors 3

C A L I F O R N I A (Continued)

Name of School Butte Jr. College Degree AA and Certificate  
District  
Address 2060 3rd Street, Oroville Semester Hours in Major 42-45 quarter  
hours  
Program Director Earl P. McPhee No. of Students 60  
Program Title Fire Science No. of Graduates To Date - -  
Date Program Began September, 1967 No. of Instructors 3 part-time

Name of School Cabrillo College Degree AA and Certificate  
6500 Soquel Drive  
Address Aptos 95003 Semester Hours in Major 30  
Program Director John R. Hinton No. of Students Enrolled None  
Program Title Fire Science No. of Graduates To Date 0  
Date Program Began September 1967 No. of Instructors 0

Name of School Chaffey College Degree AA  
Address Alta Loma, California Semester Hours in Major 20  
Program Director R. L. Custer No. of Students Enrolled 146  
Program Title Fire Science No. of Graduates To Date 2  
Date Program Began 1964 No. of Instructors 20

C A L I F O R N I A (Continued)

Name of School City College of San Francisco Degree AA  
Address So. Phelan Ave., San Francisco Semester Hours in Major 38  
Program Director Alexander Potter No. of Students Enrolled 165- 98 pre-employment, 67 in-service  
Program Title Fire Science No. of Graduates To Date - -  
Date Program Began Fall 1966 No. of Instructors 6

Name of School College of the Desert Degree AS  
Address 43-500 Monterey Ave. Palm Desert, California Semester Hours in Major 23  
Program Director Don Welty No. of Students Enrolled 47  
Program Title Fire Science No. of Graduates To Date - -  
Date Program Began Sept. 1963 No. of Instructors 2

Name of School College of Marin Degree AS  
Address Kentfield Semester Hours in Major 30  
Program Director Joseph Berruezo No. of Students Enrolled 80  
Program Title Fire Science No. of Graduates To Date - -  
Date Program Began 1964 No. of Instructors part-time

C A L I F O R N I A (Continued)

Name of School College of San Mateo Degree Non-degree  
Address \_\_\_\_\_ Semester Hours in Major \_\_\_\_\_  
Program Director Bernard Gjerdrun No. of Students Enrolled 175  
Program Title Fire Science Training No. of Graduates To Date 480  
Date Program Began \_\_\_\_\_ No. of Instructors \_\_\_\_\_

Name of School College of Sequoias Degree AA or Certificate  
Address Mooney Blvd., Visalia, Calif. Semester Hours in Major 24  
Program Director S. W. Eggleston No. of Students Enrolled 80  
Program Title Fire Technology No. of Graduates To Date 0  
Date Program Began September 1967 No. of Instructors 1

Name of School Columbia Junior College Degree AA  
Address Sonora, California Semester Hours in Major 30  
Program Director R. W. Deal No. of Students Enrolled - -  
Program Title Fire Science No. of Graduates To Date - -  
Date Program Began January 29, 1968 No. of Instructors 3 (proposed)

C A L I F O R N I A (Continued)

Name of School Compton College Degree AAS  
Address 1111 E. Artesia Blvd.  
Compton, Calif. Semester Hours in Major 20  
Program Director Don A. Yowell No. of Students Enrolled 30  
Program Title Dept. of Fire Science No. of Graduates To Date - -  
Date Program Began Sept. 1966 No. of Instructors 10

Name of School Diablo Valley College Degree AA  
Address Diablo Valley  
Pleasant Hill, Calif. Semester Hours in Major 24  
Program Director Ward L. Cockerton No. of Students Enrolled 115  
Program Title Fire Science No. of Graduates To Date 5  
Date Program Began June 1, 1953 No. of Instructors 15

Name of School Fresno City College Degree AS  
Address 1101 University Ave.  
Fresno Semester Hours in Major 32  
Program Director C. E. Lackey No. of Students Enrolled 73  
Program Title Fire Science No. of Graduates To Date 3  
Date Program Began 1960 No. of Instructors 2

C A L I F O R N I A (Continued)

Name of School Glendale College Degree AA  
Address Glendale, Calif. Semester Hours in Major 20  
Program Director David C. Leek No. of Students Enrolled 37  
Program Title Fire Science No. of Graduates To Date - -  
Date Program Began 1965 No. of Instructors 1 (usually 3)

Name of School Hartnell College Degree AA and certificate  
Address 156 Homestead  
Salinas Semester Hours in Major 20  
Program Director Lyman C. Fowler No. of Students Enrolled 40  
Program Title Fire Science No. of Graduates To Date 80  
Date Program Began Fall 1966 No. of Instructors 2

Name of School Long Beach City College Degree AA, AS, and certificate  
Address Business & Technology Campus  
130 S.E. Pacific Coast Hwy. Semester Hours in Major 20  
Program Director Dale E. Taylor No. of Students Enrolled 180  
Program Title Fire Science No. of Graduates To Date - -  
Date Program Began Sept. 1963 No. of Instructors 4

C A L I F O R N I A (Continued)

Name of School Los Angeles Harbor College Degree AA  
Address 1111 Figueroa Place, Wilmington Semester Hours in Major \_\_\_\_\_  
Program Director Nicholas Zorotovich No. of Students Enrolled 240  
Program Title Fire Science No. of Graduates To Date 100  
Date Program Began 1958 No. of Instructors 5

Name of School Merced College Degree AA  
Address 3600 M Street  
Merced, Calif. Semester Hours in Major 20  
Program Director John Mehrens No. of Students Enrolled 30  
Program Title Fire Science No. of Graduates To Date None  
Date Program Began 1964 No. of Instructors 2

Name of School Modesto Junior College Degree AA and Certificate  
Address Modesto, Calif. Semester Hours in Major 30  
Program Director Louis A. Schwank No. of Students Enrolled 40  
Program Title Fire Science No. of Graduates To Date 0  
Date Program Began 1966 No. of Instructors 3

C A L I F O R N I A (Continued)

Name of School Monterey Peninsula Degree AS  
College  
Address 980 Fremont Semester Hours in Major 22  
Program Director Stephen A. James No. of Students Enrolled 40  
Program Title Fire Science No. of Graduates To Date 3  
Date Program Began 1962 No. of Instructors 2

Name of School Mt. San Antonio Degree AA  
College  
Address 1100 N. Grand Ave. Walnut Semester Hours in Major 20  
Calif. 91789  
Program Director Dr. Gilbert B. No. of Students Enrolled 225: 200 in-  
Stuckey service, 25 pre-service  
Program Title & Service No. of Graduates To Date 7  
Dept. of Public Safety/  
Date Program Began 1957 No. of Instructors 5

Name of School Palomar College Degree AA  
Address San Marcos, Calif. Semester Hours in Major 20  
Program Director James Soulas No. of Students Enrolled 32  
Program Title Fire Science No. of Graduates To Date 1  
Date Program Began 1958 No. of Instructors 2

C A L I F O R N I A (Continued)

Name of School Pasadena City College Degree AA  
Address 1570 E. Colorado Semester Hours in Major \_\_\_\_\_  
Program Director Victor E. Stephens No. of Students Enrolled 85  
Program Title Fire Science No. of Graduates To Date 5  
Date Program Began Sept. 1965 No. of Instructors 25

