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Five-year Plan For Florida's Fire/rescue Training And Education System

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**Five-Year Plan
for
Florida's Fire/Rescue
Training and Education System**

**Final Report Submitted
to
Florida Department of Insurance and Treasurer**

**by
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December 15, 1995

**Institute for Simulation and Training & Department of Public Administration
University of Central Florida**

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Five-Year Plan for Florida's Fire/ Rescue Training and Education System

Summary

The mission of the Florida State Fire College (FSFC) needs to be redirected to match the changing mission of the fire service. The nature of the fire service has changed in the last twenty years from a priority of fire suppression and prevention, to a larger variety of tasks including providing emergency medical services, mitigating hazardous materials and supporting the emergency management needs of local communities. Leadership skills in this increasingly complex area have become critically needed.

This report describes a five year process, including funding requirements, to meet the needs described above. Major components include: (1) upgrading the mission and stature of the Florida State Fire College; (2) providing much needed upgrades in the physical facilities at the FSFC; (3) establishing a partnership between the State University System and the FSFC to offer a program of study, specifically designed for leaders in the fire/rescue and emergency services, leading to a bachelors degree; (4) involving Florida's Community Colleges through a network of sites covering the State for instructional delivery; and (5) better meeting the training needs of Florida's volunteer fire fighters.

Two alternatives are proposed: (1) a high budget program involving three universities (UCF, FSU, and UF), and (2) a low budget option involving only UCF working with the FSFC. Funding requirements for both options are shown in Table 1. Fees from the short courses and FTE from college courses are projected to provide this additional financial support.

Table 1 Low and High Budget (\$1000s) for FSFC Instruction and Facility Upgrade

	High Budget Option			Low Budget Option			Facility Upgrade
	FSFC	SUS	Total	FSFC	SUS	Total	
1996-1997	187.0	128.9	315.9	161.1	150.7	311.8	90.2
1997-1998	290.6	259.4	550.0	158.9	210.8	369.7	1,139.0
1998-1999	299.6	208.8	508.4	165.6	142.2	307.8	
1999-2000	309.2	149.7	458.9	172.4	98.1	270.5	
2001-2002	319.1	96.8	415.9	179.7	50.8	230.5	
Totals	1,405.5	843.6	2,249.1	837.7	652.6	1,490.3	1,229.2

Problems of FSFC and Suggested Solutions

The mission of the Florida State Fire College (FSFC) needs to be redirected. The current mission has not evolved to match the changing mission of the fire service. Several existing reasons justify this redirection:

Problem: Most of the services delivered focus on the traditional fire service functions of fire suppression and prevention. The nature of the fire service, in Florida as well as nationwide, has changes over the last 20-25 years. When the Florida minimum fire standards law (Florida Statute 633) went into effect on January 1, 1973, the highest priority of the Florida fire service was to suppress and prevent fires. Within the last five years, the second priority of Emergency Medical Services (EMS) had become a significant function of the local fire department. Pre-hospital care services have become a larger part of the fire service workload. As a direct result of current OSHA mandates, the third priority of mitigating hazardous materials has been added. The latest call for fire service response has been in the area of emergency and disaster management, as illustrated by its response to Hurricane Andrew and other subsequent natural disasters in the state. The most recent area of emphasis, managing response to emergencies and natural disasters, is not currently part of the FSFC's curriculum. Of these four priorities areas, we estimate that up to 80% of the Florida Fire Service resources are dedicated to the EMS function.

In responding to the OSHA mandates, the FSFC provides some training in the area of mitigating hazardous materials. More needs to be provided to meet the increased demand for these services in both private industry and government. The Fire College should actively pursue training and education in this area to provide a full service product that reflects the full spectrum of fire service needs. There is the danger that in the absence of FSFC adapting to this mission redirection, other providers will fill this need and cause FSFC to lose needed revenue.

Soution: A much greater emphasis needs to be placed on providing training to assist the Florida fire service in meeting the EMS, hazardous materials, and emergency management needs of local communities.

Problem: There are too many certified firefighters for the number of positions in the fire fighting community in the State of Florida.

Although no accurate count exists, there are approximately 12,500 paid positions and approximately 11,400 volunteers statewide. Fire College data estimates that presently there are over 33,000 certified fire fighters. In addition as indicated in Appendix B, in the last five years 780 students graduated from the 27 Florida Community Colleges with Associate of Science degrees in Fire Science.

These same Community Colleges also reported approximately 2880 students presently enrolled in their AS programs. Similar data reported for the last five year indicates that approximately 3480 students have graduated, with over 8500 additional students enrolled in course work.

Turnover among currently employed fire fighters is very low - probably less than 5% per year. The fire fighting profession has historically offered a career with a high level of security and excellent retirement benefits. After obtaining employment, very few certified fire fighters decide they have chosen an inappropriate career.

Solution: The FSFC needs to redirect its resources away from direct certification training to managing overseeing certification training throughout the state. As appropriately noted by Robert Carter, President of the Florida Professional Firefighters, the FSFC still needs to maintain some on site certification training to reflect customer needs.

Problem: There is a great statewide need for updated fire service education and training for mid and upper level management. The demand goes beyond those skills addressed in Fire Officer I course work. Currently, only one course in fire service management in the Fire Officer I program is geared toward management skills and it is aimed at the entry level officer. The remaining six courses emphasize a much more technical focus.

There are several pieces of information that support this analysis. As indicated by FSFC data, only 796 firefighters have Bachelors degrees in Public Administration or related fire service fields. Only some of these degrees are management related.

As mandated by State Statute supplemental pay is currently offered to 796 fire service management personnel with bachelors degrees and 2524 with Associate degrees.

Increasingly, the more recently hired firefighters have an Associates or Bachelors degree. In many fire departments, mid and upper level managers without degrees find themselves supervising personnel that are more educated. This scenario has presented more complex management challenges than have existed in the past. Also, labor management issues have become increasingly important as the number of unionized fire departments has grown.

Solution: To resolve these issues, mid and upper level managers need additional management training.

Problem: There is no upper level Bachelors course work at any State University System (SUS) that focuses on the specific complexities of managing a modern fire department.

Although the Fire Marshals Trust Fund recognizes the value of education by its supplemental support for those who complete a Bachelors of Public Administration, there are no courses that specifically focus on the needs of the fire service as it carries out its evolved mission in the areas of suppression, prevention, hazard mitigation, pre hospital care, and emergency and disaster management.

Executive officers (Chiefs, Assistant Chiefs, Emergency Managers) are forced to go out-of-state to obtain job-related BS/BA degrees (e.g., the University of Cincinnati) or settle for related course work such as in university departments of public administration. To compound this problem, out-of-state programs charge tuition several times more expensive than in-state programs which might be established.

Problem: Sufficient training is not provided for volunteer firefighters and emergency services personnel on a readily accessible basis.

Recent emergency events have proven the value of the volunteer fire fighter and emergency service personnel. There are still significant areas of Florida that are served almost exclusively by volunteer services and approximately 45% of Florida's fire fighters are volunteers. The present 40 hour course work, required for volunteer certification, falls short of providing these individuals with the skills and competencies required to maintain acceptable levels of team safety and performance.

Solution: The FSFC needs to include the needs of the volunteer when updating service delivery, expanding the content of course work to meet the new challenges of the redirected fire service mission. More education needs to be placed on alternative educational service delivery.

Problem: The certification exams administered by the FSFC may not appropriately assess the quality of the training and educational experience for those seeking certification.

Solution: The certification process needs to be reviewed and upgraded. The FSFC needs to provide a better oversight and follow up of course content offered by training centers where the pass rate is determined to be unacceptable. FSFC should also provide better direction to training centers that will better enable them to increase instructional quality.

Demand for Upper Level Management Course Work

The demand for upper level management courses will be sufficient to meet projections regarding course enrollment for several reasons:

1. There is a statewide pent-up demand for these courses, supported anecdotally by conversations with Community College personnel who offer the AS degrees, that exists because of the monetary incentive currently offered by the Fire Marshal Trust Fund. The over 3000 graduates that have been produced in the last five years is one pool of students that could enroll in these courses.
2. There are approximately 3000 currently employed mid and upper level fire service managers. Given the increasing complexity of management problems faced by this group, increased interest in these courses is highly probable.

3. There are another approximately 1500 lower level fire service managers who may wish to enroll in these courses in preparation for career advancement.
4. There is an increasing trend in the statewide fire service community to changed the minimum qualifications for promotion for mid and upper level management to include BA degrees in Public Administration or related Fire Service fields.
5. There is a present on going effort at the University of Central Florida to formulate an articulation agreement with Florida Community Colleges to assist current and future AS students to more easily complete a BA in Public Administration with as few credits as possible. Current discussions with Seminole Community College for example, project an AS to BA transition for the student in 123 hours plus satisfaction of the foreign language requirement.
6. Currently unemployed certified firefighters will enroll in these classes in hopes of improving their skills and making themselves more marketable.

Decline in FSFC's Training Productivity

Productivity of the Bureau of Fire Standards and Training and the FSFC has generally declined over the last five years (see Tables 1 and 2). The tables show the productivity of the Bureau Standards group and the training provided by the FSFC, for 1994-95 averages, are below the five year averages for both groups. This is a telling indication of the need to revitalize both activities.

Increase productivity as reflected in all aspects of this report including:

1. redefining the mission of the FSFC
2. providing resources for the FSFC to carry cut an expanded mission
3. establishing the FSFC as the acknowledged leader in the State for fire/rescue and emergency management education and training
4. building a network, which is basically already partially in place, for State-wide delivery of education and training
5. building a partnership with the State University System for State-wide access of fire and emergency service personnel to bachelors and masters education programs
6. upgrading the training of volunteer fire fighters State-wide, and
7. upgrading the professionalism of Florida's fire/rescue and emergency management services.

Tables 2 and 3 provide an overview of the general trend in productivity of the FSFC over the past five years.

Year	Firefighter	Volunteer	Inspector	Instructor	Renewals & Other	Total
1990-91	2359	1373	358	218	2014	6322
1991-92	2281	1577	441	126	1886	6311
1992-93	1591	1679	325	242	2106	5943
1993-94	1807	1534	313	296	1978	5928
1994-95	1352	1109	268	207	1983	4919
Total	9390	7272	1705	1089	9967	29423
5 Yr Avg	1878	1454.4	341	217.8	1993.4	5884.6

*Note: Arson Investigator and Fire Officer I are non-statutory certificates, included in Other

Year	Classes	Headcount	%	Contact Hrs	%
1990-91	188	5380	--	201,024	--
1991-92	200	5340	-1%	203,144	+1%
1992-93	161	5689	+7%	216,824	+7%
1993-94	189	5226	-8%	200,296	-8%
1994-95	2044	4718	-10%	172,540	-14%
Total	942	26353	--	993,828	--
5 Yr Avg	188.4	5270.6	--	198,765.6	--

* Note: Class offerings in Minimum Standards and class size were capped as of 1993-94. Seminars (Great Florida Fire School, Terrorism, FACAP, Flammable Liquid, and Hazardous Materials) not included.

Strategies, Goals, and Solutions for FSFC

The plan we propose addresses problems and strategic goals as articulated in a comprehensive study conducted by the FSFC, and published in *2020 Foresight: Forecast for Change*. Approximately 60 leaders, of essentially every important faction of the Florida fire service community, conducted a workshop in February 1994 sponsored by the FSFC, which resulted in this comprehensive and insightful report.

The proposed five-year plan lays out a strategy for reorganizing the activities of the FSFC, including leadership of the major components of fire service and emergency management training (see Table 4 and 5).

The training system for fire/rescue and emergency management needs strong management by the FSFC to increase the value to customers and utilize resources already in place and not currently being used to the best advantage. Over a limited period of time, a relatively small investment in the FSTC (compared to the total assets in the State for fire/rescue and emergency management training) can greatly improve education, training and the professional status of Florida's fire and emergency services.

Many of the important points of this study are taken directly from goals and solutions in the study *2020 Foresight: Forecast for Change*. (1994). Problems identified in this study include concerns of the various individuals interviewed, who represent a cross-section of leaders in Florida fire/rescue and emergency management agencies. Problems exist in four major areas of the current fire/rescue training and education system in the State of Florida; Instructional Delivery, Physical Plant Condition, Resource Funding, Role of Administration.

Instructional Delivery

Problem - Resources are currently insufficient for the FSFC to deliver instruction state-wide. Efforts to deliver off-site courses by FSFC faculty are not as effective as they might be. Problem areas include insufficient faculty for field training, insufficient travel budget, and insufficient curriculum materials and instructional delivery (such as distance education).

Solution: Change the system to one of regional delivery to increase the quality of courses. In addition, the train-the-trainer concept should be utilized where practical.

Expansion of off-site course delivery can be improved by:

- transferring FSFC instructors staff from campus training to field training,
- developing curriculum materials appropriate for off-site delivery,
- putting in place a network of off-site delivery sites which we propose be located on Community College campuses, and
- Utilize satellite, video production, computers, fax machines, and distributive education networks to modernize the delivery of training.

Physical Plant Condition

Problem - The FSFC facility in Ocala is badly in need of improvement in several areas:

- a. A housing facility with a barracks atmosphere, not appropriate for high level fire/rescue and emergency management personnel who would come for resident management courses (see Appendix E for dormitory upgrade needs and recommendations).
- b. A library, which is inadequate to store current materials (high humidity has already caused considerable damage to stored books and the facility is not large enough for current use, not to mention a significant increase in use of the library recommended in this report.
- c. Inadequate office space for staff and faculty.
- d. Lack of a computer-based classroom for training, which is needed to develop and deliver computer-based instruction and distance education recommended in this study.

Funding Sources

Problem: Current funding is insufficient to support needed improvements for FSFC.

Solution: Identify, develop, and operationalize alternate forms of funding to improve facilities. This should be any mechanism including FTE's, grants, taxes, fees, and foundation support where possible.

Role of Administration

Problem - Need for a new mission statement.

Solution: Change the mission statement to more accurately reflect changes to the system, such as:

633.44 Purpose of the Florida Institute of Fire and Emergency Services:

- Provide emergency service personnel with quality education and training.
- Develop innovative concepts for the emergency service community.
- Establish and maintain standards of excellence through the certification process.

Problem - Lack of a good business plan

Solution: Develop and communicate a business plan to meet the expanding needs of the emergency response community.

Problem - The name of the college needs to be changed to more accurately reflect its mission.

Solution: Change the name to a more accurate title such as, "The Florida Institute of Fire and Emergency Services".

Proposed Five-Year Budget Plan

The proposed five year plan lays out a process, including funding requirements, for establishing a partnership between the State University System and the Florida State Fire College. The goal of this partnership is to enhance education and training for fire/rescue services and emergency management in Florida:

1. to strengthen the leadership role of the FSFC in Florida,
2. to provide opportunities state-wide for mid-and high-level personnel to obtain bachelors and masters degrees designed to enhance their professionalism,
3. to strengthen the working relationship with the National Fire Academy FEMA, and

4. to establish a State-wide network (both distance education and field instruction) for specialized high level in-service courses, meeting the needs of industry as well as fire/rescue and emergency management organizations , and
5. to broaden the training mission of the FSFC.