Name of School Rio Hondo Jr. College Degree AA  
Address 3600 Workman Mill Rd. Semester Hours in Major 20  
Program Director W. W. Lorbeer No. of Students Enrolled 100  
Program Title Fire Science No. of Graduates To Date 0  
Date Program Began Sept. 1963 No. of Instructors 4

Name of School Riverside City College Degree AA and certificate  
Address 3650 Fairfax Ave.  
Riverside, Calif. 92506 Semester Hours In Major 20  
Program Director Cecil D. Green No. of Students Enrolled \_\_\_\_\_  
Program Title Fire Science No. of Graduates To Date 0  
Date Program Began 1957 No. of Instructors varies

C A L I F O R N I A (Continued)

Name of School San Bernardino Valley/ <sup>College</sup> Degree AA  
Address 701 So. Mt. Vernon Ave.  
San Bernardino, Calif. Semester Hours in Major 3-6/semester  
Program Director Thurston B. Swartz No. of Students Enrolled 100  
Program Title Fire Science No. of Graduates To Date - -  
Date Program Began 1961 No. of Instructors 10

Name of School San Diego Jr. Colleges Degree AS and certificate  
Address 835-12th, San Diego Semester Hours in Major 28  
Program Director Kenneth Fawcett No. of Students Enrolled 279  
Program Title Fire Science No. of Graduates To Date 27  
Date Program Began Fall 1960 No. of Instructors 2 full time  
5 evenings

Name of School San Joaquin Delta Jr.  
College Degree AA  
Address 3301 Kensington Way  
Stockton, Calif. Semester Hours in Major 24  
Program Director E. T. Barnett No. of Students Enrolled 120  
Program Title Fire Science No. of Graduates To Date 0  
Date Program Began 1967 No. of Instructors 3

CALIFORNIA (Continued)

Name of School San Jose City College Degree AA and certificate  
Address 2100 Moorpark Ave.  
San Jose, 95114 Semester Hours in Major 29  
Program Director Howard Biebeshemer No. of Students Enrolled 300  
Program Title Fire Service No. of Graduates To Date 26  
Date Program Began 1958 No. of Instructors 5

Name of School Santa Ana College Degree AA  
Address 1530 W. 17 St.  
Santa Ana, Calif. 90712 Semester Hours 21  
Program Director Edwin M. Norvell No. of Students Enrolled 168  
Program Title Fire Science No. of Graduates To Date 50  
Date Program Began Sept. 1958 No. of Instructors 5

Name of School Santa Monica City / College Degree AA  
Address 1815 Pearl St.  
Santa Monica, Calif. 90406 Semester Hours in Major 40  
Program Director Fred S. Brierley No. of Students Enrolled 69  
Program Title Fire Science No. of Graduates To Date 2  
Date Program Began 1960 No. of Instructors 5

CALIFORNIA (Continued)

Name of School Santa Rose Jr. College Degree AA or certificate  
Address 1501 Mendocino Ave.  
Santa Rosa, 95401 Semester Hours in Major 17  
Program Director John J. Healy No. of Students Enrolled 128  
Program Title Fire Science No. of Graduates To Date unknown  
Date Program Began 1962 No. of Instructors 5

Name of School Shasta College Degree AA  
Address Redding, Calif. Semester Hours in Major 30  
Program Director Lloyd Livingston No. of Students Enrolled 60  
Program Title Fire Science No. of Graduates To Date 0  
Date Program Began Spring No. of Instructors 1

Name of School Yuba College Degree AA  
Address North Beale Rd.  
Marysville, Calif. Semester Hours in Major 20  
Program Director Dan R. Dillon No. of Students Enrolled 25  
Program Title Fire Science No. of Graduates To Date - -  
Date Program Began Spring, 1966 No. of Instructors 4



I L L I N O I S (Continued)

Name of School Rock Valley College Degree AS  
Address 3301 N. Mulford Rd.  
Rockville, Ill. Semester Hours in Major 48  
Program Director Al Andrews No. of Students Enrolled 67  
Program Title Fire Science No. of Graduates To Date - -  
Date Program Began 1967 No. of Instructors 1

M A R Y L A N D

Name of School University of Maryland Degree BS  
Address College Park, Md. 20740 Semester Hours in Major 30  
Program Director Dr. John L. Bryan No. of Students Enrolled 68  
Program Title Fire Protection Curri- No. of Graduates To Date 62  
culum  
Date Program Began 1957 No. of Instructors 3

Name of School Montgomery Jr. College Degree AA  
Address Rockville, Maryland 20850 Semester Hours in Major 27  
Program Director H. C. Boyle No. of Students Enrolled 100  
Program Title Fire Science No. of Graduates To Date 0  
Date Program Began 1967 No. of Instructors 3

M I C H I G A N

Name of School Lansing Community / College Degree AS and certificate  
419 N. Capitol Ave.  
Address Lansing, Mich. Quarter Hours in Major 57  
Program Director Edwin C. Bergmann No. of Students Enrolled 60  
Program Title Fire Science Technology No. of Graduates To Date - -  
Date Program Began Jan. 1967 No. of Instructors one

M I S S O U R I

Name of School Forest Park Community/ College Degree AA and certificate  
5600 Oakland Ave. 18-certificate  
Address St. Louis, Mo. 63110 Semester Hours in Major 40-AA  
Program Director Victor Reef No. of Students Enrolled 49  
Program Title Fire Protection Tech- No. of Graduates To Date 3  
nology  
Date Program Began 1965 No. of Instructors 4

N E V A D A

Name of School Nevada Southern Uni-/ iversity Degree AS  
Address Las Vegas, Nevada Semester Hours in Major 21  
Program Director Kenneth O. Johnson No. of Students Enrolled 45  
Program Title Fire Science No. of Graduates To Date - -  
Date Program Began Sept. 1967 No. of Instructors 2

NEW YORK

Name of School Auburn Community College Degree AAS  
Address Auburn, New York Semester Hours in Major 24  
Program Director Robert R. Gallo No. of Students Enrolled 30  
Program Title Fire Science No. of Graduates To Date - -  
Date Program Began Fall 1965 No. of Instructors 2

Name of School Hudson Valley C. C. Degree Certificate  
Address 80 Vandenburg Ave. Semester Hours in Major - -  
Program Director A. Granito No. of Students Enrolled 88  
F. McGarry  
Program Title Into. to Fire Science No. of Graduates To Date None  
Date Program Began Sept. 1967 No. of Instructors 2

New York City Community College of  
Name of School the City University of Degree AAS  
300 Say St. New York  
Address Brooklyn, N. Y. 11201 Semester Hours in Major 22  
Program Director Sylvan P. Stern No. of Students Enrolled 125  
Program Title Fire Science No. of Graduates To Date None  
Date Program Began Sept. 1965-evening No. of Instructors 6  
Sept. 1966-day

NEW YORK

Name of School Evening Division  
Onondaga Community College Degree Certificate  
Address 700 E. Water St., Syracuse, N.Y. Semester Hours in Major - -  
Program Director E. W. Flansburg No. of Students Enrolled 60  
Program Title Fire Science No. of Graduates To Date None  
Date Program Began Fall 1966-67 No. of Instructors 4

Name of School State University at Farm-/  
Ingdale Degree Certificate  
Address Farmingdale, Long Island, N. Y. Semester Hours in Major - -  
Program Director William H. Hewitt No. of Students Enrolled 100  
Program Title Fire Science No. of Graduates To Date none  
Date Program Began September, 1966 No. of Instructors 9