An outline of the proposed high budget program is provided in Table 4 and the low budget program outline in Table 5.

Two alternatives are shown:

1. The high budget program which has programs at the University of Central Florida (UCF), the University of Florida (UF), and Florida State University (FSU)
2. The lower budget program which only includes UCF

Table 4 Yearly Events of High Budget Program

Year	\$1000's	FSFC	SUS
1. 1996-97	315.9 (training) 90.2 (facility)	Two Senior Instructors added (12/96) Training and Research Manager and positioned upgrade (7/96) Distance Education initiated (8/96) 5 PC's set up as instructional lab (9/96) (short courses net \$5,000 returned to program)	Senior Professor starts at UCF (8/96) (100% supported) Adjuncts start at UCF (1/97) Distance Education initiated (8/96) First two satellite programs initiated at selected Community Colleges (1/97) Chair of Public Administration Department at UCF spends 10% time coordinating program
2. 1997-98	550.0 (training) 1,139.0 (facility)	Two additional Senior Instructors added (7/97) Distance Education underway (short courses net \$25,000 returned to program)	Senior Professor at UCF (80% supported) Senior Professor starts at UF (100% supported) Senior Professor starts at FSU (100% supported) 4 Additional satellite programs initiated at Community Colleges Distance Education underway
3. 1998-99	508.4 (training)	 (short courses net \$40,000 returned to program)	Senior Professor at UCF (60% supported) Senior Professor starts at UF (80% supported) Senior Professor starts at FSU (80% supported)
4. 1999-00	458.9 Training	 (short courses net \$75,000 returned to program)	Senior Professor at UCF (40% supported) Senior Professor starts at UF (60% supported) Senior Professor starts at FSU (60% supported)
5. 2000-01	415.9 (training)	 (short courses net \$100,000 returned to program)	Senior Professor at UCF (20% supported) Senior Professor starts at UF (40% supported) Senior Professor starts at FSU (40% supported)

Table 5 Yearly Events of Low Budget Program

Year	\$1000's	FSFC	SUS
1. 1996-97	311.8 (training) 1,139.0 (facility)	Two Senior Instructors added (12/96) Training and Research Manager and positioned upgrade (7/96) Distance Education initiated (8/96) 3 PC's set up as instructional lab (9/96) (short courses net \$10,000 returned to program)	Senior Professor starts at UCF (8/96) (100% supported) Adjuncts start at UCF (1/97) Distance Education initiated (8/96) First two satellite programs initiated at selected Community Colleges (1/97) Chair of Public Administration Department at UCF spends 10% time coordinating program
2. 1997-98	307.8 (training)	Two additional Senior Instructors added, on UCF payroll (7/97) Distance Education underway (short courses net \$40,000 returned to program)	Senior Instructors co-located at FSFC (100% supported) Assistant Professor added at UCF (100% supported) Senior Professor at UCF (75% supported) 4 Additional satellite programs initiated at Community Colleges Distance Education underway
3. 1998-99	270.5 (training)	 (short courses net \$75,000 returned to program)	Senior Instructors co-located at FSFC (75% supported) Assistant Professor added at UCF (75% supported) Senior Professor at UCF (50% supported)
4. 1999-00	230.5 (training)	 (short courses net \$100,000 returned to program)	Senior Instructors co-located at FSFC (50% supported) Assistant Professor added at UCF (50% supported) Senior Professor at UCF (25% supported)
5. 2000-01	182.2	 (short courses net \$150,000 returned to program)	Senior Instructors co-located at FSFC (25% supported) Assistant Professor added at UCF (25% supported) Senior Professor at UCF (self supporting)

Budget Highlights

Budgets for high and low options are attached as Appendix A. Major budget items as well as differences between the high and low options are explained below. Major events shown for each year are depicted in Table 4 (high option) and Table 5 (low option).

FSFC

Professional Education: The major budget item for the FSFC is for four Instructor/Professors to teach upper division university courses. A new position classification will need to be created at pay grade 26 (\$36,000 per year starting in 1996). Those filling the position will have a masters degree to qualify for appointments (non-tenure earning) at one or more of the three universities participating in the program. In addition, they will all have significant experience in fire/rescue and/or emergency management organizations in higher level positions and have demonstrated teaching skills at the college level. The salary, which is equivalent to \$28,800 for the academic year, is at the low end of the pay scale for Assistant Professors at the State's senior universities, but is also higher than current FSFC instructors. In addition, selected instructors will be expected to teach in-service training courses and may be asked to participate in the establishment and operation of distance education activities. It is anticipated that distance education will be a component of some of the courses.

Curriculum Development and R&D: Two positions for this branch are to be transferred from existing FSFC positions: one FSFC instructor from the Campus Training Branch and the Curriculum Specialist. The Training and Research Manager will be upgraded to pay grade 26. In addition, new funding for \$20,000 is allocated as seed money for the distance Education Network, which will consist of a combination of teletraining and on-site courses. (An additional \$20,000 is allocated to UCF for the same purpose and the FSFC and UCF will collaborate in the effort). This group will develop curriculum materials for new courses, sell curriculum materials, and upgrade the instructional capability on-site by setting up labs. UCF will provide considerable assistance for this process during 1996 and will provide guidance and special technical support from then on. The goal will be to involve current instructors in distance education and related activities. Current instructors will also be encouraged to pursue higher education in job related areas, within current policy.

For both low and high budget options, the cost to upgrade the library facility will be \$70,200 during the first year and \$20,000 for consulting services to provide detailed plans for the upgrade to the dormitory and dining facility. The east wing of the current barracks will be converted into approximately 20 motel type rooms and the dining area expanded to accommodate 150 people. The second year construction cost are \$1,139,000.

Universities

Academic Teaching and Coordination: The major budget items for the Universities (high option) is for a senior level professor at UCF, UF and FSU. The UCF Professor will be employed from the beginning of the program (at the start of the 1996-97 academic year). He/she will have the responsibility, in addition to teaching, to help establish course curricula, and initiate working relationships. Ten percent of the time is allocated for the Department Chair at each of the three Universities for the first year of their programs to coordinate among the many parties involved in the overall program (FSFC, SUS, other universities, intra-university, State Fire Marshall's Office, Community Colleges, etc.) This coordination will involve establishing articulation agreements with the FSFC and participating Community Colleges and securing approval for new courses within the university. For the high option, the Professors at UF and FSU will start at the beginning of the 1997-98 academic year.

For the low option, a senior professor and a junior professor start during the 1996-97 academic years at UCF, would be the only senior university in the program.

The Low and High Budget structure for instruction and facility upgrade is shown in Table 8 and a detailed budget shown in Appendix A.

Table 8 Low and High Budget (\$1000s) for FSFC Instruction and Facility Upgrade

	High Instruction			Low Instruction			Facility Upgrade
	FSFC	SUS	Total	FSFC	SUS	Total	
1996-1997	187.0	128.9	315.9	161.1	150.7	311.8	90.2
1997-1998	290.6	259.4	550.0	158.9	210.8	369.7	1,139.0
1998-1999	299.6	208.8	508.4	165.6	142.2	307.8	
1999-2000	309.2	149.7	458.9	172.4	98.1	270.5	
2001-2002	319.1	96.8	415.9	179.7	50.8	230.5	
Totals	1,405.5	843.6	2,249.1	837.7	652.6	1,490.3	1,229.2

High Budget Instruction: The high budget provides a net gain of four positions (Instructor/Professors) at the FSFC all at high level (pay grade 26). In addition, one position is upgraded to pay grade 26 (Training and Research Manager). Three universities (UCF, UF and FSU) gain Senior Professors. Support for the professors drops in 20% increments for each year.

Low Budget Instruction: The low budget results in no change in the number of personnel at the FSFC. Four FSFC positions are converted to four higher level positions, all at pay grade 26 and one pay grade 21 position. The University of Central Florida will be the only university involved in this program. The staff includes one Senior Professor, one Junior Professor, and two Senior Instructors which are co-located at the FSFC.

The same number of university courses are taught for the high and low budget options. However for the low budget option, there are two fewer FSFC Instructors for teaching campus and field courses (see Table 9 for a summary of courses taught). Also, the benefits of truly State-wide involvement by the SUS is diminished by having only one university participate instead of three. Having only one university involved does, however, alleviate some administrative issues (e.g., transfer of course credits among universities, less overhead for running one academic program instead of three).

Two-Year Program Evaluation

Universities will need to evaluate their programs after two years to verify that sufficient students are enrolled to make the programs self supporting. If enrollments are lower than we now project, program modifications will have to be made to maintain fiscal integrity. In the worst case, which we certainly do not anticipate, the continued existence of the program would be reevaluated.

Need for State-wide Education and Training Approach

Even though UCF would like to play a key role within the State University System for upper level courses in fire/rescue and emergency management, we recognize the need for a coordinated state-wide program. Accordingly, we have sought out other interested Florida public universities, particularly the University of Florida, as well as all community colleges with Fire Science programs. Locations of suggested university education and training sites as well as satellite sites are shown in Figure 1. The number of actual training sites will be fewer than shown and will be determined on a need basis.

A detailed course description of all proposed certificate and degree courses can be found in Appendix C.

Need for State Wide Education and Training Approach

Even though UCF would like to play a key role within the State University System for upper level courses in fire/rescue and emergency management, we recognize the need for a coordinated state-wide program. We have sought out other interested Florida public universities, particularly the University of Florida, as well as all Community Colleges with Fire Science programs. Locations of suggested university education and training sites as well as satellite sites are shown in Figure 1. The number of sites will be fewer and determined at a later date.

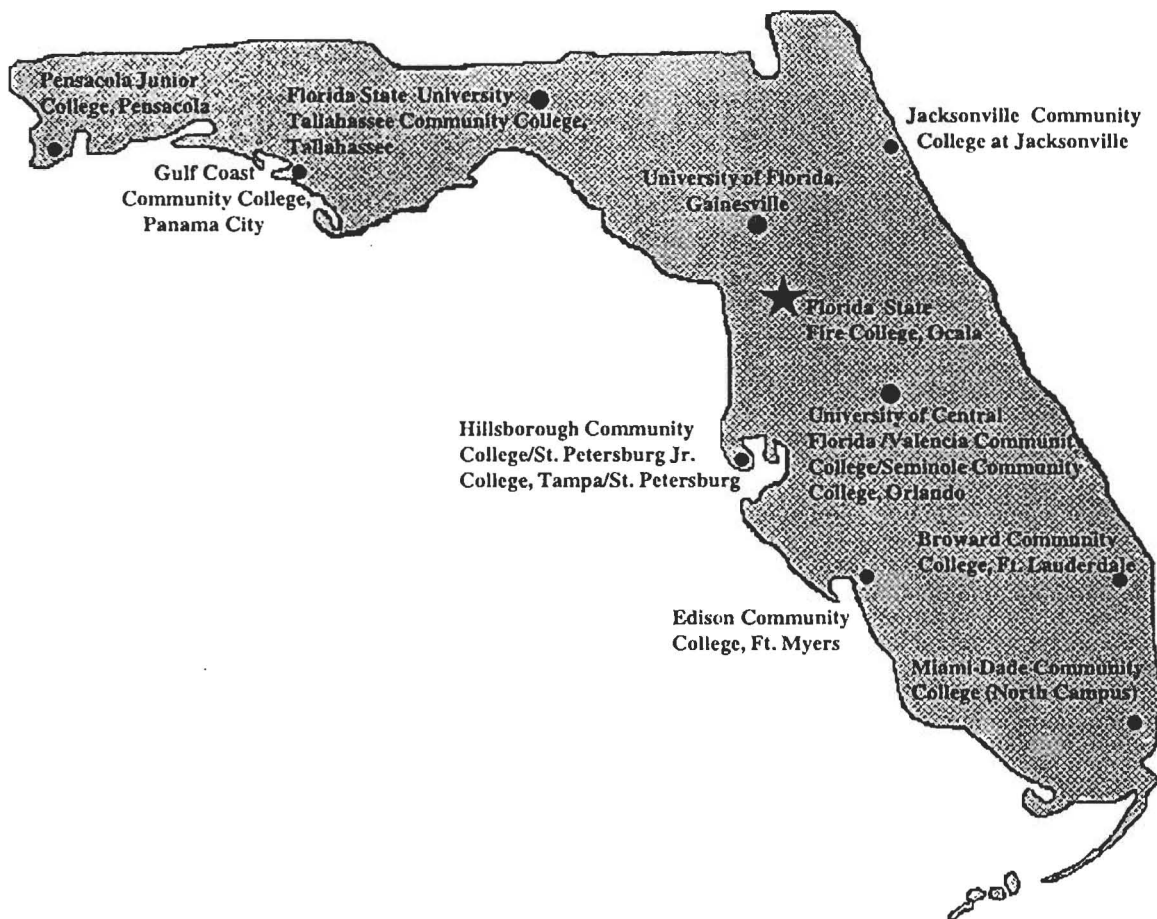


Figure 1 Network of Suggested Fire Science/Emergency Management Education Sites
(Final selection will include fewer sites)

The fire-rescue training system should be thought of as a progression of training as shown in Table 9.

Table 9 Fire Fighter Training Progression				
	State Certificate	Degree Programs		
Training Provider	Vo Tech Fire Departments FL Fire College	Community Colleges AA/AS	Universities BA/BS	Universities MPA
Training Audience	Entry Level	Entry Level Company Level	Battalion Officer Asst. Chief	Chief Officers
	Specialists (Technical)	Specialists (Technical)	Specialists (Management)	

The proposed locations, training sites, and number of students served are shown in Table 10.

Table 10 Fire/EMS Students Served and Courses Taught in University							
Sites	Years	Taught By				Total	
		UCF	FSU	UF	FSFC	Courses	Students
4	1996-1997	4			10	14	280
7	1997-1998	6	4	4	24	38	760
8	1998-1999	6	6	6	24	40	800
10	1999-2000	6	6	6	24	40	800
10	2000-2001	6	6	6	24	40	800

* Each course provides 3 credit hours and serves 20 students.

Overall, we found the fire science programs in the State's Community Colleges and at regional training systems working well. A high-profile involvement of the State University System and increased coordination among all parties of the Fire Training System (as shown in the degree programs, Table 11 and certificate programs, Table 12) will enhance the leadership role of the FSFC.

University Courses Suggested

We have drawn up a preliminary list of upper-level university courses as shown in Table 11. Courses are appropriate for a program of study in either Fire/Rescue Administration or Emergency Management (or a combination of both). Many of these courses are based on the Open Learning Program established by the National Fire Academy but a number of courses have been added. The final selection of courses is contingent on University approval and coordination with the FSFC.

Title	Location	Credit
Fire/Rescue and Emergency Management Operations	FSFC	3
Organizational Theory in Practice for Emergency Services	FSFC and Universities	3
Analytic Approaches to Public Emergencies	FSFC and Universities	3
Personnel Management for Emergency Services	FSFC and Universities	3
Principles of Occupational and Environmental Safety	FSFC and Universities	3
Political and Legal Foundations of Fire Protection and Emergency Management	Universities	3
Managerial Issues in Hazardous Materials	FSFC	3
Human Behavior in Public Emergencies	Universities	3
Applications of Fire/Rescue and Emergency Management Research	Universities	3
Executive Leadership in the Fire Service	FSFC	3
Disaster and Fire Defense Planning	FSFC	3
Management of Emergency Medical Services	FSFC and Universities	3
Strategic Analysis of Community Risk Reduction	FSFC and Universities	3
Code Management: A systems Approach	FSFC	3
Analytical Approaches to Public Fire Protection	FSFC and Universities	3
Management of Fire Prevention Programs	FSFC and Universities	3
Introduction to Emergency Management	FSFC and Universities	3
Community Response to Public Emergencies	FSFC and Universities	3
Practicum: Emergency Management Exercise	FSFC and Universities	3

Table 12 Fire Science/Emergency Management Certification Courses in Florida

Title	Location	Credit
Confined Space Awareness	FSFC and Universities	Certification
Confined Space Awareness and Entry	FSFC	Certification
Confined Space Entry and Rescue	FSFC	Certification
Industrial Hazardous Materials/Confined Space Refresher Programs	FSFC	Certification
Competent Person Training for Trench Construction	FSFC and Universities	Certification
OSHA Overview for Construction	FSFC and Universities	Certification
Hazardous Materials Site Worker	FSFC	Certification
Hazardous Materials Site Worker Supervisor	FSFC	Certification
Bloodborne and Airborne Pathogens Management Workshop	FSFC and Universities	Certification
Industrial Medical First Responder	FSFC	Certification
Fall Protection	FSFC	Certification
Industrial Hazardous - Materials Awareness	FSFC and Universities	Certification
Industrial Hazardous Materials -First Responder Operations	FSFC	Certification
Managers' and Supervisors' Overview of OSHA Regulations	FSFC and Universities	Certification
Lock/Tagout Program Management	FSFC and Universities	Certification
Emergency Action Plans and Evacuation Seminar	FSFC and Universities	Certification
Overview of Process Safety Management	FSFC and Universities	Certification
Safety and OSHA Compliance Self-Inspection	FSFC and Universities	Certification
Implementing a Hazardous Materials RIGHT-TO-KNOW Program	FSFC and Universities	Certification
Emergency Response Team Leader Seminar	FSFC	Certification
Industrial Respiratory Protection Workshop	FSFC	Certification
Industrial Hazardous Materials - Technician Certification	FSFC	Certification
Packaging and Shipping Hazardous Materials Workshop	FSFC and Universities	Certification
Introduction to Industrial Fire Suppression	FSFC	Certification

Within four years, the program should be graduating upwards of 100 fire/rescue and emergency management professionals per year (see Table 13), which will have a profound effect in upgrading the professional stature of the fire/rescue service in Florida. These professionals will also be in a better position to compete for budgets and to improve their departments.

Table 13 Program Output (by year) for High and Low Budget Options

Year	High Budget Option				Low Budget Option			
	Courses	Students	Sites	Grads	Courses	Students	Sites	Grads
1	12	150	4	-	12	150	4	-
2	30	350	7-8	-	24	300	6	-
3	36	400	8	50	28	400	7	50
4	36	450	8	75	30	450	7	75
5	36	500	8	100	30	500	7	100

Outside Funding

State funds will be augmented by two sources:

1. Income from courses taught (FTE for credit courses and fees for non-credit courses)
2. Grants and contracts

A list of non-credit courses is shown in Table 12. The projected budget shows a return to the program of \$100,000 from in-service classes by the fifth year for the high option vs. \$150,000 for the low option. These are almost certainly conservative figures if the Maryland Fire and Rescue Institute (which we visited) is used as a model. Their \$3.9 million annual budget from the State of Maryland is augmented by over \$1 million in fees generated from training courses and curriculum sales.

All senior personnel in both the universities and at the FSFC will participate as needed in activities to augment income to the FSFC, and as their time permits, in preparing grant and contract proposals and in related marketing activities. Key players in this process include the FSFC Director, Training and Research Manager and Professors at the universities. Funds received from external sources will allow augmentation of budgets for OPS personnel, equipment, and travel.

New Paths to Higher Education

As fire fighters aspire to higher positions and seek promotions, the need for education becomes increasingly important. An associate degree is required for many positions such as Fire Chief and is recommended for all. It is not uncommon to find volunteer fire departments commanded by chief officers with academic credentials, although not necessarily a fire service discipline. For intermediate to large cities, a bachelor's degree often is required, and always recommended. This is being stressed more often in Florida, particularly in South Florida and the Tampa-St. Petersburg areas. For departments in very large cities, a master's degree is recommended and soon may be required, at least in some parts of the nation. If our proposed opportunities are made available in Florida, the more progressive fire departments will begin to encourage this level of education for their Fire Chiefs. The current career progression in Florida is shown in Figure 2.

Because fire personnel generally tend to have irregular work schedules, it is difficult for them to attend traditional college courses which meet at the same place and time each week. This does not, however, preclude attendance at conventional courses. Many options make conventional classroom instruction quite possible for career fire officers. Consider these examples:

- Many instructors have a flexible attendance policy and will allow fire fighters to substitute home assignments for every third class .
- Fire chiefs often permit, and should encourage, fire fighters to trade small blocks of time with one another to facilitate their attendance at conventional college courses.
- Many colleges and universities have innovative scheduling, such as successive weekend classes. For this program to be successful, we will have to adopt strategies like these.

Florida Fire Service and Emergency Management Training System

The current career progression of Florida Fire Service and Emergency Management System personnel is shown in Figure 2.

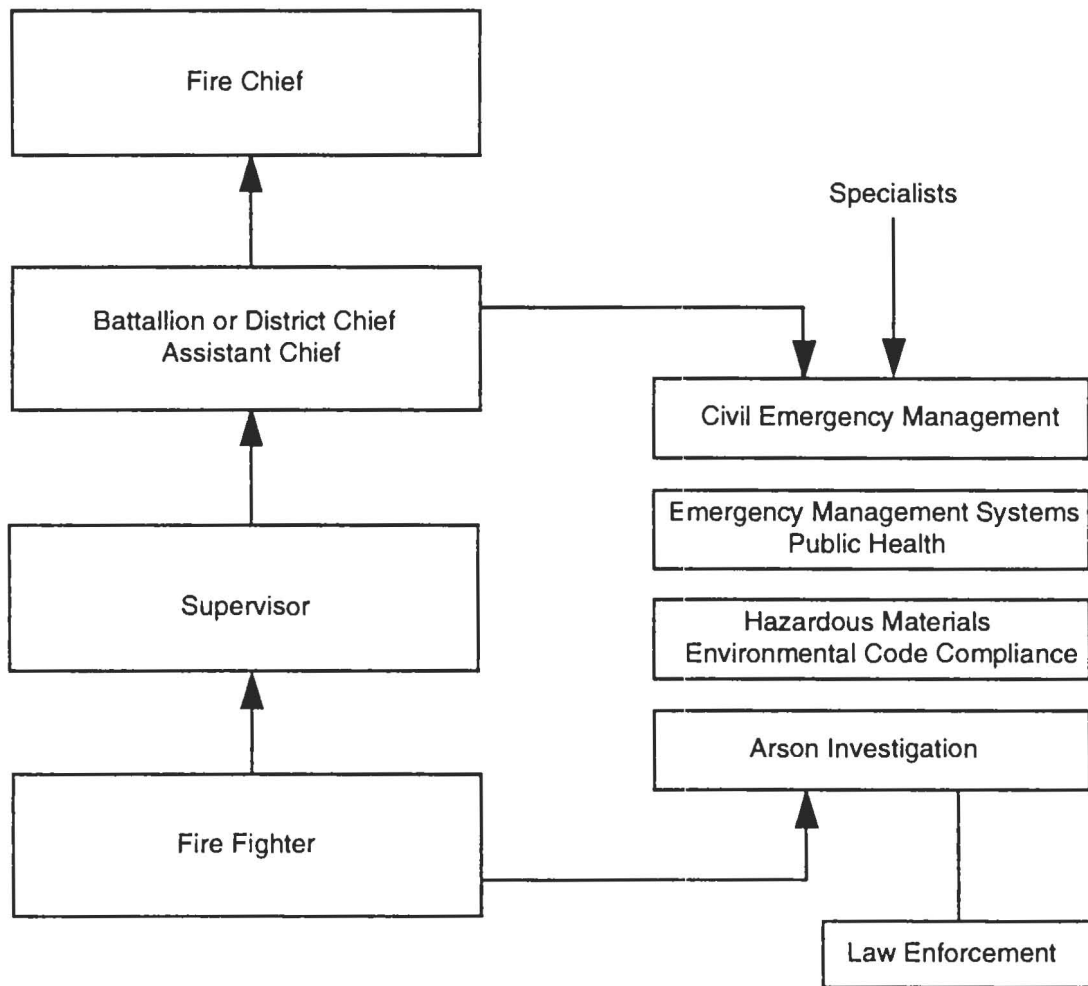


Figure 2 Fire Service Career Progression

The proposed organization of Florida's Fire Service/Emergency Management Systems training personnel. The two dotted line boxes for Senior Instructor/Professor represent the two positions proposed for UCF salary.

Faculty and Staff

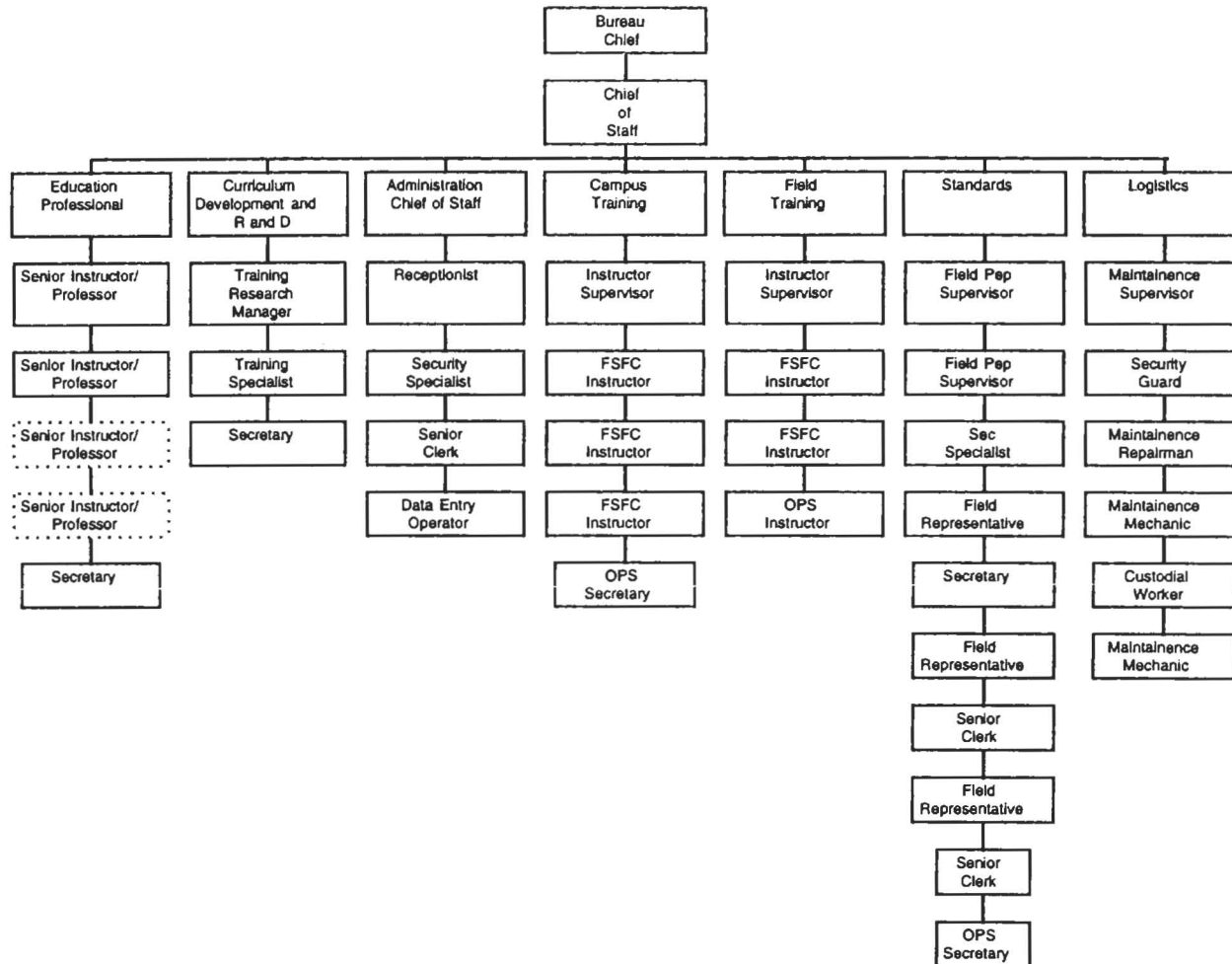


Figure 3 Low Budget Organizational Chart for Proposed Florida Fire Service/Emergency Management Training System

Appendix A Budget

INSTITUTE FOR SIMULATION AND TRAINING

FLORIDA FIRE TRAINING
"HIGH OPTION"

YEAR 1

DIRECT COSTS

LABOR (Rates include Fringe Benfits)	RATES	HOURS	COST	
<u>FSFC</u>				
Sr. Instructor (2)	\$23.61	4160.00	\$98,217.60	
Training R&D Manager	\$23.61	2080.00	\$49,108.80	
Training Specialist	\$15.95	2080.00	\$33,176.00	
Secretary (2)	\$9.71	4160.00	\$40,393.60	\$220,896.00
			:	
2 FSFC staff positions shifted				(\$66,000.00)
				\$154,896.00
<u>UCF</u>				
Professor	\$52.82	1500.00	\$79,230.00	
Chair, Dept. P.A.	\$45.14	208.00	\$9,389.12	
Adjunct Instructor	\$20.49	250.00	\$5,122.50	
Distance Ed. Specialist	\$41.57	245.00	\$10,184.65	\$103,926.27
			:	
Distance Ed Link - OPS Contract				\$10,000.00
			:	\$113,926.27
TOTAL LABOR				\$268,822.27
OTHER DIRECT COSTS				
<u>FSFC</u>				
EQUIPMENT			\$15,000.00	
TRAVEL (See Detail)			\$13,566.40	
MISC. MATERIALS & SUPPLIES			\$3,500.00	
			:	\$32,066.40
<u>UCF</u>				
TRAVEL (See Detail)			\$3,971.60	
MISC. MATERIALS & SUPPLIES			\$1,000.00	
DISTANCE ED LINK - EQUIPMENT			\$10,000.00	
			:	\$14,971.60
TOTAL OTHER DIRECT COSTS				\$47,038.00
TOTAL DIRECT COSTS				<u>\$315,860.27</u>

NOTE : \$5000 in Revenue from CEU Courses, etc. to supplement program

INSTITUTE FOR SIMULATION AND TRAINING

FLORIDA FIRE TRAINING
"HIGH OPTION"