Name of School Suffolk C.C. College Degree AAS and certificate  
Address 533 College Rd.  
Selden, N. Y. 11784 Semester Hours in Major 39  
Compiled by Peter A. Spina No. of Students Enrolled 50  
Program Title Fire Science No. of Graduates To Date none  
Date Program Began Feb. 1967 No. of Instructors 2 to 3

NEW YORK (Continued)

Name of School Westchester C. C. Degree AAS  
Address 75 Grasslands Road  
Valhalla, N. Y. Semester Hours in Major 20  
Program Director Allen R. Fales No. of Students Enrolled 50  
Program Title Fire Science No. of Graduates To Date 0  
Date Program Began Sept. 1966 No. of Instructors 4

NORTH CAROLINA

Name of School Richmond Technical Inst. Degree AAS  
Address P.O. Box 1189, Hamlet, N. C. Quarter Hours in Major 37 + 22 in lab.  
Program Director Joe Nanny No. of Students Enrolled 31  
Program Title Science Fire Technology No. of Graduates To Date None  
Date Program Began Feb. 1967 No. of Instructors 5

Name of School Rowan Technical/ Institute Degree AAS  
Address P. O. Box #1555  
Salisbury, N. C. Semester Hours in Major 44  
Program Director R. G. McIntyre No. of Students Enrolled 150  
Program Title Fire & Safety Engineer- No. of Graduates To Date 7  
ing Tech. & Fire Science Tech.  
Date Program Began Sept. 1, 1964 No. of Instructors 3 - full  
8 - part time

O H I O

Name of School Cuyahoga Community Col. Degree AS  
2214 E. 14th St.  
Address Cleveland, Ohio 44115 Semester Hours in Major 29  
Program Director Dr. Fred C. Sutton No. of Students Enrolled 77  
Program Title Fire Technology No. of Graduates To Date none  
Date Program Began Sept. 1965 No. of Instructors 4

O K L A H O M A

Name of School Oklahoma St. University  
The Technical Institute Degree AS  
Address Stillwater, Oklahoma Semester Hours in Major 20  
Program Director D. W. Brown No. of Students Enrolled 39  
Program Title Fire Protection Tech. No. of Graduates To Date 159  
Date Program Began 1937 No. of Instructors 2

O R E G O N

Name of School Portland Community/ College Degree AS  
Address Portland, Oregon Quarter Hours in Major 67 - 79  
Program Director Donald Uppendahl No. of Students Enrolled 40  
Program Title Fire Protection Tech. No. of Graduates To Date None  
Date Program Began 1966 No. of Instructors 6

OREGON

Name of School	Salem Technical Vocat- ional Community College	Degree	<u>Associate Degree</u>
Address	4389 Satter Drive, N. E. Salem, Oregon 97303	Semester Hours in Major	<u>49</u>
Program Director	Willard B. "Skip" Emerson	No. of Students Enrolled	<u>15</u>
Program Title	Fire Protection Technology	No. of Graduates To Date	<u>5</u>
Date Program Began	<u>Sept. 1965</u>	No. of Instructors	<u>4</u>

T E X A S

Name of School South Texas Jr. College Degree AA  
Address #1 Main St.  
Houston, Texas 77002 Semester Hours in Major 24  
Program Director Alcus Greer No. of Students Enrolled 40  
Program Title Fire Administration & Tech. No. of Graduates To Date none  
Date Program Began Sept. 1965 No. of Instructors 10

U T A H

Name of School Utah Technical College Degree AS  
Address 1395 North 150 East  
Provo, Utah 84601 Semester Hours in Major INA  
Program Director Roger B. Honeyman No. of Students Enrolled INA  
Program Title Fire Science No. of Graduates To Date 0  
Date Program Began Anticipate Fall No. of Instructors INA  
1968

W A S H I N G T O N

Name of School Big Bend Community/ College Degree Non degree, AAS applied for  
Address Moses Lake, Wash. 98837 Quarter Hours in Major 40 hrs./qrtr.  
Program Director Geo. E. Conatore No. of Students Enrolled 15  
Program Title Fire Service Training No. of Graduates To Date none  
Date Program Began Sept. 1965 No. of Instructors 1

W A S H I N G T O N

Name of School Clark College Degree AAS  
Address Vancouver, Wash. Semester Hours in Major - - - -  
Program Director - - - - No. of Students Enrolled - - - -  
Program Title - - - - No. of Graduates To Date - - - -  
Date Program Began In planning stage No. of Instructors - - - -

Name of School Spokane Community/ College Degree AS  
Address E. 3403 Mission  
Spokane, 99202 Quarter Hours in Major 60  
Program Director H. C. Hunter No. of Students Enrolled 75  
Program Title Fire Science No. of Graduates To Date none  
Date Program Began Jan. 1964 No. of Instructors varied - 6

Name of School Tacoma Vocational-/ Technical Degree AA  
Address 1101 S. Yakima  
98405 Semester Hours in Major 81  
Program Director Paul K. Parkhurst No. of Students Enrolled 14  
Program Title Fire Service Training No. of Graduates To Date 20  
Date Program Began 2/1/65 No. of Instructors - - - -

W I S C O N S I N

Name of School Milwaukee Inst. of Technology Degree AAS  
Address 1015 No. 6th St. Semester Hours in Major 25  
Program Director Edwin Taibl No. of Students Enrolled 89  
Program Title Fire Technology No. of Graduates To Date - - -  
Date Program Began Sept. 1964 No. of Instructors 4

Name of School Racine Technical Inst. Degree AAS  
Address 620 Lake Ave. Semester Hours in Major 28  
Program Director Mr. Howard Heigl No. of Students Enrolled 20  
Program Title Fire Technology No. of Graduates To Date none  
Date Program Began Sept. 1965 No. of Instructors 3

SELECTED CURRICULA

FOURTEEN PROGRAMS

FIRE ADMINISTRATION

FIRE SCIENCE TECHNOLOGY

**Auburn Community College  
Auburn, New York**

**Program Title:** Fire Science Program  
**Director:** Robert Gallo, Director  
**Degree:** A A S  
**Date Program Began:** Fall 1965

**Major**

**Credit Hours**

Introduction to Fire Science  
Building Construction and Materials  
Essentials of Fire Prevention  
Municipal Water Supplies  
Fire Administration  
Fire Administration and Law

6  
6  
3  
3  
3  
3  
3  
24

**Non-major**

Freshman English  
Effective Speech  
Introduction to Chemistry  
Technical Physics  
Essentials of American National Government  
Principles of Human Behavior  
Freshman Mathematics I  
Electives

6  
3  
6  
8  
3  
3  
3  
4  
4  
36

**City University of New York**  
**New York Community College of Applied Arts and Sciences**  
**300 Say Street**  
**Brooklyn, New York**

**Program Title: Fire Science**  
**Director: Sylvan P. Stern**  
**Degree: A A S**  
**Date Program Began: September 1965**

**Major**

**Credit Hours**

**Systems of Construction**  
**Building and Fire Codes**  
**Fire Hazards and Controls I & II**  
**Hydraulics**  
**Fire Department Administration**

**3**  
**3**  
**6**  
**4**  
**3**  


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**19**

**Non-major**

**English Composition**  
**Mathematical Analysis I & II**  
**Physics I & II**  
**Introduction to Psychology**  
**General Chemistry I & II**  
**Personnel Psychology**  
**Effective Speaking or )**  
**Voice and Diction )**  
**Statistics**  
**Chemistry of Hazardous Materials**  
**Electives**

**3**  
**8**  
**8**  
**3**  
**8**  
**3**  
  
**3**  
**3**  
**3**  
**9**  


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**51**

Compton College  
1111 E. Artesia Boulevard  
Compton, California

Program Title: Department of Fire Science  
Director: Don A. Yowell  
Degree: A.A.S.  
Date Program Began: September, 1966

Major

Credit Hours

Introduction to Fire Protection  
Introduction to Fire Supression  
Fundamentals of Fire Prevention  
Fire Fighting Tactics and Strategy  
Fire Protection and Equipment Systems  
Related Codes and Ordinances  
Fire Hydraulics  
Fire Apparatus and Equipment  
Fire Company Organization and Procedure  
Rescue Practices

3  
3  
3  
3  
2  
3  
3  
3  
3  
3  
3  
29

Non-Major

Reading and Composition  
Political and Social History of the U. S.  
Chemistry  
Introduction to Physics  
Health Education  
Body Building  
Introduction to Life Science  
General Psychology  
Public Speaking  
English Literature  
Introduction to Philosophy  
Physical Education

6  
6  
5  
3  
2  
1  
4  
3  
3  
3  
3  
1  
40

**Cuyahoga Community College  
Brownell Science and Technology Building  
2214 E. 14 Street  
Cleveland, Ohio**

**Program Title: Fire Technology**  
**Director: Dr. Fred C. Sutton**  
**Degree: Associate Degree**  
**Date Program Began: September, 1965**

**Major**

**Credit Hours**

Organization for Fire Protection	2
Fire Fighting Tactics	3
Fire Protection Systems	3
Fire Fighting Tactics and Command	3
Chemistry of Hazardous Materials	4
Fire Prevention Practices	4
Fire Investigation Methods	2
Fire Hydraulics	3
Municipal Public Relations	2
Personnel Training Methods	3
	<u>29</u>

**Non-major**

English	3
Intermediate Algebra	3
Social Science	6
Introductory Physics	4
Practical Psychology for Supervision	3
Principles of Public Speaking	3
Introductory Chemistry	4
Health or Physical Education	2
Humanities or Social Science	6
	<u>34</u>

**Illinois Institute of Technology  
Chicago, Illinois**

**Program Title:** Fire Protection Engineering  
**Director:** Rolf Jensen  
**Degree:** Bachelor of Science in Fire Protection Engineering  
**Date Program Began:** 1903

<u>Major</u>	<u>Credit Hours</u>
Fire Insurance Schedule Rating	4
Fire Protection Engineering Laboratory	4
Property Insurance	2
Fire Protection	3
Casualty Insurance	2
Public Fire Protection	3
Industrial Hazard Control	6
Electrical Hazard Control	3
Extinguishing and Detection Circuit	6
Fire Protection Engineering Application	1
	<hr style="width: 100%; border: 0.5px solid black;"/> 34
<u>Non-Major</u>	
Analy. & Calculus	4
Electricity and Magnetism	4
Principles of Economics	6
Thermodynamics	4
Differential Equations	4
Atomic Physics	3
Statics and Dynamics	4
Strength of Materials	4
Organic Chemistry	4
Programming for Digital Computer	2
Fluid Mechanics	3
Electronic Processes in Materials	3
Heat & Mass Tran.	3
American Constitutional System	3
Liberal Studies Elective	3
Electrical Circuit Analysis	3
Humanities Elective	3
Engineering Electronics	4
Liberal Arts Elective	3
	<hr style="width: 100%; border: 0.5px solid black;"/> 67

Milwaukee Institute of Technology  
1015 North Sixth Street  
Milwaukee, Wisconsin

Program Title: Fire Technology  
Director: Edwin S. Taibl  
Degree: Associate in Applied Science  
Date Program Began: September 1964

Major:

Credit Hours

Fire Protection Organization  
Fire Fighting Tactics and Strategy  
Chemistry of Hazardous Materials  
Building Construction and Fire Ordinances  
Fire Investigation  
Fire Prevention  
Fire Protection Equipment and Systems  
Methods and Practices  
Fluid Power Fundamentals

2  
6  
3  
3  
3  
3  
3  
3  
4  
30

Non-major

Communication Skills  
Technical Mathematics  
Chemistry I  
American Institutions  
Technical Science  
Mechanics of Materials  
Psychology of Human Relations  
Business and Industrial Relations  
Physical Education

6  
8  
5  
3  
6  
3  
3  
3  
1  
38

Montgomery Junior College  
Rockville, Maryland 20850

Program Title: Fire Science  
Director: H. C. Boyce  
Degree: A A  
Date Program Began: 1967

Major

Credit Hours

Orientation  
Fire Protection Organization  
Fundamentals of Fire Suppression  
Fire Service Administration  
Building Codes and Construction  
Fire Prevention and Inspections  
Hazardous Materials  
Fire Service Hydraulics and Water Supply  
Advanced Fire Tactics and Strategy  
Fire Detection and Suppression Systems

1  
3  
3  
3  
3  
3  
3  
3  
3  
3  

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28

Non-Major

General Chemistry  
Techniques of Reading and Writing  
Math  
Physical Education  
Political Science  
General Psychology  
Fundamentals of Speech  
Human Relations in Management  
Humanities

8  
6  
3  
4  
6  
3  
3  
3  
3  

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39

Oklahoma State University  
The Technical Institute  
Stillwater, Oklahoma

Program Title: Fire Protection Technology  
Director: D. W. Brown  
Degree: Associate Degree in Fire Protection Technology  
Date Program Began: 1937

Major

Credit Hours

Fire Hazards and Causes  
Principles of Fire Inspection  
Fire Protection  
Fire Codes and Standards  
Industrial Fire Hazards  
Fire Protection Hydraulics  
Fire Extinguishing and Alarm Systems  
Automatic Sprinklers  
Water Supply Analysis  
Fire Inspection Practices

2  
2  
2  
2  
2  
2  
2  
2  
2  
2  
20

Non-major

Technical Mathematics  
General Chemistry  
Architectural Drawing and Plan Reading  
Personal and Occupational Guidance  
Freshman Composition  
Basic Electricity Codes and Inspections  
Industrial Safety Engineering  
General Insurance  
Challenge in American Democratic Life  
Applied Physics  
American Industrial Development  
Introduction to Public Speaking  
Property and Casualty Insurance

5  
8  
4  
1  
6  
3  
2  
3  
4  
4  
2  
3  
3  
48

**Racine Technical Institute  
620 Lake Avenue  
Racine, Wisconsin**

**Program Title: Fire Technology**  
**Director: Mr. Howard Heigl**  
**Degree: A A S**  
**Date Program Began: September, 1965**

**Major**

**Credit Hours**

Fire Protection Organization	2
Fire Fighting Tactics and Strategy I	3
Chemistry of Hazardous Materials	3
Fire Fighting Tactics & Strategy II	3
Building Construction & Fire Ordinances	3
Fire Investigation	3
Fire Prevention	2
Fire Protection Equipment & Systems	3
Methods and Practices	3
Industrial Hydraulics	4
	<hr/>
	29