YEAR 2

DIRECT COSTS

LABOR (See Detail)	RATES	HOURS	COST	
<u>FSFC</u>				
Sr. Instructor (4)	\$24.44	8320.00	\$203,340.80	
Director	\$24.44	2080.00	\$50,835.20	
Training Specialist (2)	\$16.51	2080.00	\$34,340.80	
Secretary (2)	\$10.06	4160.00	<u>\$41,849.60</u>	\$330,366.40
2 FSFC staff positions shifted				<u>(\$68,310.00)</u> \$262,056.40
<u>UCF</u>				
Professor	\$54.67	1200.00	\$65,604.00	
Adjunct Instructor	\$21.21	200.00	<u>\$4,242.00</u>	\$69,846.00
<u>UF</u>				
Professor	\$54.67	1500.00	\$82,005.00	
Adjunct Instructor	\$21.21	250.00	<u>\$5,302.50</u>	\$87,307.50
<u>FSU</u>				
Professor	\$54.67	1500.00	\$82,005.00	
Adjunct Instructor	\$21.21	250.00	<u>\$5,302.50</u>	<u>\$87,307.50</u>
TOTAL LABOR				\$506,517.40
OTHER DIRECT COSTS				
<u>FSFC</u>				
TRAVEL (See Detail)			\$23,554.20	
MISC. MATERIALS & SUPPLIES			<u>\$5,000.00</u>	\$28,554.20
<u>UCF</u>				
TRAVEL (See Detail)			\$3,971.60	
MISC. MATERIALS & SUPPLIES			<u>\$1,000.00</u>	\$4,971.60
<u>UF</u>				
TRAVEL (See Detail)			\$3,971.60	
MISC. MATERIALS & SUPPLIES			<u>\$1,000.00</u>	\$4,971.60
<u>FSU</u>				
TRAVEL (See Detail)			\$3,971.60	
MISC. MATERIALS & SUPPLIES			<u>\$1,000.00</u>	\$4,971.60
TOTAL OTHER DIRECT COSTS				<u>\$43,469.00</u>
TOTAL DIRECT COSTS				<u>\$549,986.40</u>

NOTE : \$25,000 in Revenue from CEU Courses, etc. to supplement program

INSTITUTE FOR SIMULATION AND TRAINING

**FLORIDA FIRE TRAINING
"HIGH OPTION"**

YEAR 2

DIRECT COSTS

LABOR (See Detail)	RATES	HOURS	COST	
<u>FSFC</u>				
Sr. Instructor (4)	\$24.44	8320.00	\$203,340.80	
Director	\$24.44	2080.00	\$50,835.20	
Training Specialist (2)	\$16.51	2080.00	\$34,340.80	
Secretary (2)	\$10.06	4160.00	\$41,849.60	\$330,366.40
2 FSFC staff positions shifted				(<u>\$68,310.00</u>) \$262,056.40
<u>UCF</u>				
Professor	\$54.67	1200.00	\$65,604.00	
Adjunct Instructor	\$21.21	200.00	\$4,242.00	\$69,846.00
<u>UF</u>				
Professor	\$54.67	1500.00	\$82,005.00	
Adjunct Instructor	\$21.21	250.00	\$5,302.50	\$87,307.50
<u>FSU</u>				
Professor	\$54.67	1500.00	\$82,005.00	
Adjunct Instructor	\$21.21	250.00	\$5,302.50	<u>\$87,307.50</u>
TOTAL LABOR				\$506,517.40
OTHER DIRECT COSTS				
<u>FSFC</u>				
TRAVEL (See Detail)			\$23,554.20	
MISC. MATERIALS & SUPPLIES			<u>\$5,000.00</u>	\$28,554.20
<u>UCF</u>				
TRAVEL (See Detail)			\$3,971.60	
MISC. MATERIALS & SUPPLIES			<u>\$1,000.00</u>	\$4,971.60
<u>UF</u>				
TRAVEL (See Detail)			\$3,971.60	
MISC. MATERIALS & SUPPLIES			<u>\$1,000.00</u>	\$4,971.60
<u>FSU</u>				
TRAVEL (See Detail)			\$3,971.60	
MISC. MATERIALS & SUPPLIES			<u>\$1,000.00</u>	\$4,971.60
TOTAL OTHER DIRECT COSTS				<u>\$43,469.00</u>
TOTAL DIRECT COSTS				<u>\$549,986.40</u>

NOTE : \$25,000 in Revenue from CEU Courses, etc. to supplement program

INSTITUTE FOR SIMULATION AND TRAINING

**FLORIDA FIRE TRAINING
"HIGH OPTION"**

YEAR 2

DIRECT COSTS

LABOR (See Detail)	RATES	HOURS	COST		
<u>FSFC</u>					
Sr. Instructor (4)	\$24.44	8320.00	\$203,340.80		
Director	\$24.44	2080.00	\$50,835.20		
Training Specialist (2)	\$16.51	2080.00	\$34,340.80		
Secretary (2)	\$10.06	4160.00	<u>\$41,849.60</u>	\$330,366.40	
2 FSFC staff positions shifted				<u>(\$68,310.00)</u>	\$262,056.40
<u>UCF</u>					
Professor	\$54.67	1200.00	\$65,604.00		
Adjunct Instructor	\$21.21	200.00	<u>\$4,242.00</u>		\$69,846.00
<u>UF</u>					
Professor	\$54.67	1500.00	\$82,005.00		
Adjunct Instructor	\$21.21	250.00	<u>\$5,302.50</u>		\$87,307.50
<u>FSU</u>					
Professor	\$54.67	1500.00	\$82,005.00		
Adjunct Instructor	\$21.21	250.00	<u>\$5,302.50</u>		<u>\$87,307.50</u>
TOTAL LABOR					\$506,517.40
OTHER DIRECT COSTS					
<u>FSFC</u>					
TRAVEL (See Detail)			\$23,554.20		
MISC. MATERIALS & SUPPLIES			<u>\$5,000.00</u>		\$28,554.20
<u>UCF</u>					
TRAVEL (See Detail)			\$3,971.60		
MISC. MATERIALS & SUPPLIES			<u>\$1,000.00</u>		\$4,971.60
<u>UF</u>					
TRAVEL (See Detail)			\$3,971.60		
MISC. MATERIALS & SUPPLIES			<u>\$1,000.00</u>		\$4,971.60
<u>FSU</u>					
TRAVEL (See Detail)			\$3,971.60		
MISC. MATERIALS & SUPPLIES			<u>\$1,000.00</u>		\$4,971.60
TOTAL OTHER DIRECT COSTS				<u>\$4,971.60</u>	<u>\$43,469.00</u>
TOTAL DIRECT COSTS					<u><u>\$549,986.40</u></u>

NOTE : \$25,000 in Revenue from CEU Courses, etc. to supplement program

INSTITUTE FOR SIMULATION AND TRAINING

**FLORIDA FIRE TRAINING
"HIGH OPTION"**

YEAR 3

DIRECT COSTS

LABOR (See Detail)	RATES	HOURS	COST	
<u>FSFC</u>				
Sr. Instructor (4)	\$25.29	8320.00	\$210,412.80	
Director	\$25.29	2080.00	\$52,603.20	
Training Specialist (2)	\$17.08	2080.00	\$35,526.40	
Secretary (2)	\$10.40	4160.00	<u>\$43,264.00</u>	\$341,806.40
2 FSFC staff positions shifted				<u>(\$70,700.85)</u> \$271,105.55
<u>UCF</u>				
Professor	\$56.59	900.00	\$50,931.00	
Adjunct Instructor	\$21.95	150.00	<u>\$3,292.50</u>	\$54,223.50
<u>UF</u>				
Professor	\$56.59	1200.00	\$67,908.00	
Adjunct Instructor	\$21.95	200.00	<u>\$4,390.00</u>	\$72,298.00
<u>FSU</u>				
Professor	\$56.59	1200.00	\$67,908.00	
Adjunct Instructor	\$21.95	200.00	<u>\$4,390.00</u>	<u>\$72,298.00</u>
TOTAL LABOR				\$469,925.05
OTHER DIRECT COSTS				
<u>FSFC</u>				
TRAVEL (See Detail)			\$23,554.20	
MISC. MATERIALS & SUPPLIES			<u>\$5,000.00</u>	\$28,554.20
<u>UF</u>				
TRAVEL (See Detail)			\$3,971.60	
MISC. MATERIALS & SUPPLIES			<u>\$1,000.00</u>	\$4,971.60
<u>FSU</u>				
TRAVEL (See Detail)			\$3,971.60	
MISC. MATERIALS & SUPPLIES			<u>\$1,000.00</u>	\$4,971.60
TOTAL OTHER DIRECT COSTS				<u>\$38,497.40</u>
TOTAL DIRECT COSTS				<u><u>\$508,422.45</u></u>

NOTE : \$40,000 in Revenue from CEU Courses, etc. to supplement program

INSTITUTE FOR SIMULATION AND TRAINING

**FLORIDA FIRE TRAINING
"HIGH OPTION"**

YEAR 4

DIRECT COSTS

LABOR (See Detail)	<u>RATES</u>	<u>HOURS</u>	<u>COST</u>	
<u>FSFC</u>				
Sr. Instructor (4)	\$26.18	8320.00	\$217,817.60	
Director	\$26.18	2080.00	\$54,454.40	
Training Specialist (2)	\$17.69	2080.00	\$36,795.20	
Secretary (2)	\$10.77	4160.00	<u>\$44,803.20</u>	\$353,870.40
2 FSFC staff positions shifted				<u>(\$73,175.38)</u> \$280,695.02
<u>UCF</u>				
Professor	\$58.57	600.00	\$35,142.00	
Adjunct Instructor	\$22.72	100.00	<u>\$2,272.00</u>	\$37,414.00
<u>UF</u>				
Professor	\$58.57	900.00	\$52,713.00	
Adjunct Instructor	\$22.72	150.00	<u>\$3,408.00</u>	\$56,121.00
<u>FSU</u>				
Professor	\$58.57	900.00	\$52,713.00	
Adjunct Instructor	\$22.72	150.00	<u>\$3,408.00</u>	<u>\$56,121.00</u>
TOTAL LABOR				\$430,351.02
OTHER DIRECT COSTS				
<u>FSFC</u>				
TRAVEL (See Detail)			\$23,554.20	
MISC. MATERIALS & SUPPLIES			<u>\$5,000.00</u>	
TOTAL OTHER DIRECT COSTS				<u>\$28,554.20</u>
TOTAL DIRECT COSTS				<u>\$458,905.22</u>

NOTE : \$75,000 in Revenue from CEU Courses, etc. to supplement program

INSTITUTE FOR SIMULATION AND TRAINING

**FLORIDA FIRE TRAINING
"HIGH OPTION"**

YEAR 5

DIRECT COSTS

LABOR (See Detail)	<u>RATES</u>	<u>HOURS</u>	<u>COST</u>	
<u>FSFC</u>				
Sr. Instructor (4)	\$27.10	8320.00	\$225,472.00	
Director	\$27.10	2080.00	\$56,368.00	
Training Specialist (2)	\$18.30	2080.00	\$38,064.00	
Secretary (2)	\$11.14	4160.00	<u>\$46,342.40</u>	\$366,246.40
2 FSFC staff positions shifted				<u>(\$75,736.52)</u> \$290,509.88
<u>UCF</u>				
Professor	\$60.62	300.00	\$18,186.00	
Adjunct Instructor	\$23.52	50.00	<u>\$1,176.00</u>	\$19,362.00
<u>UF</u>				
Professor	\$60.62	600.00	\$36,372.00	
Adjunct Instructor	\$23.52	100.00	<u>\$2,352.00</u>	\$38,724.00
<u>FSU</u>				
Professor	\$60.62	600.00	\$36,372.00	
Adjunct Instructor	\$23.52	100.00	<u>\$2,352.00</u>	<u>\$38,724.00</u>
TOTAL LABOR				\$387,319.88
OTHER DIRECT COSTS				
<u>FSFC</u>				
TRAVEL (See Detail)			\$23,554.20	
MISC. MATERIALS & SUPPLIES			<u>\$5,000.00</u>	
TOTAL OTHER DIRECT COSTS				<u>\$28,554.20</u>
TOTAL DIRECT COSTS				<u><u>\$415,874.08</u></u>

NOTE : \$100,000 in Revenue from CEU Courses, etc. to supplement program

INSTITUTE FOR SIMULATION AND TRAINING

FLORIDA FIRE TRAINING
"HIGH OPTION"

TRAVEL DETAIL

Cost per Trip

FSFC Travel

OCALA, FL

1	Traveler (s)	1	Day(s) /	0	Night(s)	40	Trip(s)		
1	Days Subsistance @	\$21.00	/ day					\$21.00	
1	Travelers Vicinity Mileage @	144.00	miles @	\$0.29	/ mi			\$41.76	
								<u>\$62.76</u>	\$2,510.40

MID-POINT, FL

2	Traveler (s)	4	Day(s) /	3	Night(s)	16	Trip(s)		
4	Days Subsistance @	\$21.00	/ day for	2	Traveler (s)			\$168.00	
3	Nights Lodging @	\$63.00	/ night for	2	Traveler (s)			\$378.00	
1	Travelers Vicinity Mileage @	500.00	miles @	\$0.29	/ mi			\$145.00	
								<u>\$691.00</u>	<u>\$11,056.00</u>

FSFC TRAVEL YR 1

\$13,566.40

FSFC Travel

OCALA, FL

1	Traveler (s)	1	Day(s) /	0	Night(s)	45	Trip(s)		
1	Days Subsistance @	\$21.00	/ day					\$21.00	
1	Travelers Vicinity Mileage @	144.00	miles @	\$0.29	/ mi			\$41.76	
								<u>\$62.76</u>	\$2,824.20

MID-POINT, FL

2	Traveler (s)	4	Day(s) /	3	Night(s)	30	Trip(s)		
4	Days Subsistance @	\$21.00	/ day for	2	Traveler (s)			\$168.00	
3	Nights Lodging @	\$63.00	/ night for	2	Traveler (s)			\$378.00	
1	Travelers Vicinity Mileage @	500.00	miles @	\$0.29	/ mi			\$145.00	
								<u>\$691.00</u>	<u>\$20,730.00</u>

FSFC TRAVEL YR 2 - 5

\$23,554.20

INSTITUTE FOR SIMULATION AND TRAINING

**FLORIDA FIRE TRAINING
"HIGH OPTION"**

TRAVEL DETAIL

UCF, UF, FSU Travel

OCALA, FL

1	Traveler (s)	1	Day(s) /	0	Night(s)	10	Trip(s)		
1	Days Subsistance @	\$21.00	/ day					\$21.00	
1	Travelers Vicinity Mileage @	144.00	miles @	\$0.29	/ mi			\$41.76	
								<u>\$62.76</u>	\$627.60

MID-POINT, FL

1	Traveler (s)	4	Day(s) /	3	Night(s)	8	Trip(s)		
4	Days Subsistance @	\$21.00	/ day for	1	Traveler (s)			\$84.00	
3	Nights Lodging @	\$63.00	/ night for	1	Traveler (s)			\$189.00	
1	Travelers Vicinity Mileage @	500.00	miles @	\$0.29	/ mi			\$145.00	
								<u>\$418.00</u>	<u>\$3,344.00</u>

UCF, UF, FSU TOTAL TRAVEL YR 1 - 3

\$3,971.60

RATE SHEET - for DSR use only

duration : July 1, 1996 - June 30, 2001 (5 yr. effort)