**Non-major**

Technical Math. 1 and 2	8
Communication Skills	3
Chemistry	5
American Institutions	3
Technical Readings & Reprints	3
Technical Physics 1 and 2	7
Mechanics of Materials	3
Psychology of Human Relations	3
Business & Industrial Relations	3
Physical Education	1
	<hr/>
	39

**Rowan Technical Institute**  
**Interstate Highway 85 at Klumac Road**  
**Post Office Box 1555**  
**Salisbury, North Carolina**

**Program Title:** Fire Safety Engineering Technology  
**Director:** R. G. McIntyre  
**Degree:** Associate in Applied Science  
**Date Program Began:** September 3, 1964

**Major**

**Credit Hours**

Introduction to Fire Protection Hazards	3
Municipal Fire Protection	3
General Insurance	3
Construction Codes and Material Rating	5
Fire Fighting Strategy	3
Chemistry of Flammable Materials	4
Insurance Grading Schedules	3
Industrial Hazards and Fire Prevention	4
Multiple Line Insurance and Rating Schedules	4
Hydraulics & Water Distribution	4
Inspection Principles & Practices	5
Fire Protection Law	3
Sprinkler and Standpipe Systems	4
Automatic Alarm & Extinguishing System	4
Chemical and Radiation Hazards	4
Industrial Safety and Security	3
	59

**Non-major**

Grammar	3
Technical Mathematics	10
Physics: Properties of Matter	4
Technical Drafting	4
Composition	3
Physics: Work, Energy, Power	4
Report Writing	3
Physics: Electricity	4
Chemistry	5
Oral Communications	3
Social Science I and II	6
	49

**Salem Technical Vocational Community College**  
 4389 Satter Drive N. E.  
 Salem, Oregon

**Program Title:** Fire Protection  
**Director:** Willard B. "Skip" Emerson  
**Degree:** Associate in Science

**Major**

**Credit Hours**

Introduction to Fire Protection	3
Fire Apparatus and Equipment	3
Blueprint Reading for Firemen	3
Physical Science for Firemen	4
Fundamentals of Fire Prevention	3
Firefighting Skills I	3
Hazardous Materials I	3
Firefighting Skills II	3
Hazardous Materials II	3
Rescue and Emergency Care	4
Fire Department Hydraulics	4
Fire Company Organization and Duty Assignments	3
Pump Operations and Practical Hydraulics	3
Introduction to Fire Department Administration	3
Fixed Systems and Extinguishers	3
Firefighting Tactics and Strategy	3
Communications and Alerting Systems	3
Water Distribution Systems	3
Fire Investigation	4
Building Construction for Fire Protection	3
	<hr style="width: 100%; border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> 64

**Non-major**

Introduction to Psychology	3
Mathematics	6
Communication	3
The Physical World	6
Communication Skills	3
Psychology of Human Relations	3
American Institutions	3
Technical Report Writing	3
	<hr style="width: 100%; border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> 30

South Texas Junior College  
#1 Main Street  
Houston, Texas 77002

Program Title: Fire Administration and Technology  
Director: Alcus Greer  
Degree: Associate in Arts  
Date Program Began: September 1965

<u>Major</u>	<u>Credit Hours</u>
F Ad. 131 Fire Administration I	3
F.Ad. 132 Fire Administration II	3
F.Ad. 133 Fire Protection Equip. and Alarm Systems	3
F.Ad. 231 Fire Prevention and Investigation	3
F.Ad. 233 Fire Fighting Tactics	3
F.Ad. 134 Supervision and Organization	3
F.Ad. 232 Fundamentals of Fire Insurance	3
	<u>21</u>

Non-major

Eng. 131 Rhetoric and Composition	3
Hist. 135 U. S. History	3
Psy. 131 Effective Reading and Study	3
E. Dr. 121 Engineering Graphics	2
Eng. 132 Rhetoric and Composition	3
Hist. 136 U. S. History	3
Spch. 131 Fundamentals of Speech	3
Math. 130 Intermediate Algebra	3
E. Dr. 122 Descriptive Geometry	2
Eng. 231 English Literature or Equivalent	3
Gov. 233 American Government	3
Gov. 234 American Government	3
Spch. 132 Public Speaking	3
D. P. 131 Introduction to Data Processing	3
	<u>40</u>

**Tacoma Vocational and Technical Institute  
1101 South Yakima Avenue  
Tacoma, Washington 98405**

**Program Title: Fire Science Technology**  
**Director: Bruce Brennan**  
**Degree: Associate Degree in Technical Arts**  
**Date Program Began: February, 1965**

**Major**

**Credit Hours**

<b>Fire Service History and Organization</b>	<b>60</b>
<b>Apparatus and Equipment</b>	<b>70</b>
<b>Water Distribution Systems</b>	<b>15</b>
<b>Fire Prevention</b>	<b>150</b>
<b>Fire Fighting Tactics</b>	<b>200</b>
<b>Fire Protection Equipment and Systems</b>	<b>30</b>
<b>Fire Hydraulics</b>	<b>60</b>
<b>Fire Science</b>	<b>60</b>
<b>Fire Alarm Systems and Communications</b>	<b>20</b>
<b>Radiological Hazards</b>	<b>15</b>
<b>Fire Investigation and Detection</b>	<b>30</b>
	<b><u>710</u></b>

**Practical Instruction**

<b>Fire Department Equipment Practices</b>	<b>820</b>
<b>Rescue Evolutions</b>	<b>60</b>
<b>Portable Fire Extinguishers</b>	<b>8</b>
<b>Fixed Fire Protection Systems</b>	<b>10</b>
<b>Fire Alarm Systems and Communications</b>	<b>30</b>
<b>Radiological and Hydrocarbon Detection Devices</b>	<b>16</b>
<b>Safe Driving Practices</b>	<b>60</b>
<b>Fire Investigation and Detection</b>	<b>10</b>
	<b><u>1014</u></b>

**Non-Major**

<b>Safety and First Aid</b>	<b>30</b>
<b>Oral and Written Communications</b>	<b>35</b>
<b>Human Relations</b>	<b>35</b>
	<b><u>100</u></b>

University of Maryland  
College Park, Maryland  
Revised Curriculum effective February 1, 1968

Program Title: Fire Protection  
Director: John L. Bryan  
Degree: Bachelor of Science  
Date Program Began: September 1967

		<u>Semester</u>	
		<u>I</u>	<u>II</u>
<u>Freshman Year</u>			
MATH 19	Elementary Analysis	4	
MATH 20	Calculus I		4
CHEM. 1, 3	General Chemistry	4	4
ENES 1	Introductory Engineering Science	3	
ENES 10	Mechanics		3
PHYS 30	General Physics I		3
	General Education Requirement	3	3
HLTH 2	Personal and Community Health	2	
	Physical Activities	1	1
<b>TOTALS</b>		<u>17</u>	<u>18</u>
<u>Sophomore Year</u>			
	General Education Requirement	3	3
MATH 21,22	Calculus II, III	4	4
PHYS 31,32	General Physics II, III	4	4
ENES 20	Mechanics of Materials		3
ENES 21	Dynamics	3	
ENFP 80	Fire Protection Organization	3	
ENFP 90	Essentials of Fire Protection		3
<b>TOTALS</b>		<u>17</u>	<u>17</u>
<u>Junior Year</u>			
	General Education Requirement	3	3
ENEE 50	Fundamentals of Electrical Engineering		3
ENES 30	Materials Science or	3	
ENCE 50	Fundamentals of Engineering Materials		
ENCE 112	Applied Mathematics in Engineering or	3	
MATH 66	Differential Equations		
ENCE 105	Fluid Mechanics		3
ENFP 110	Installations and Equipment	3	
ENFP 112	Fire Protection Fluids and Systems		3
ENFP 115	Water Suppression Systems		3
ENFP 120	Construction Fundamentals and Ins. Sched.	3	
	Approved Electives*	2-3	2-3
<b>TOTALS</b>		<u>17-18</u>	<u>17-18</u>

\*Note 1: Approved Electives may be Technical Electives or approved upper division courses from the Department of Psychology, Sociology, Economics, Business and Public Administration, or Industrial Education.

**University of Maryland (Continued)**

<u>Senior Year</u>		<u>Semester</u>	
		<u>I</u>	<u>II</u>
	General Education Requirement	3	3
BSAD 191	Property Insurance		3
ENME 100	Thermodynamics	3	
ENCE 100	Engineering Analysis & Computer Program	3	
ENCH 142	Environmental Consideration of Nuclear Eng.		3
ENFP 111	Process and Transportation Hazards		3
ENFP 114	Fire Analysis	3	
ENFP 116	Problem Synthesis and Design	3	
ENFP 117	Technical Projects		3
	Approved Technical Electives **	3	3
<b>TOTALS</b>		<u>18</u>	<u>18</u>

**\*\*Note 2: Approved Technical Electives must be upper division courses offered in the College of Engineering, mathematics, or physics. Total credit hours required for graduation, excluding physical education and health: 135-137.**

**COLLEGE AND UNIVERSITY PHILOSOPHY AND POLICY**  
**REGARDING NEW CURRICULA**

Rapid developments in all fields have over the last ten years increased astonishingly the requests of various groups for recognition of their educational needs in the nation's institutions of higher learning. The scope of collegiate instruction, research and service thus has expanded more since World War II than during any previous 25 year period. New publics, new programs and new policies characterize and dramatize the change. The general array of curricula and courses presented here gives simple testimony.

However, many community colleges, particularly, the senior colleges, and the graduate schools have been hard pressed to find resources, facilities and personnel to respond. At the same time they have in many places found it difficult to revise the concepts of higher education which have given direction to choice to what they will do over recent decades, not to speak of centuries. Wherein there are gaps, then, in areas or institutional types in this report, there are doubtless many and good reasons.

At the same time, one must recognize institutions of higher learning have on the whole not adapted easily to the needs of the application world, and those who would obtain recognition have not seldom found the route to approved courses and programs and degrees an easy one. Those who control most collegiate institutions, the faculties in the respected disciplines, have not yielded to a broad spectrum of petitioners without careful consideration and intensive searching. They have tended to guard jealously the limits of the subject matter appropriate and to require full evidence that competence for certain vocational and semi-professional tasks cannot be acquired under other auspices.

Albeit, the new breed of professor in institutions of higher learning is quite aware of the growing demand for higher skill, increased judgment, and more theoretical foundation for effective performance in many old and many more new areas of service. He is, as well, aware of the impact of further education upon the economic and human condition of the society. He is sympathetic to the upward reach of the technicians and the quasi-professionals and is particularly conscious of the general swell of ambition to be further educated, specially and generally, in vast numbers, not only of our youth, but of those who have but recently launched upon lifelong commitment.

Yet, the decision making bodies in most institutions rely upon relatively common reference points in acting upon requests which come to them from groups who feel the time has come for collegiate recognition. As those who would improve the fire service and would obtain collegiate cognizance of their need prepare proposals, it should be useful for them to keep in mind that

1. Generally, courses of study and curricula in collegiate institutions require a basis in theory and employ a teaching method which calls

upon the intellectual processes for critical examination of this theory and for appraisal of possible alternatives in application. Although selected disciplines rely heavily upon demonstration and require the development of skills appropriate to higher order application, the usual sentiment is opposed to programs which are essentially focused upon the development of manual skills.

2. Recognition and specification of the theoretical base and emphasis upon competence in higher order intellectual skills have thus been sought by collegiate faculty in the proposals and materials presented by those who wish academic sponsorship. The stated objectives of courses and programs have been examined carefully by college curriculum committees and evidence of the level of instruction searched for in content outlines and recommended resources.
3. These items reveal in themselves the need for personnel authoritatively equipped to deal effectively with instructional level anticipated. It goes without saying that in an incipient professional group there are many with not only vocational knowledge and skills but substantial command of more esoteric and complex components of proper education of technicians and professionals. Unfortunately, such competence does not, as a rule, find acceptance in the university family. Faculties of collegiate institutions recognize the occasional lack in those who possess academic credentials in the form of degrees, but institutions of higher education seldom will compromise on their expectation to have degree holding instructors responsible for courses recognized as of collegiate quality. Those outside colleges and universities usually do not recognize this protective policy. Neither, of course, do they know that respectable and acceptable colleges are accredited and need to meet certain faculty standards before degrees will be accepted generally, and particularly for transfer to other institutions and to advanced programs. This fact of university life is indeed disturbing to some, yet there is also widespread recognition that it protects both quality and student.
4. Institutions are also concerned about the nature of the clientele to be served. After the Second World War higher educational institutions did find that thousands of G I's who had not finished high school could qualify for college attendance by examination. Since then most institutions have accepted a variety of alternatives to four year diplomas granted for high school attendance. The route is open. However, this does not mean that higher educational institutions are willing to accept those with less than capacity to do the intellectual tasks traditionally required. Programs are consequently examined in terms of what clientele is considered in the resource pool and evidence is requested with respect to the ability of prospective students to compete in

studentship with those registered in other programs offered. With this naturally goes the question of the extent and of the continued sufficiency of the resource pool. Many institutions have offered courses, employed instructors, and developed courses and materials only to find that the promised volume of ambitious students was not forthcoming. Such institutions are not easily convinced subsequently of the great appetite for further education in new plaintiffs.

5. Colleges and university staffs, as a result, expect the following procedures to be used in developing proposals for their consideration.
  - a - Accumulation of sound descriptive and statistical evidence that growth in complexity and technical demand in the special field clearly call for increased numbers of those upon whom there are requirements for the use of higher order intellectual attributes.
  - b - Detailed analyses and translation of those attributes (skills, knowledge, understanding, attitudes) into terms meaningful for course of study development and program organization at the college level.
  - c - Promotion of and attainment of widespread support in voluntary organizations representative of and related to the activity; e. g., International Association of Fire Chiefs, The Society of Fire Department Instructors, State Chiefs Organization, and Fire Fighter Unions and Associations.
  - d - Intensive involvement of official bodies and units vested with the responsibility for setting qualifications, establishing certification conditions, employing and promoting personnel; e. g. Board of Control, city managers, licensure agencies, accrediting groups.
  - e - Active participation of advisory groups in further developing conditions which will insure the employment and continued growth and promotion of those educated through the programs offered.

## RECOMMENDATIONS FOR FIRE SCIENCE PROGRAM DEVELOPMENT AND IMPLEMENTATION

Recommended steps for the Fire Chief to follow in developing and implementing college level programs of higher education.