Labor Category	Personnel	Current Salary **	Jan-96 3.5% Inc.	Jan-97 3.5% Inc.	Jan-98 3.5% Inc.	Jan-99 3.5% Inc.	Jan-00 3.5% Inc.	Jan-01 3.5% Inc.
FSFC								
Sr. Instructor	TBA (2)	\$34,039.00	\$35,230.37	\$36,463.43	\$37,739.65	\$39,060.54	\$40,427.66	\$41,842.83
Director	TBA	\$34,039.00	\$35,230.37	\$36,463.43	\$37,739.65	\$39,060.54	\$40,427.66	\$41,842.63
Training Specialist	TBA (2)	\$23,000.00	\$23,805.00	\$24,638.18	\$25,500.52	\$26,393.04	\$27,316.80	\$28,272.89
Secretary	TBA (2)	\$14,000.00	\$14,490.00	\$14,997.15	\$15,522.05	\$16,065.32	\$16,627.61	\$17,209.58
Librarian Internship	TBA	\$6.00	\$6.21	\$6.43	\$6.66	\$6.89	\$7.13	\$7.38
UCF								
Professor	TBA	\$77,333.33	\$80,040.00	\$82,841.40	\$85,740.65	\$88,741.78	\$91,847.74	\$95,062.41
Chair, Dept. P.A.	Lawther, W	\$66,077.00	\$68,389.70	\$70,783.34	\$73,260.76	\$75,824.89	\$78,478.76	\$81,225.52
Adjunct Instructor	TBA	\$30,000.00	\$31,050.00	\$32,136.75	\$33,261.54	\$34,425.69	\$35,630.59	\$36,877.66
Distance Ed. Specialist	Okoniewski, R	\$60,850.00	\$62,979.75	\$65,184.04	\$67,465.48	\$69,826.77	\$72,270.71	\$74,800.18
UF								
Professor	TBA	\$77,333.33	\$80,040.00	\$82,841.40	\$85,740.85	\$88,741.78	\$91,847.74	\$95,062.41
Adjunct Instructor	TBA	\$30,000.00	\$31,050.00	\$32,136.75	\$33,261.54	\$34,425.69	\$35,630.59	\$36,877.66
FSU								
Professor	TBA	\$77,333.33	\$80,040.00	\$82,841.40	\$85,740.85	\$88,741.78	\$91,847.74	\$95,062.41
Adjunct Instructor	TBA	\$30,000.00	\$31,050.00	\$32,136.75	\$33,261.54	\$34,425.69	\$35,630.59	\$36,877.66

	Year 1 : 7/1/96 - 6/30/97			Year 2 : 7/1/97 - 6/30/98			Year 3 : 7/1/98 - 6/30/99			Year 4 : 7/1/99 - 6/30/00			Year 5 : 7/1/00 - 6/30/01		
	Weighted Salary	Weighted Hourly	w/Fringe **	Weighted Salary	Weighted Hourly	w/Fringe **	Weighted Salary	Weighted Hourly	w/Fringe **	Weighted Salary	Weighted Hourly	w/Fringe **	Weighted Salary	Weighted Hourly	w/Fringe **
FSFC															
Sr. Instructor	\$35,846.90	\$17.23	\$23.61	\$37,101.54	\$17.84	\$24.44	\$38,400.10	\$18.46	\$25.29	\$39,744.10	\$19.11	\$26.18	\$41,135.15	\$19.78	\$27.10
Director	\$35,846.90	\$17.23	\$23.61	\$37,101.54	\$17.84	\$24.44	\$38,400.10	\$18.46	\$25.29	\$39,744.10	\$19.11	\$26.18	\$41,135.15	\$19.78	\$27.10
Training Specialist	\$24,221.59	\$11.64	\$15.95	\$25,069.35	\$12.05	\$16.51	\$25,946.78	\$12.47	\$17.08	\$26,854.92	\$12.91	\$17.69	\$27,794.85	\$13.36	\$18.30
Secretary	\$14,743.56	\$7.09	\$9.71	\$15,259.60	\$7.34	\$10.06	\$15,793.69	\$7.59	\$10.40	\$16,346.47	\$7.86	\$10.77	\$16,918.60	\$8.13	\$11.14
Librarian Internship	\$6.32	\$6.32	\$6.34	\$6.55	\$6.55	\$6.57	\$6.78	\$6.78	\$6.80	\$7.01	\$7.01	\$7.03	\$7.26	\$7.26	\$7.28
UCF															
Professor	\$81,440.70	\$39.15	\$52.82	\$84,291.13	\$40.52	\$54.67	\$87,241.32	\$41.94	\$56.59	\$90,294.76	\$43.41	\$58.57	\$93,455.08	\$44.93	\$60.62
Chair, Dept. P.A.	\$69,586.52	\$33.48	\$45.14	\$72,022.05	\$34.63	\$46.72	\$74,542.83	\$35.84	\$48.36	\$77,151.83	\$37.09	\$50.04	\$79,852.14	\$38.39	\$51.80
Adjunct Instructor	\$31,593.36	\$15.19	\$20.49	\$32,699.15	\$15.72	\$21.21	\$33,843.62	\$16.27	\$21.95	\$35,028.14	\$16.84	\$22.72	\$36,254.13	\$17.43	\$23.52
Distance Ed. Specialist	\$64,081.90	\$30.81	\$41.57	\$66,324.76	\$31.89	\$43.03	\$68,646.13	\$33.00	\$44.52	\$71,048.74	\$34.16	\$46.09	\$73,535.45	\$35.35	\$47.69
UF															
Professor	\$81,440.70	\$39.15	\$52.82	\$84,291.13	\$40.52	\$54.67	\$87,241.32	\$41.94	\$56.59	\$90,294.76	\$43.41	\$58.57	\$93,455.08	\$44.93	\$60.62
Adjunct Instructor	\$31,593.36	\$15.19	\$20.49	\$32,699.15	\$15.72	\$21.21	\$33,843.62	\$16.27	\$21.95	\$35,028.14	\$16.84	\$22.72	\$36,254.13	\$17.43	\$23.52
FSU															
Professor	\$81,440.70	\$39.15	\$52.82	\$84,291.13	\$40.52	\$54.67	\$87,241.32	\$41.94	\$56.59	\$90,294.76	\$43.41	\$58.57	\$93,455.08	\$44.93	\$60.62
Adjunct Instructor	\$31,593.36	\$15.19	\$20.49	\$32,699.15	\$15.72	\$21.21	\$33,843.62	\$16.27	\$21.95	\$35,028.14	\$16.84	\$22.72	\$36,254.13	\$17.43	\$23.52

** NOTES :

(1) Universities Professor's Academic Salary = \$58,000; Current Salary is based on 12-mo salary

(2) Fringe Rates =

Faculty / Staff	34.92%
OPS	7.95%
GRA	0.30%

INSTITUTE FOR SIMULATION AND TRAINING

**FLORIDA FIRE TRAINING
"LOW OPTION"**

YEAR 1

DIRECT COSTS

LABOR (Rates include Fringe Benefits)	RATES	HOURS	COST	
<u>FSFC</u>				
Sr. Instructor (2)	\$23.61	4160.00	\$98,217.60	
Training R&D Manager	\$23.61	2080.00	\$49,108.80	
Training Specialist	\$15.95	2080.00	\$33,176.00	
Secretary	\$9.71	2080.00	\$20,196.80	\$200,699.20
2 FSFC staff positions shifted				<u>(\$66,000.00)</u>
				\$134,699.20
<u>UCF</u>				
Professor	\$52.82	1500.00	\$79,230.00	
Asst. Professor	\$29.14	750.00	\$21,855.00	
Chair, Dept. P.A.	\$45.14	208.00	\$9,389.12	
Adjunct Instructor(s)	\$20.49	250.00	\$5,122.50	
Distance Ed. Specialist	\$41.57	245.00	\$10,184.65	\$125,781.27
Distance Ed Link - OPS Contract				<u>\$10,000.00</u>
				<u>\$135,781.27</u>
TOTAL LABOR				\$270,480.47
OTHER DIRECT COSTS				
<u>FSFC</u>				
EQUIPMENT			\$10,000.00	
TRAVEL (see detail)			\$12,875.40	
MISC. MATERIALS & SUPPLIES			<u>\$3,500.00</u>	
				\$26,375.40
<u>UCF</u>				
TRAVEL (See Detail)			\$3,971.60	
MISC. MATERIALS & SUPPLIES			\$1,000.00	
DISTANCE ED LINK - EQUIPMENT			<u>\$10,000.00</u>	
				<u>\$14,971.60</u>
TOTAL OTHER DIRECT COSTS				\$41,347.00
TOTAL DIRECT COSTS				<u>\$311,827.47</u>

NOTE : \$5000 in Revenue from CEU Courses, etc. to supplement program at FSFC

INSTITUTE FOR SIMULATION AND TRAINING

**FLORIDA FIRE TRAINING
"LOW OPTION"**

YEAR 2

DIRECT COSTS

LABOR (Rates include Fringe Benefits)	RATES	HOURS	COST	
<u>FSFC</u>				
Sr. Instructor (2)	\$24.44	4160.00	\$101,670.40	
Director	\$24.44	2080.00	\$50,835.20	
Training Specialist (2)	\$16.51	2080.00	\$34,340.80	
Secretary	\$10.06	2080.00	<u>\$20,924.80</u>	\$207,771.20
2 FSFC staff positions shifted				<u>(\$68,310.00)</u>
				\$139,461.20
<u>UCF</u>				
Professor	\$54.67	1200.00	\$65,604.00	
Asst. Professor	\$30.17	1200.00	\$36,204.00	
Adjunct Instructor	\$21.21	750.00	\$15,907.50	
Sr. Instructor (2)	\$24.44	3328.00	<u>\$81,336.32</u>	<u>\$199,051.82</u>
TOTAL LABOR				\$338,513.02
OTHER DIRECT COSTS				
<u>FSFC</u>				
TRAVEL (See Detail)			\$14,257.40	
MISC. MATERIALS & SUPPLIES			<u>\$5,000.00</u>	
				\$19,257.40
<u>UCF</u>				
TRAVEL (See Detail)			\$10,890.52	
MISC. MATERIALS & SUPPLIES			<u>\$1,000.00</u>	
				<u>\$11,890.52</u>
TOTAL OTHER DIRECT COSTS				\$31,147.92
TOTAL DIRECT COSTS				<u>\$369,660.94</u>

NOTE : \$25,000 in Revenue from CEU Courses, etc. to supplement program at FSFC

INSTITUTE FOR SIMULATION AND TRAINING

**FLORIDA FIRE TRAINING
"LOW OPTION"**

YEAR 3

DIRECT COSTS

LABOR (See Detail)	<u>RATES</u>	<u>HOURS</u>	<u>COST</u>	
<u>FSFC</u>				
Sr. Instructor (2)	\$25.29	4160.00	\$105,206.40	
Director	\$25.29	2080.00	\$52,603.20	
Training Specialist (2)	\$17.08	2080.00	\$35,526.40	
Secretary	\$10.40	2080.00	<u>\$21,632.00</u>	\$214,968.00
2 FSFC staff positions shifted				<u>(\$70,700.85)</u>
				\$144,267.15
<u>UCF</u>				
Professor	\$56.59	900.00	\$50,931.00	
Asst. Professor	\$31.22	900.00	\$28,098.00	
Sr. Instructor (2)	\$25.29	2496.00	<u>\$63,123.84</u>	<u>\$142,152.84</u>
TOTAL LABOR				\$286,419.99
OTHER DIRECT COSTS				
<u>FSFC</u>				
TRAVEL (See Detail)			\$16,330.40	
MISC. MATERIALS & SUPPLIES			<u>\$5,000.00</u>	
TOTAL OTHER DIRECT COSTS				<u>\$21,330.40</u>
TOTAL DIRECT COSTS				<u><u>\$307,750.39</u></u>

NOTE : \$40,000 in Revenue from CEU Courses, etc. to supplement program at FSFC

INSTITUTE FOR SIMULATION AND TRAINING

FLORIDA FIRE TRAINING
"LOW OPTION"

YEAR 4

DIRECT COSTS

LABOR (See Detail)	RATES	HOURS	COST	
<u>FSFC</u>				
Sr. Instructor (2)	\$26.18	4160.00	\$108,908.80	
Director	\$26.18	2080.00	\$54,454.40	
Training Specialist (2)	\$17.69	2080.00	\$36,795.20	
Secretary	\$10.77	2080.00	<u>\$22,401.60</u>	\$222,560.00
2 FSFC staff positions shifted				<u>(\$73,175.38)</u>
				\$149,384.62
<u>UCF</u>				
Professor	\$58.57	600.00	\$35,142.00	
Asst. Professor	\$32.31	600.00	\$19,386.00	
Sr. Instructor (2)	\$26.18	1664.00	<u>\$43,563.52</u>	<u>\$98,091.52</u>
TOTAL LABOR				\$247,476.14
OTHER DIRECT COSTS				
<u>FSFC</u>				
TRAVEL (See Detail)			\$18,026.20	
MISC. MATERIALS & SUPPLIES			<u>\$5,000.00</u>	
TOTAL OTHER DIRECT COSTS				<u>\$23,026.20</u>
TOTAL DIRECT COSTS				<u><u>\$270,502.34</u></u>

NOTE : \$75,000 in Revenue from CEU Courses, etc. to supplement program at FSFC

INSTITUTE FOR SIMULATION AND TRAINING

**FLORIDA FIRE TRAINING
"LOW OPTION"**

YEAR 5

DIRECT COSTS

LABOR (See Detail)	RATES	HOURS	COST	
<u>FSFC</u>				
Sr. Instructor (2)	\$27.10	4160.00	\$112,736.00	
Director	\$27.10	2080.00	\$56,368.00	
Training Specialist (2)	\$18.30	2080.00	\$38,064.00	
Secretary	\$11.14	2080.00	<u>\$23,171.20</u>	\$230,339.20
2 FSFC staff positions shifted				<u>(\$75,736.52)</u>
				\$154,602.68
<u>UCF</u>				
Professor	\$60.62	300.00	\$18,186.00	
Asst. Professor	\$33.45	300.00	\$10,035.00	
Sr. Instructor	\$27.10	832.00	<u>\$22,547.20</u>	\$50,768.20
TOTAL LABOR				\$205,370.88
OTHER DIRECT COSTS				
<u>FSFC</u>				
TRAVEL (See Detail)			\$20,099.20	
MISC. MATERIALS & SUPPLIES			<u>\$5,000.00</u>	
TOTAL OTHER DIRECT COSTS				<u>\$25,099.20</u>
TOTAL DIRECT COSTS				<u><u>\$230,470.08</u></u>

NOTE : \$100,000 in Revenue from CEU Courses, etc. to supplement program at FSFC

INSTITUTE FOR SIMULATION AND TRAINING

FLORIDA FIRE TRAINING - "LOW OPTION"

TRAVEL DETAIL

Cost per Trip

FSFC Travel

OCALA, FL

1 Traveler (s) 1 Day(s) / 0 Night(s) 40 Trip(s)

1 Days Subsistance @	\$21.00 / day		\$21.00	
1 Travelers Vicinity Mileage @	144.00 miles @	\$0.29 / mi	\$41.76	
			<u>\$62.76</u>	\$2,510.40