### A. Determine the Need.

Before approaching the local educational authorities it is recommended that a survey of the community be conducted to ascertain both immediate needs and long range projections. The scope of the survey should cover organizations within a realistic commuting distance to the educational institution, usually a maximum of thirty miles. In addition to surveying, fire departments contact industrial organizations, hospitals, governmental agencies, etc. In industry, the Industrial Relations Manager, or the Director of Personnel, would be in a position to provide such information.

### B. Instructional Personnel.

It is recommended that every effort be made to recruit instructors knowledgeable in the firematics and acceptable to the educational authorities. To qualify, the instructors should have a Bachelor's degree, preferably a Master's, in a related field. Industry is a prime source to provide these persons and is usually very willing to cooperate.

### C. Schedule Exploratory Meeting with College.

The rapport between town and gown has increased significantly in recent years as the community college endeavors "to meet the education needs of the community." Therefore, a completed survey, reinforced with reliable information related to educational needs, and manpower utilization, etc. will provide an excellent frame of reference and setting for your first meeting with the college representatives.

### D. Advisory Committee.

With the assistance of the educational representatives organize a Fire Science Advisory Committee. The Committee should be broad gauged and include representatives of the fire department, industry, education, interested community officials, etc. Limit the number to fifteen. The Advisory Committee can make a valuable contribution toward achieving the successful development and implementation of the program by: (1) creating interest in the project. (2) working closely with the college officials and faculty in developing the curriculum. (3) recommending the the type of program i. e. Associate Degree, (A.A.S.) or Certificate Program to be developed and implemented. (4) Evaluating the program at periodic intervals.

### E. Class Size.

The size of the class will be of prime importance to the college. It is recommended that if a degree program is to be implemented, the initial en-

rollment should be at least fifteen students. Also, it is very important for the community to provide similar enrollments in subsequent years. In the event your survey indicates that following the initial enrollment, additional enrollments of between 10-20 persons are not possible, it may not be economically advisable for the college to provide a degree program.

In this case, we recommend that you consider a certificate program, as this type of endeavor provides greater flexibility related to enrollments, educational qualifications of candidates, etc.

F. Time Factor.

Take your time! Develop the program with purpose. Design your program to meet your local needs. Think in terms of the future.

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STATE FIRE TRAINING SUPERVISORS

Alabama: W. L. Rickard  
Trade & Industrial Education  
Box 2847, University, Ala.

Idaho: Steve Taylor  
Fire Department, 520 Idaho St.  
Boise, Idaho

Arizona: Jake Siken  
State Training College  
Phoenix Fire Department  
10 North 3rd Ave.  
Phoenix 85003

Illinois: W. J. Eckert, Head  
Firemanship Training  
University of Illinois  
Champaign, Ill.

Arkansas: Whit Murphy  
State Education Building  
Little Rock, Arkansas 72201

Indiana: Harvey H. Hacker  
Educational Director, State  
Fire Marshal Dept.  
502 State Office Building  
Indianapolis, Indiana

California: Edward W. Bent  
State Department of Education  
721 Capitol Mall  
Sacramento, Cal. 95814

Iowa: Keith Royer, Fire Service Ext.  
Iowa State University  
Ames, Iowa

Colorado: Anthony A. Pisciotta  
State Board for Vocational Ed.  
32 State Services Building  
Denver, Colorado, 80203

Kansas: Edgar M. Munday, Asst. Chief  
Johnson Co. Fire Dist. No. 2  
Prairie Village, Kansas

Connecticut: Andrew J. Flanagan  
State Department of Education  
401 Flatbush Ave.  
Hartford, Conn.

Kentucky: J. L. Thompson, Chairman  
Kentucky Fire School Committee  
940 Starks Building  
Louisville, Kentucky 40202

Delaware: Leon F. Osinski  
Director of Vocational Educ.  
Wilmington Public Schools  
H. F. Brown Technical H. S.  
14th & Market Sts.  
Wilmington, Delaware, 19801

Louisiana: Julian A. Martin, Coordinator  
Louisiana State University  
Fireman's Program, General  
Extension Div.  
Baton Rouge, Louisiana

District of Columbia: Loyde N. Balcom  
Fire Training Division  
District Building  
14th & E Streets, N. W.  
Washington, D. C.

Maine: Donald Marchildon, Super.  
Fire Service Training  
Trade & Indust. Education  
Department of Education  
Augusta, Maine 04330

Florida: W. H. Barnett  
Florida State Fire College  
P. O. Box 785  
Ocala, Florida 32670

Maryland: Rexford Wilson, Director  
Fire Service Extension  
University of Maryland  
College Park, Maryland 20742

Georgia: Harold G. Thompson  
Georgia Fire Institute  
Industrial Education Dept.  
Georgia Institute of Technol.  
Atlanta, Georgia 30332

Massachusetts: William McConnell  
Senior Supervisor  
Department of Education  
200 Newbury St.  
Boston, Mass.

Michigan: Francais Hartman  
Civil Defense & Disaster  
Training Center  
University of Michigan  
North Campus  
Ann Arbor, Mich. 48103

Minnesota: E. L. Weber, Asst. Comm.  
Fire Marshal Division  
State Office Building  
St. Paul, Minnesota

Mississippi: J. W. Lewis  
Trade & Industrial Education  
Div. of Vocational Education  
Box 771  
Jackson 5, Miss.

Missouri: W. Bush Walden, Admin. Asst.  
Firemanship Training  
Fire Training Building  
1001 Ashland Gravel Road  
Columbia, Missouri

Montana: W. Lyle Roessler  
Trade & Industrial Education  
Vocational Educational Div.  
State Dept. of Public Instruc-  
tion  
State Capitol Building  
Helena, Montana 59601

Nebraska: William A. Berens, Chief  
Fire Engineering Training  
Instructor  
Box 206  
Gibben, Nebraska 68840

Nevada: H. B. Matherly  
Fire Service Instructor  
State of Nevada  
Capitol Building  
Carson City, Nevada

New Hampshire: Howard Swain, Director  
Trades and Industrial Annex  
State House  
Concord, N. H.

New Jersey: Robert L. Tarbox, Director  
Industrial & Fire Division  
New Jersey State Safety Council  
24 Branford Place  
Newark, N. J. 07102

New Mexico: Jack Boulton  
Assistant State Supervisor  
Trade & Indust. Education  
State Dept. of Education  
Santa Fe, New Mexico

New York: Anthony R. Granito, Super-  
visor of Fire Training  
Office of Local Government  
Division of Fire Safety  
155 Washington Avenue  
Albany 10, N. Y.

North Carolina: Chief Cosmos L. Cox,  
Director-Conductor  
North Carolina Fire College  
& Pump School  
Fire Dept. Headquarters  
Durham, North Carolina

North Dakota: G. H. Mowers, State Dir.  
Trade & Indust. Education  
State School of Science  
Box A  
Wahpeton, No. Dakota 58075

Ohio: Byrl R. Shoemaker, Director  
Vocational Education  
Dept. of Educ., Room 612  
State Office Building  
Columbus, Ohio 43215

Oklahoma: G. L. Sartain, Fire Pro-  
tection Dept.  
Oklahoma State University  
Stillwater, Oklahoma

Oregon: R. P. Moblen, Fireman  
Training Spec.  
305 Public Service Bldg.  
Salem, Oregon 97310

Pennsylvania: Clayton H. Canterbury, Supv.  
Fire Service Training  
Public Service Institute  
Penna. State Fire School  
Lewiston, Penna.

Rhode Island: Captain Michael Fox, State  
Supvr. Fireman Training  
East Providence, R. I.

So. Carolina: H. B. Wells, South Carolina State Firemen's Ass'n.  
Fire Training Service  
Route 1, Box 149  
Prosperity, So. Carolina  
29127

So. Dakota: Earl Hood, Director of Firemen's Training  
Spearfish, South Dakota

Tennessee: Homer S. Elkins, Director of State Fire Service School  
215 Chesnut Street  
Chattanooga, Tenn.

Texas: H. D. Smith, Director, Firemens Training School  
Texas A. & M. College  
College Station, Texas

Utah: Von H. Robertson  
State Supervisor of Training, Trade & Industrial Education  
Salt Lake City, Utah

Vermont: Walter B. Read, Coordinator,  
Vermont State Firefighters" Association  
Office of the Coordinator  
East Dorset, Vermont

Virginia: R. Lawrence Oliver  
State Dept. of Education  
P. O. Box 654  
Harrisonburg 22801

Washington: Lyle Goodrich, Supervisor  
Fire Training, State Board for Vocational Education  
Box 250, Olympia, Wash.

West Virginia: R. E. Hanna, Jr. Asst. Director, Fire Service Extension School  
West Virginia University  
Morgantown, W. Va. 26506

Wisconsin: William E. Clark, Supervisor, Fire Service Training  
State Board of Vocational and Adult Education  
Room 720, State Office Bldg.  
Madison, Wisconsin, 53702

Wyoming: Charles A. Kline, State Direct. Trade & Industrial and Technical Education, State Department of Education  
Vocational Division  
Capitol Building  
Cheyenne, Wyoming

## STATE FIRE MARSHALS

Alabama: J. B. Kitchens  
Department of Insurance  
400 State Administrative Bldg.  
Montgomery, Alabama 36104

Alaska: Robert Crouse, Dept. of Public  
Safety  
Box 2719  
Juneau, Alaska

Arizona: G. A. Bushnell  
Director of Insurance  
718 West Glenrosa  
Phoenix, Arizona

Arkansas: Capt. William C. Stuebing  
Arkansas State Police  
P. O. Box 1751  
Little Rock, Arkansas

California: Glenn B. Vance  
1025 P Street  
Sacramento 14, Calif.

Colorado: James A. Underwood  
Safety Inspection Div.  
Industrial Comm. of Colorado  
150 East 13th Avenue  
Denver, Colorado 80203

Connecticut: Major Carroll E. Shaw  
Deputy State Fire Marshal  
Dept. of State Police  
100 Washington Street  
Hartford, Conn.

Delaware: William R. Favinger  
P. O. Box 109  
Dover, Delaware

Dist. of Columbia: Hugh A. Groves  
Fire Prevention Division  
Room 223, District Building  
14th & E Sts. N. W.  
Washington, D. C.

Florida: Broward Williams  
State Capitol  
Tallahassee, Florida

Georgia: John R. Gore, Jr.  
State Capitol, Room 132  
Atlanta, Georgia

Hawaii: Sidney L. Hashimoto  
Dept. of Regulatory Agencies  
Honolulu, Hawaii

Illinois: William J. Cowley  
Div. of Fire Prevention  
613 Armory Building  
Springfield, Ill.

Indiana: Norman M. Fesler  
100 N. Senate Avenue  
502 State Office Building  
Indianapolis, Indiana

Iowa: Wilbur R. Johnson  
New State Office Building  
Des Moines, Iowa

Kansas: Fred R. Farr  
State Office Building  
Topeka, Kansas

Kentucky: Harold L. Foster  
Dept. of Public Safety  
New State Office Building  
Frankford, Kentucky

Louisiana: Milton Stirr  
106 State Office Building  
New Orleans, Louisiana

Maine: C. F. Rogan, Acting State  
Director for Fire Prevention  
State House  
Augusta, Maine

Maryland: James C. Robertson  
301 W. Preston St., Rm. 805  
Baltimore, Maryland

Massachusetts: Ralph L. Garrett  
Dept. of Public Safety  
1010 Commonwealth Avenue  
Boston, Mass.

STATE FIRE MARSHALS  
(Cont'd)

Michigan: Glenroy M. Walker, Chief  
Fire Marshal Division  
Michigan State Police  
714 So. Harrison  
East Lansing, Michigan, 48824

Minnesota: Cyrus E. Magnusson  
Insurance Division  
570 State Office Bldg.  
St. Paul, Minn.

Mississippi: Walter Dell Davis, Comm.  
Insurance Department  
Jackson, Miss.

Montana: William A. Penttila  
State Capitol Building  
Helena, Montana

Nebraska: Joseph F. Divis  
State Capitol  
Lincoln, Nebraska

Nevada: Richard H. Bart  
Carson City, Nevada 98701

New Hampshire: Aubrey G. Robinson  
Concord, New Hampshire

New Mexico: R. F. Apodaca  
P. O. Drawer 1269  
Santa Fe, New Mexico

New York: George H. Proper, Director  
Office of Local Government  
Division of Fire Safety  
155 Washington Avenue  
Albany, N. Y. 12210

North Carolina: N. E. Canady  
Insurance Department  
Box 351, Labor Building  
Raleigh, N. C.

North Dakota: Vance Arneson  
Deputy State Fire Marshal  
State Capitol  
Bismarck, North Dakota

Ohio: George Schlotterbeck  
21 West Broad Street  
Columbus, 15, Ohio

Oklahoma: Jack C. Sanders  
4040 North Lincoln  
Oklahoma City, Oklahoma

Oregon: C. Walter Stickney  
111 Labor & Industries Building  
Salem, Oregon

Pennsylvania: Captain J. E. Sacriste  
Pennsylvania State Police  
Room 613, South Office Building  
Harrisburg, Penn.

Rhode Island: walter E. Stone  
Rhode Island State Police  
P. O. Box 185  
North Scituate, Rhode Island

South Carolina: Charles W. Gambrell  
Federal Land Bank Building  
Columbia, South Carolina

South Dakota: J. P. Menning  
State Capitol  
Pierre, South Dakota

Tennessee: Floyd M. Murphy  
Dept. of Insurance and Banking  
State Office Building  
Nashville 3, Tennessee

Texas: J. N. Nutt  
State Board of Insurance  
1110 San Jacinto Street  
Austin 1, Texas

Utah: Robert A. Tanner  
117 State Capitol  
Salt Lake City, Utah

Vermont: Captain John L. Vergin  
Dept. of Public Safety  
Redstone Building  
Montpelier, Vermont

STATE FIRE MARSHALS  
(Cont'd)

Virginia: C. S. Mullen, Jr.  
P. O. Box 1157  
Richmond 9, Virginia

Washington: Lee I. Kueckelhan  
Department of Insurance  
Insurance Building  
Olympia, Washington

West Virginia: Lewis E. Myles  
Charleston, West Virginia

Wisconsin: Charles L. Manson  
711 West Wells Street  
Milwaukee 3, Wisconsin

Wyoming: Edwin P. Bradley  
State Labor Department  
301 Capitol Building  
Cheyenne, Wyoming