MID-POINT, FL

2 Traveler (s) 4 Day(s) / 3 Night(s) 15 Trip(s)

4 Days Subsistance @	\$21.00 / day for	2 Traveler (s)	\$168.00	
3 Nights Lodging @	\$63.00 / night for	2 Traveler (s)	\$378.00	
1 Travelers Vicinity Mileage @	500.00 miles @	\$0.29 / mi	\$145.00	
			<u>\$691.00</u>	\$10,365.00

FSFC TRAVEL YR. 1

\$12,875.40

FSFC Travel

OCALA, FL

1 Traveler (s) 1 Day(s) / 0 Night(s) 40 Trip(s)

1 Days Subsistance @	\$21.00 / day		\$21.00	
1 Travelers Vicinity Mileage @	144.00 miles @	\$0.29 / mi	\$41.76	
			<u>\$62.76</u>	\$2,510.40

MID-POINT, FL

2 Traveler (s) 4 Day(s) / 3 Night(s) 17 Trip(s)

4 Days Subsistance @	\$21.00 / day for	2 Traveler (s)	\$168.00	
3 Nights Lodging @	\$63.00 / night for	2 Traveler (s)	\$378.00	
1 Travelers Vicinity Mileage @	500.00 miles @	\$0.29 / mi	\$145.00	
			<u>\$691.00</u>	\$11,747.00

FSFC TRAVEL YR. 2

\$14,257.40

FSFC Travel

OCALA, FL

1 Traveler (s) 1 Day(s) / 0 Night(s) 40 Trip(s)

1 Days Subsistance @	\$21.00 / day		\$21.00	
1 Travelers Vicinity Mileage @	144.00 miles @	\$0.29 / mi	\$41.76	
			<u>\$62.76</u>	\$2,510.40

MID-POINT, FL

2 Traveler (s) 4 Day(s) / 3 Night(s) 20 Trip(s)

4 Days Subsistance @	\$21.00 / day for	2 Traveler (s)	\$168.00	
3 Nights Lodging @	\$63.00 / night for	2 Traveler (s)	\$378.00	
1 Travelers Vicinity Mileage @	500.00 miles @	\$0.29 / mi	\$145.00	
			<u>\$691.00</u>	\$13,820.00

FSFC TRAVEL YR. 3

\$16,330.40

INSTITUTE FOR SIMULATION AND TRAINING

FLORIDA FIRE TRAINING - "LOW OPTION"

TRAVEL DETAIL

FSFC Travel

OCALA, FL

1	Traveler (s)	1	Day(s) /	0	Night(s)	45	Trip(s)		
1	Days Subsistance @	\$21.00	/ day					\$21.00	
1	Travelers Vicinity Mileage @	144.00	miles @	\$0.29	/ mi			\$41.76	
								\$62.76	\$2,824.20

MID-POINT, FL

2	Traveler (s)	4	Day(s) /	3	Night(s)	22	Trip(s)		
4	Days Subsistance @	\$21.00	/ day for	2	Traveler (s)			\$168.00	
3	Nights Lodging @	\$63.00	/ night for	2	Traveler (s)			\$378.00	
1	Travelers Vicinity Mileage @	500.00	miles @	\$0.29	/ mi			\$145.00	
								\$691.00	\$15,202.00

FSFC TRAVEL YR. 4

\$18,026.20

FSFC Travel

OCALA, FL

1	Traveler (s)	1	Day(s) /	0	Night(s)	45	Trip(s)		
1	Days Subsistance @	\$21.00	/ day					\$21.00	
1	Travelers Vicinity Mileage @	144.00	miles @	\$0.29	/ mi			\$41.76	
								\$62.76	\$2,824.20

MID-POINT, FL

2	Traveler (s)	4	Day(s) /	3	Night(s)	25	Trip(s)		
4	Days Subsistance @	\$21.00	/ day for	2	Traveler (s)			\$168.00	
3	Nights Lodging @	\$63.00	/ night for	2	Traveler (s)			\$378.00	
1	Travelers Vicinity Mileage @	500.00	miles @	\$0.29	/ mi			\$145.00	
								\$691.00	\$17,275.00

FSFC TRAVEL YR. 5

\$20,099.20

RATE SHEET - for DSR use only

duration : July 1, 1996 - June 30, 2001 (5 yr. effort)

Labor Category	Personnel	Current Salary **	Jan-96 3.5% Inc.	Jan-97 3.5% Inc.	Jan-98 3.5% Inc.	Jan-99 3.5% Inc.	Jan-00 3.5% Inc.	Jan-01 3.5% Inc.
FSFC								
Sr. Instructor	TBA (2)	\$34,039.00	\$35,230.37	\$36,463.43	\$37,739.65	\$39,060.54	\$40,427.66	\$41,842.63
Director	TBA	\$34,039.00	\$35,230.37	\$36,463.43	\$37,739.65	\$39,060.54	\$40,427.66	\$41,842.63
Training Specialist	TBA (2)	\$23,000.00	\$23,605.00	\$24,638.18	\$25,500.52	\$26,393.04	\$27,316.80	\$28,272.89
Secretary	TBA	\$14,000.00	\$14,490.00	\$14,997.15	\$15,522.05	\$16,065.32	\$16,627.61	\$17,209.58
UCF								
Professor	TBA	\$77,333.33	\$80,040.00	\$82,841.40	\$85,740.85	\$88,741.78	\$91,847.74	\$95,062.41
Asst. Professor	TBA	\$42,666.67	\$44,160.00	\$45,705.60	\$47,305.30	\$48,960.99	\$50,674.62	\$52,448.23
Chlr, Dept. P.A.	Lawther, W	\$66,077.00	\$68,389.70	\$70,783.34	\$73,260.78	\$75,824.69	\$78,478.76	\$81,225.52
Adjunct Instructor	TBA	\$30,000.00	\$31,050.00	\$32,136.75	\$33,261.54	\$34,425.69	\$35,630.59	\$38,877.66
Distance Ed. Specialist	Okonlewski, R	\$60,850.00	\$62,979.75	\$65,184.04	\$67,465.48	\$69,826.77	\$72,270.71	\$74,800.18

	Year 1 : 7/1/96 - 6/30/97			Year 2 : 7/1/97 - 6/30/98			Year 3 : 7/1/98 - 6/30/99			Year 4 : 7/1/99 - 6/30/00			Year 5 : 7/1/00 - 6/30/01		
	Weighted Salary	Weighted Hourly	w/Fringe **	Weighted Salary	Weighted Hourly	w/Fringe **	Weighted Salary	Weighted Hourly	w/Fringe **	Weighted Salary	Weighted Hourly	w/Fringe **	Weighted Salary	Weighted Hourly	w/Fringe **
FSFC															
Sr. Instructor	\$35,846.90	\$17.23	\$23.61	\$37,101.54	\$17.84	\$24.44	\$38,400.10	\$18.46	\$25.29	\$39,744.10	\$19.11	\$26.18	\$41,135.15	\$19.78	\$27.10
Director	\$35,846.90	\$17.23	\$23.61	\$37,101.54	\$17.84	\$24.44	\$38,400.10	\$18.46	\$25.29	\$39,744.10	\$19.11	\$26.18	\$41,135.15	\$19.78	\$27.10
Training Specialist	\$24,221.59	\$11.64	\$15.95	\$25,069.35	\$12.05	\$16.51	\$25,948.78	\$12.47	\$17.08	\$26,854.92	\$12.91	\$17.69	\$27,794.85	\$13.36	\$16.30
Secretary	\$14,743.58	\$7.09	\$9.71	\$15,259.60	\$7.34	\$10.06	\$15,793.69	\$7.59	\$10.40	\$16,346.47	\$7.86	\$10.77	\$16,918.60	\$8.13	\$11.14
UCF															
Professor	\$81,440.70	\$39.15	\$52.82	\$84,291.13	\$40.52	\$54.67	\$87,241.32	\$41.94	\$56.59	\$90,294.76	\$43.41	\$58.57	\$93,455.08	\$44.93	\$60.62
Asst. Professor	\$44,932.80	\$21.60	\$29.14	\$46,505.45	\$22.36	\$30.17	\$48,133.15	\$23.14	\$31.22	\$49,817.81	\$23.95	\$32.31	\$51,561.43	\$24.79	\$33.45
Chlr, Dept. P.A.	\$69,588.52	\$33.46	\$45.14	\$72,022.05	\$34.63	\$46.72	\$74,542.83	\$35.84	\$48.36	\$77,151.83	\$37.09	\$50.04	\$79,852.14	\$38.39	\$51.80
Adjunct Instructor	\$31,593.38	\$15.19	\$20.49	\$32,699.15	\$15.72	\$21.21	\$33,843.62	\$16.27	\$21.95	\$35,028.14	\$16.84	\$22.72	\$36,254.13	\$17.43	\$23.52
Distance Ed. Specialist	\$64,081.90	\$30.81	\$41.57	\$66,324.76	\$31.89	\$43.03	\$68,646.13	\$33.00	\$44.52	\$71,048.74	\$34.16	\$46.09	\$73,535.45	\$35.35	\$47.69

** NOTES :

(1) Universities Professor's Academic Salary = \$58,000, Asst Prof. = \$32,000; Current Salary is based on 12-mo salary

(2) Fringe Rates =

Faculty / Staff	34.92%
OPS	7.95%
GRA	0.30%

Appendix B Florida Community College Fire Science Programs

Florida Community College Fire Science Programs						
College	Contact	Department	Fax E-mail	Last Yr. Enrollment(E) Graduated(G)	Five Yr. Enrollment(E) Graduated(G)	Training Provided Comments
Brevard Community College 519 Clearlake Road Cocoa 32922 (407) 632-1111 ext 64177	Cindy Cameron	Fire Science Technology	634-3731	100 (E) 10-12 (G)	500 (E) 50-60 (G)	Associate of Science Certificate - Fire Science
Broward Community College 225 E. Las Olas Blvd. Ft. Lauderdale (305) 469-6788	Fred J. Deal	Fire Science Technology		300 (E) 20-30 (G)	1500 (E) 75 (G)	Associate of Science
Central Florida Community College P.O. Box 1388 Ocala 32678-1388 (904) 526-2761	Jeff Osterman	Fire Science Technology		120 (E) 12-15 (G)	600 (E) 60-75 (G)	Associate of Science (offered through FL State Fire College)
Chipola Junior College 3094 Indian Circle Mairanna 32446 (904) 526-2761	Harrell Glissan	Public Service	526-3571	50 (E) 5-6 (G)	300 (E) 25-30 (G)	Associate of Science
Daytona Beach Community College P.O. Box 2811 Daytona Beach 32115-2811 (904) 255-8131	Julie Wight	Center for Continuing and Business Professional Education	254-4465	45 (E) 6 (G)	225 (E) 30 (G)	Associate of Science
Edison Community College P.O. Box 06210 Ft. Myers 33906-62106 (813) 489-9392	Nancy Jerz	Public Service	941-9331	135 (E) 15 (G)	650 (E) 75 (G)	Associate of Science
Florida Community College at Jacksonville 501 W. State Street Jacksonville 32202-4030 (904) 646-2181	Joseph Fowler	Public Service	jfowler@fccjvm.c c.fl.us	7 (E) 7 (G)	35 (E) 35 (G)	Certificate - Fire Fighting
Florida Keys Community College 5901 W. Junior College Rd. Key West 33040 (305) 296-9081	NA	NA	NA	NA	NA	N

Florida Community College Fire Science Programs

College	Contact	Department	Fax E-mail	Last Yr. Enrollment(E) Graduated(G)	Five Yr. Enrollment(E) Graduated(G)	Training Provided Comments
Gulf Coast Community College 5230 W. Highway 98 Panama City 332401-1044 (904) 872-3876	Bob Jones	Technology	872-3836	60-90 (E)	300-450 (E)	Associate of Science Fire Science EMT
Hillsborough Community College P.O. Box 31127 Tampa 33631-3127 (813) 253-7628	Van Day	Fire Science Technology		AS - 1300 (E) AS - 600 (G) Cert. - 200 (E)	6500 (E) 2500 (G) 1000 (E)	Associate of Science (Offer transfer option for 4 yr. degree USF) Large fast growing program
Indian River Community College 3209 Virginia Ave. Fort Pierce 34981-5599 (407) 462-4700 ext 4761	Mike Dashosh	Public Service Education	464-0165	30-35 (E) 3 (G)	105-150 (E) 15 (G)	Associate of Science
Lake City Community College Route 3, Box 7 Lake City 32055-8703 (904) 752-1822	NA	NA	NA	NA	NA	None
Lake-Sumter Community College 9501 US 441 South Leesburg 34788-8751 (904) 792-6463 ext 108	Wyman Orders	Vocational Technology		90-120 (E) 4-5 (G)	450-600 (E) 20-25 (G)	Associate of Science
Manatee Community College P.O. Box 1849 Bradenton 34206-1849 (813) 755-1511 ext 4385	Cindy Vensel	Social Sciences	755-1511-4599	31 (E) 5 (G)	124 (E) 31 (G)	Associate of Science
Miami-Dade (North) Community College 300 N.E. Second Ave Miami 33132-2297 (305) 237-1360 or 237-1482	Ray McDonald		685-6164	120 (E) 20 (G)	600 (E) 120-130 (G)	Associate of Science
North Florida	NA	NA	NA	NA	NA	None

Florida Community College Fire Science Programs

College	Contact	Department	Fax E-mail	Last Yr. Enrollment(E) Graduated(G)	Five Yr. Enrollment(E) Graduated(G)	Training Provided Comments
Community College 1000 Turner Davis Dr Madison 32340 (904) 973-2288						
Okaloosa-Walton Community College 100 College Blvd. Niceville 32578 (904) 729-5378	Dr. Ned Couey	Public Safety	729- 5278	NA	NA	Certificate - Fire Science (Distance Learning in cooperation with Pensacola Jr. College)
Pasco-Hernando Community College 36727 Blanton Road Dade City 33525-7599 (904) 484-567-6701 ext 1003	Bruce Sutherland	Vocational Technology	567-601- 1950	Cert.- 35 (E) AS- 45 (E) 2-3 (G)	Cert.- 175 (E) AS - 225 (E) 10-15 (G)	Associate of Science Academy Certificate
Pensacola Junior College 1000 College Blvd. Pensacola 32504-8998 (904) 484-1000 ext 2577	Frank Coinacchione	Public Service	484- 1829	Cert. - 25 (E) 20 (G) AS - 50 (E) 3 (G)	160 (E) 5 (G)	Associate of Science Academy Certificate
Polk Community College 999 Avenue H, N.E. Winter Haven 33881-4299 (813) 297-1000 ext 6210	David Buckley	Business and Technology	(941) 297- 1034 dbuckley @ mail.polk .cc.fl.us	7-8 (E) 1-2 (G)	35-40 (E) 5-10 (G)	Associate of Science (Fire courses offered by Ridge Technical Center)
St. Johns River Community College 5001 St. Johns Ave. Palatka 32177 (904) 328-1571	Peggy White	Business and Technology	328- 7606	15-20 (E) 2-3 (G)	75-100 (E) 10-15 (G)	Associate of Science (In cooperation with the St. Augustine Technical Center - Certificate program)
St. Petersburg Jr. College P.O. Box 13489 St. Petersburg 33733 (813) 341-4479	George Buck	Fire Science Technology	341- 4547 buckg@e mail. spjc.cc.fl .us	102 (E) 0 (G)	110 (E) 0 (G)	Associate of Science (Fast growing program only in 2nd year and only 8 in the 1st year)

Florida Community College Fire Science Programs

College	Contact	Department	Fax E-mail	Last Yr. Enrollment(E) Graduated(G)	Five Yr. Enrollment(E) Graduated(G)	Training Provided Comments
South Florida Community College 600 W. College Drive Avon Park 33825-9399 (813) 453-6661	NA	NA	NA	NA	NA	None
Tallahassee Community College 444 Appleyard Drive Tallahassee 32304-2895 (904) 922-8154	Brian Dunmyer	Applied Sciences	488- 2203	34-37 (E) 34-37 (G)	170-185 (E) 170-185 (G)	Associate of Science - Emergency Medical Services Technology Certificate - Emergency Medical Technology
Valencia Community College P.O. Box 3028 Orlando 3282-3028 (407) 299-5000 ext 1551	Randy Tuten	Health and Public Service	293- 8839	40 (E) 4-5 (G)	200 (E) 30 (G)	Associate of Science - Fire Science Technology
Total				2880 (E) 780 (G)	11430 (E) 3480 (G)	

Appendix C Course Descriptions

General

Fire/Rescue and Emergency Management Operations (3)

(Taught by FSFC)

This course addresses the mitigation of damage and problems of commanding fire department and emergency management operations in large-scale disasters such as earthquakes, hurricanes, tornadoes, floods, and terrorist attacks.

The class applies the Integrated Emergency Management System and the Incident Command System in disaster situations. Course units include: hazard preparedness; response and recovery; command and control; scenario simulations of disasters.

Organizational Theory in Practice for Emergency Services(3)

(Taught by FSFC and Universities)

This course is designed to prepare fire service and emergency management executives to implement the organizational theory as it relates in practice to the fire service and emergency management organizations. During the course, students acquire knowledge and develop the skills to operate an organization efficiently and effectively. Included are exercises of strategic organizational issues associated with planning, staffing, directing, and controlling an emergency management organization. Units of instruction include organization definition and structure; explanation and application of theory; planning in an organization; theories of organization and management; control and evaluation within an organization; organizational analysis; leadership styles and supervisory practices; decision making; and organizational communication.

A course project report requires students to identify a problem in their department or division and develop various organizational theories learned.

Analytic Approaches to Public Emergencies (3)

(Taught by FSFC and Universities)

A presentation of techniques of operations research and systems analysis as they apply to problems in fire/rescue protection and emergency management. Discussion covers techniques such as cost/benefit analysis, methods for locating fire and other emergency response stations and emergency management resources, and the use of statistical analysis. The course covers techniques for collecting data on fires and other public emergencies and for managing information.

Personnel Management for Emergency Services (3)

(Taught by FSFC and Universities)

This course examines personnel practices, management procedures, collective bargaining, binding arbitration, and applicable legislative and administrative procedures. Topics addressed include promotion, personnel development, career and incentive systems, budgets, validation of physical requirements, and managerial and supervisory procedures.

Principles of Occupational and Environmental Safety (3)

(Taught by FSFC and Universities)

This course examines health and safety issues covered in the regulation and policies of Federal agencies including: the Occupational Safety Health Administration (OSHA), the Environmental Protection Agency (EPA), and the National Institute of Occupation and Safety and Health (NIOSH). It also covers principles of accident and injury protection, and legal and economic issues.

Political and Legal Foundations of Fire Protection and Emergency Management (3)

(Universities)

This course explores the legal, political and social aspects of the government's role in public safety, including the American legal system, liability, negligence, code enforcement, and public sector personnel issues.

The responsibility, legal limitations, and liability of fire-prevention and emergency management organizations are examined. Judicial decisions are reviewed, with a focus on the implications of product-liability cases in the field of fire-prevention (e.g. federal statutes for FEMA, case law for codes, and Americans with Disabilities Act).

Managerial Issues in Hazardous Materials (3)

(Taught by FSFC)

This course examines regulatory issues, hazard analysis, multi-agency contingency planning, response personnel, multi-agency response resources, agency policies, procedures and implementation, public education and emergency information systems, health and safety, multi-jurisdictional incident management dynamics, strategic and tactical considerations, recovery and termination procedures, and program evaluation. Funding source and cost recovery issues are covered.

Human Behavior in Public Emergencies (3)

(Universities)

Explanation of dynamics of human behavior in fire incidents, and other public emergencies. The functions and implementation of prevention practices, programs, codes and ordinances are stressed. The concepts of risk, personal invulnerability, role and group dynamics are examined in relation to design aspects of buildings and mitigation of the effects of fire and other disasters on modern society. Discussion deals with proper ways of conducting post disaster interviews, and emphasizes the psychological effects of communications during emergencies.

Applications of Fire/Rescue and Emergency Management Research (3)

(Universities)

A practical, up-to-date review of emergency management research and its application. The transfer of research and its implications for managing disaster preparedness, response and recovery in fire prevention and protection programs are addressed. The focus is on both national and international studies and on maintaining awareness of ongoing research developments. The student will also be introduced to new computer based tools for managing emergencies (e.g. SoftRisk, and EIS).

Fire Administration

Fire Service Leadership I (3 credit hours)

(Taught by FSFC)

This course addresses various leadership topics including general approaches, use of innovation and creativity, risk-taking, and knowledge of the political process. Students first learn to expand their thought process, approach problems in a positive manner, and look beyond the surface of a problem. Innovative approaches are then discussed, using creativity and recognizing it in others. Next, risk-taking skills are developed, including picking battles, risk/threat analysis, and developing effective personnel skills. The last portion of the course deals with the political process as it concerns the fire service. This includes methods of interacting with all levels of government, learning to effectively operate within the system, and developing and effectively using personal contacts.

Fire Service Leadership II (3 credit hours)

(Taught by FSFC)

Topics covered in this course include technical competence, the fiscal process, negotiation skills, and current issues in Fire Emergency Leadership. Students learn about managerial systems and the personal qualities of good managers. Financial issues include

intimacy with financial concepts (amortization, ROI, cost/benefit analysis, revenue streams, budgeting outputs, argue outputs, competition/privitization); analyzing budgets; revenue producers; all within a political context. Students also learn negotiation skills, including purchasing, communication, and mediation/arbitration. Finally, current issues in Fire Emergency Leadership are discussed.

Executive Leadership in the Fire Service (3)

(Taught by FSFC)

This course is designed specifically for the Chief Fire Executive or those who aspire to the position; it provides a framework for participants to conceptualize and use key processes to improve executive-level skills. Curricula include an extensive battery of self- and observer-based assessment, case study, role-playing, and mock negotiation sessions. Participants complete a “personal self-assessment plan” to create desirable goals in their professional, personal, community, and family life areas. Course units include “headship” versus leadership; multiple roles; creativity; management process; decision making; organizational culture; managing change; labor relations; and evaluation.

Disaster and Fire Defense Planning (3)

(Taught by FSFC)

This course covers concepts and principles of assessing community risk, and then developing regional and cooperative procedures and plans of response. The analysis covers the relationship of structural, climatic, and topological variables to group fires, conflagrations, and natural disasters. Other aspects introduced include pre- and post-occurrence factors, such as organization, communications, planning, coordination, and command and logistics.

Management of Emergency Medical Services (3)

(Taught by FSFC and Universities)

This course focuses on current and emerging management practices as they relate to Emergency Medical Services (EMS) in the fire service. This interactive and fast-moving course will enable participants to deal more effectively with day-to-day management issues that supervisory-level managers are likely to encounter. Situational, scenario-based instruction is the foundation of this course, with an emphasis on problem-solving and decision making techniques. Leadership techniques as they relate to establishing and managing relationships within the medical community are also an important part of this course.

Strategic Analysis of Community Risk Reduction (3)

(Taught by FSFC and Universities)

This is an intensive program which provides senior fire executives with vital information necessary to implement community-wide risk reduction activities. Presented are contemporary approaches that emergency services organizations can successfully utilize

to compete for dwindling resources, mechanisms to gather and analyze critical life safety data, proven actions to target community injury reduction, and how to build coalitions to better accomplish the changing mission of the fire and safety services.

The course reflects current trends and practices suitable for immediate use by course participants. It features group activities, role-playing, and in-depth review of highly successful risk intervention strategies. It examines attitudes and values of senior fire agency executives and their relationship to creative, innovative, and effective fire and injury prevention activities. The course uses case study and research methodology in the educational process.

Code Management: A Systems Approach (3)

(Taught by FSFC)

The management of code development, evaluation, and enforcement processes is the focus of this course. Students participate in a extensive simulation exercise that allows them to experience firsthand the intricacies and politics involved in the legislative process. A second exercise involves amendment of an existing code.

Students will participate in simulations of the code appeals process, that will provide the student with a greater awareness of the code management function as an integrated process.

Analytical Approaches to Public Fire Protection (3)

(Taught by FSFC and Universities)

An introduction to systems analysis procedures and applications in fire protection, including systems thinking, statistical analysis using graphs and spread sheets, statistical concepts and their application to the fire service, fire incident analysis, fire station location, fire department financial analysis and performance surveys, using results and public fire protection.

Management of Fire Prevention Programs (3)

(Taught by FSFC and Universities)

This course uses management concepts as a basis for the efficient operation of a fire loss management bureau. Topics include management techniques; evaluation; legal responsibilities; needs assessment; negotiation; planning; current code evaluation, fire loss risk assessment, community interaction; and executive fire loss management functions.

Emergency Management

Introduction to Emergency Management (3)

(Taught by FSFC and Universities)

This course examines the need for an emergency management system and the importance of an integrated approach to managing emergencies. Participants formulate the elements of an integrated teamwork system and devise specific actions for improving their own contributions to local emergency management teams. The course is for all disciplines that work together in planning for or responding to emergencies.

Community Response to Public Emergencies (3)

(Taught by FSFC and Universities)

An analysis of the sociological, economic, and political characteristics of communities and their influence on the fire problem. Methods of studying community profiles and structures are presented: the economic, geographic, and sociological variables of the fire threat are discussed. The functional basis of the community examined, with attention to the diverse social roles of community agencies and the roles of the fire service as a complex organization with the community.

Practicum: Emergency Management Exercise (3)

(Taught by FSFC and Universities)

This course involves planning for, conducting, and evaluating a large-scale emergency management exercise (e.g. large municipal area, State, or Federal). The students will report on their activities in a seminar format and document the exercise as a technical report or case study appropriate for publication.

Confined Space

Confined Space Awareness (Certification)

(FSFC and Universities)

This one day program is designed to give the participant an overview of the confined space entry and rescue standard. The program is directed at the individual who is responsible for the permit process and the assignment of employees or contractors to work in confined spaces. The training will assist the individual in designing and administering a site-specific confined space compliance program in accordance with OSHA 29 CFR 1910.146.

Confined Space Awareness and Entry (Certification)

(FSFC)

This two-day program is designed to give the participant the knowledge and skills to prevent employee injury in the dangerous confined space environment. Each student will demonstrate the safety techniques and procedures necessary to identify and enter confined space in accordance with the OSHA regulations, utilizing the site-specific permit process. The training will meet or exceed the requirements of OSHA 29 CFR 1910.146 for Confined Space Entry.

Confined Space Entry and Rescue (Certification)

(FSFC)

This three-day course is designed to give the student the knowledge and skills needed to prevent employee injury and teach procedures to safely enter confined spaces. Special attention will be given to rescue/safety techniques and the equipment necessary to perform in the confined space scenario. These objectives will be accomplished through classroom lecture and extensive practical evaluations that will meet or exceed the requirements of OSHA 29 CFR 1910.146 for Confined Space Entry.

Industrial Hazardous Materials/Confined Space Refresher Programs (Certification)

(FSFC)

This program is a specially designed one-day training session to meet the annual refresher training requirements as specified in the OSHA regulations. This program is open to all personnel involved with or responsible for providing emergency response services to industry. Refresher training in self-contained breathing apparatus will be completed in the morning. Special refresher tracks will be provided in the afternoon for Hazardous Materials Operations and Technician, and Confined Space Entry and Rescue.

Construction

Competent Person Training for Trench Construction (Certification)

(FSFC or Universities)

This one-day program reviews the OSHA requirements for excavation and trench construction as outlined in 29 CFR 1926 Subpart P. The training will review the qualifications for the "competent person; who is required on site to address site safety, soil analysis, selection of protective systems, installation of protective systems, and additional requirements of the standard.

OSHA Overview for Construction (Certification)

(FSFC or Universities)

This one-day seminar provides an overview of the OSHA standards applicable to construction activities. The purpose of the program is to aid managers and construction superintendents to understand the federal and state regulations pertaining to construction, and to identify the resources needed to comply with the regulations. In addition, participants will learn the methods for assessing risk levels to aid in developing safety and regulatory compliances for the specific construction sites. The presentation will highlight recent changes and proposed legislation related to the construction industry.

Hazardous Materials Site Worker (Certification)

(FSFC)

This three-day course reviews the identification of hazards and reduction of risk utilizing the OSHA 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response (HAZ WOPER) standard. Site characterization and site plan implementation are presented to the participants. The program is designed for those personnel who may be required to work on a hazardous materials site or with the recovery of hazardous waste. Emphasis is placed on the hands-on approach to training so that each student will perform the procedures required to safely work in a hazardous environment and handle hazardous materials. This course satisfies the OSHA training requirements of 29 CFR 1910.120 for Hazardous Materials Site Worker.

Hazardous Materials Site Worker Supervisor (Certification)

(FSFC)

This three-day program presents the knowledge and skills required for satisfying the Site Work Supervisor outlined in the OSHA 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response standard. This program is designed for on-site managers and supervisors who are responsible for employees working with hazardous materials wastes. The program will review site plans, employee safety and health plans, personal protective equipment requirements, medical surveillance and related safety standards.

Emergency Medical and Fitness

Bloodborne and Airborne Pathogens Management Workshop (Certification)

(FSFC or Universities)

This program is intended for managers, safety directors, and hygienists who are responsible for the health and safety of company employees. The program will cover topics such as determining who is covered by the standard, writing and implementing an exposure control plan, universal precautions, handling and disposal of contaminated materials, and the training requirements of the standard. Participants will be able to use

this knowledge and information to determine what is needed for their own company or organization to comply with the OSHA 29 CFR 1910.1030.

Industrial Medical First Responder (Certification)

(FSFC)

This five-day program is designed to give the student the knowledge and skills to provide initial care for patients suffering injury or sudden illness. The First Responder will be able to assess patients, provide basic life support, and render care that is necessary to prevent medical and injury-related problems from Emergency Medical Services First Responder Certification (which meets or exceeds the American Red Cross Standard First Aid course). This certification also meets the medical requirements of Hazardous Materials Technician (OSHA 1910.146).

Fall Protection

Fall Protection (Certification)

(FSFC)

This three-day industrial fall protection training course is designed to give the participant the knowledge and skills needed to prevent serious injury or fatal accidents from falls including use, applications, and limits of personal fall protection equipment, portable and fixed-ladder systems, ropes and rigging, and fall protection for confined spaces. In the hands-on portion of training, the student will apply lessons in actual climbing scenarios using fall protection equipment and techniques. The program is based on current general industrial and construction OSHA standards and will address issues in proposed revisions of the standards.

Hazardous Materials

Industrial Hazardous Materials - Awareness (Certification)

(FSFC and Universities)

This one-day program is for individuals whose position may require them to report a hazardous materials incident. Emphasis is placed on the identification of hazardous materials and effective reporting systems. The program is also designed to provide an overview of the standard for supervisors responsible for employees or contractors who may be exposed to, or handle, hazardous materials. This course satisfies the OSHA training requirements of 29 CFR 1910.120.

Industrial Hazardous Materials - First Responder Operations (Certification)
(FSFC)

This three-day program is for individuals who respond to releases and potential releases of hazardous substances to protect life, environment, and property. Emphasis is placed on the hands-on training to respond in a defensive fashion to contain or control a hazardous materials incident within the capacity of the resources and equipment available on site. This course satisfies the OSHA training requirements of 29 CFR 1910.120.

Regulatory Supervision and Leadership

Managers' and Supervisors' Overview of OSHA Regulations (Certification)
(FSFC and Universities)

This one-day seminar is intended to aid managers and industrial safety personnel in understanding federal and state regulations pertaining to hazardous operations and emergency response team activities and training. In addition, participants will learn the methods for assessing risk levels to aid in developing emergency response training packages for their specific facility. The presentation will highlight recent changes and proposed legislation in industrial and governmental facility emergency response.

Lock/Tagout Program Management (Certification)
(FSFC and Universities)

The one-day seminar is designed to assist the manager or supervisor in understanding OSHA 29 CFR 1910.147, Lockout/Tagout, and to provide guidelines for implementing a compliant safety program. Participants will also review related standards and program evaluation procedures.

Emergency Action Plans and Evacuation Seminar (Certification)
(FSFC and Universities)

This one-day program is designed to provide participants an overview of the OSHA 29 CFR 1910.38 regulation and assistance in understanding the requirements for an emergency action plan. Participants will have an opportunity to study and evaluate programs already in place and gain some insight into administering the plans. Guidelines for developing needs assessments, hazard assessments, and manageable evacuation plans will be presented. Participants will be introduced to coordinated planning with emergency response plans, PSM planning, and other OSHA requirements.

Overview of Process Safety Management (Certification)

(FSFC and Universities)

This one-day seminar is designed to provide participants an overview of the OSHA 29 CFR 1910.119 regulation and assistance in understanding the requirements for process safety management. Emphasis will be placed on defining the regulation, required procedures for compliance, employee training requirements for operating a process, contract employee responsibilities, process maintenance activities, and process hazard analysis methodology.

Safety and OSHA Compliance Self-Inspection Workshop (Certification)

(FSFC and Universities)

This two-day program will overview the design and implementation of a safety self-inspection program to meet various OSHA regulatory standards including fire protection, hazard communication, hazardous materials, confined space, personal protective equipment, and other related standards. Participants will utilize the OSHA Field Inspection Reference Manual to develop procedures for inspection similar to those handled by compliance officers.

Implementing a Hazardous Materials RIGHT-TO-KNOW Program (Certification)

(FSFC and Universities)

This one-day program is designed for the manager or supervisor responsible for the design, implementation, and monitoring of a hazardous materials communication program including laboratories as specified by OSHA 29 CFR 1910.1450. The program will include exercises in developing both compliance and training programs.

Special Topics and Presentations

Emergency Response Team Leader Seminar (Certification)

(FSFC)

This three-day program is designed to provide the knowledge and skills for leaders of industrial emergency response teams and fire brigades. This develops basic leadership concepts and skills, explores Incident Command Systems and Industrial Incident Management, and reviews regulatory compliance and regulatory standards for industrial emergency preparedness. Industrial incident management situations are simulated. Participants will complete the requirements for ON-Scene Incident Commander under OSHA 29 CFR 1910.120, Hazardous Materials.

Industrial Respiratory Protection Workshop (Certification)

(FSFC)

This three-day program is designed to provide specialized training in the use and application of self-contained breathing apparatus (SCBA) and filter-type respiratory protection for the industrial worker and emergency responder. This program will enhance the student's understanding and knowledge of respiratory protection through education and experience. Practical evaluations will require the participant to be in good physical condition.

Industrial Hazardous Materials - Technician (Certification)

(FSFC)

This five-day program is designed to develop knowledge and skills in handling and managing a hazardous materials incident. It is intended for those personnel who may respond, operate, and manage a hazardous materials incident. Emphasis is placed on the hands-on approach to training so that each student will perform the procedures required to confine, contain, or control a hazardous materials incident within the capacity of the resources and equipment available on site. This course satisfies the OSHA training requirements of 290 CFR 1910.120 for Hazardous Materials Technician.

Industrial Hazardous Materials/Confined Space Refresher Programs (Certification)

(FSFC)

This program is a one-day training session designed to meet the annual refresher training requirements as specified in OSHA regulations. This program is open to all personnel involved with or responsible for providing emergency response services to industry. Refresher training in self-contained breathing apparatus will be completed in the morning. Special refresher tracks will be provided in the afternoon for Hazardous Materials Operations and Technician, and Confined space Entry and Rescue.

Packaging and Shipping Hazardous Materials Workshop (Certification)

(FSFC and Universities)

This two-day program is for the employee who handles loading and unloading of small quantities of hazardous materials. The program will review the regulatory requirements for packaging, transporting, and operation a transport vehicle. The program is based on the requirements of DOT Title 49 CFR 171-177.

Industrial Fire Suppression

Introduction to Industrial Fire Suppression (Certification) (FSFC)

This three-day program is for individuals responsible for industrial fire suppression activities at the Designated Employee and Incipient Fire Brigade levels. The course is designated to give the student the basic knowledge and skills required to be an effective industrial fire fighter. The objectives will be accomplished by classroom lecture and practical evolutions. Response team members will be trained in evacuation, fire safety, fire behavior, fire extinguishers, low-volume hose lines, and basic fire detection and sprinkler systems.

Appendix D Fire Academy Models

Texas A & M

An example of a state fire academy is the famous Texas Agricultural and Mechanical (Texas A & M) Institute, which for years has been considered a hallmark among fire training institutions.

The Fire Protection Training Division of the Texas Engineering Extension Service was established in 1930 to train municipal fire fighters in Texas. Since then the division has expanded to include a 60-acre training field in College Station designed to accommodate public and industrial clients. The division also has staff members based at regional training centers across the state. Some of the programs offered are an annual municipal firefighters' training school, annual hazardous materials control school, annual Spanish "bomberos" training school, annual international aircraft rescue and fire fighting school, schools for marine fire protection, and many industrial fire protection schools.

Illinois Fire Service Institute

A different example is the Illinois Fire Service Institute. It is operated as a continuing education and public service activity by the University of Illinois and is administered through the university's Office of Corporate and Public Services. The institute has become a model program, imitated in many other states.

The institute is financed by a tax on fire insurance and related premiums. One-eighth of this one-percent tax is designated for Illinois Fire service Institute use. This allows the institute to offer most course and services free of charge.

The Illinois Fire Service Institute uses several types of instructional staff to conduct its programs. Full-time faculty cordite and teach the several types of specialized courses offered both on and off campus. They also are responsible for most of the institute's consultation, evaluation, an research activities.

To supplement the full-time faculty, the institute uses part-time instructors. They teach most of the institute's own field training programs, such as confined space rescue. The also are used to teach classes in their areas of specialization. When courses required additional expertise, guest instructors are used. They maybe fire service personnel or university faculty, and frequently are used in the fire officer and hazardous materials curricula.

Appendix E FSFC Dormitory Upgrade Recommendations

The Fire College dormitory features 7 barracks-style rooms (74 total bunk beds) and 12 motel-style rooms (34 total beds). The furnishings are minimal, at best, with one-inch mattresses and students providing their own towels. In recruit school, students (and visiting instructors) stay in the motel rooms for one to five weeks. There are two small weight rooms and two TV lounges with snack machines.

Because of the Fire College's remote location, on-site housing is important but never gets good marks on student evaluations. Cafeteria seating capacity is just under 100 but the campus can have as many as 500 students on-site at one time.

The Fire College's utility systems are all at or near maximum capacity. Adding sleeping, cooking, or shower/toilet facilities will require additional capacity. Another important system is housekeeping, provided presently by only one custodial worker and intermittent community service workers.

Recommendations:

Short-Term:

1. Facility survey on utilities capacity, suitability of grounds for new construction, suitability of existing buildings for renovation/expansion.
2. Repaint and carpet existing dormitory wing (has not been done since campus opened) and correct humidity problems.
3. Establish a contract for housekeeping (to include evening cleaning of offices and classrooms).
4. Upgrade beds and linens for all motel-style rooms.

Medium-Term:

1. Remodel three of the barracks into six to nine motel-style rooms with two to four being upgraded for visiting instructors, DOI/SFM staff.
2. Establish a contract for full-scale linen service.
3. Enlarge cafeteria seating capacity to accommodate 175+ and include a staff dining room with capacity of 30 that could double as an extra conference room when not in use for meals.

Long Term:

1. Construct a three-story dormitory facility.
2. Establish a position for a full-time evening dorm counselor/supervisor.

Appendix F Existing Education/Training Organizations Affected by Proposed Changes

Several professional organizations will be affected by the proposed changes to the education/training of Florida firefighters/EM personnel:

Florida Fire Chief's Association (President - Bill Dryburgh)

This group stands to be affected the most by the plan as the employers of 90+% of the firefighters in Florida. In recent years, their stand has been to support increased professionalism via the formalized degree-seeking process. However, the budget impact may cause fiscal hardships that many chiefs cannot support.

This organization is involved in increased political activity with a full-time lobbyist now in Tallahassee to oversee interests in labor and personnel safety issues.

Professional Firefighters of Florida (President - Bob Carver)

This is the state-wide umbrella labor organization that represents (lobbies) for unionized firefighters in Florida. Headquarters are in Tallahassee where Mr. Carver and his staff meet frequently with legislators.

They may demonstrate significant interest in this report as it impacts the future certification/qualification needs of the state's firefighters and future labor force.

International Society of Fire Service Instructors - Florida Chapter (President - Don Widing)

This group is the officially recognized representative of fire, rescue, EMS and emergency services instructors for the parent group named The Alliance. Although the plan will not directly impact the organization, many members will be affected due to their full-time instructor status with many of the State's fire departments affected.

Appendix G Certified Training Centers in Florida

Broward Fire Academy
Ms. Patricia Gaiefsky
2600 S. W. 71st Terrace
Davie, Florida 33314
(305) 474-855-8217

Central Florida Emergency Services Inst.
Mid-Florida Tech.
William L. Miles, Coordinator
2966 West Oak Ridge Road, Suite 606
Orlando, Florida 32809
(407) 855-3281

Charlotte County Vo-Tech Center
Bob Logan, Coordinator
18300 Toledo Blade Boulevard
Port Charlotte, Florida 33948-3399
(813) 629-6819

Chipola Junior College
Michael Dolan, Coordinator
Fire Science Department
3094 Indian Circle
Marianna, Florida 32446
(904) 526-2761

Dade City Training Center
Assistant Chief R. N. McBee
14317 4th Street
Dade City, Florida 33525
(904) 521-1494

Daytona Beach Community College
Julie Wight, Fire Science Manager
1200 International Speedway Boulevard
Daytona Beach, Florida 32120-2811
(904) 255-8131 ext.

Florida State Fire College
Don Manno, Superintendent
11655 North West Gainesville Road
Ocala, Florida 34482-1486
(904) 732-1330

Ft. Walton Bch. Fire Training Center
Bay Area Vocational School
David Messerschmidt, Coordinator
1976 Louis Turner Boulevard
Fort Walton Beach, Florida 32548
(904) 833-3500

Hialeah F.D. Training Center
Division Chief Michael Walsh
7590 West 24th Avenue
Hialeah, Florida 33016
(305) 824-5714

Hillsborough Community College
Van Elliot Day, Fire Science Coord.
P.O. Box 5096
Tampa, Florida 33675-5096
(813) 253-7628

Indian River Community College
Michael Dashosh, Coordinator
3209 Virginia Avenue
Fort Pierce, Florida 33450
(407) 462-4761

Jacksonville Fire Training Academy
Lt. R. L. Snelling
2700 Firefighter Memorial Drive
Jacksonville, Florida 32246
(904) 645-0124

Lake County Vo-Tech Center
Kenneth Bragg Public Safety Complex
Wyman Orders, Administrator
12900 Lane Park Cutoff Rd., Rm. 410A

Lively Fire Training Academy
Larry Swartz, Coordinator
500 Appleyard Drive
Tallahassee, Florida 32304
(904) 488-7610

Ft. Myers Fire Academy
Danny G. Ballard, Coordinator
2404 Dr. Martin Luther King Jr. Blvd.
Ft. Myers, Florida 33901
(813) 334-6222

Miami-Dade Community College
Tony Muniz, Coordinator
South East FL Academy of Fire Science
11380 N. W. 27th Avenue
Miami, Florida 33167
(305) 237-1360

Miami Training Center
Chief Steve E. Abraira
3425 Jefferson Street
Coconut Grove, Florida 33133
(305) 446-0722

Naples F.D. Training Center
Alan McLaughlin, Training Chief
977 26th Avenue, North
Naples, Florida 33940
(813) 4344736

Panama City Training Center
Captain Larry Morris
611 East Highway 98
Panama City, Florida 32401
(904) 872-3059

Pensacola Fire Academy
Frank Cornacchione, Director
1000 College Boulevard
Pensacola, Florida 32504-8998
(904) 484-1000

Miami Beach F.D. Training Center
Lt. James Barrett
2300 Pinetree Drive
Miami Beach, Florida 33140
(305) 673-7140

Ridge Technical Center
Terry Hancock, Coordinator
7700 State Road 544 North
Winter Haven, Florida 33881
(813) 299-2512

St. Augustine Fire Academy
Douglas Stewart, Director
2980 Collins Avenue
St. Augustine, Florida 32095
(904) 823-3941

Sarasota County Technical Institute
Fire Science Department
James Dowling, Coordinator
4748 Beneva Road
Sarasota, Florida 34233
(813) 361-6629

Seminole Community College
Dan Folsom, Fire Science
100 Weldon Boulevard
Sanford, Florida 32773
(407) 328-2199

South Technical Education Center
Jack McCartt, Director
1300 S.W. 30th Avenue
Boynton Beach, Florida 33426
(407) 369-7049

Pinellas Technical Education Center
St. Petersburg Campus
Paul Roberts, Coordinator
901 34th Street South
St. Petersburg, Florida 33711
(813) 893-2500 ext. 1095

Venice Fire Academy
Joe Fiorentino, Director
112 South Harbor Drive
Venice, Florida 34285
(813) 492-3196

Port Orange Fire Training Center
Chief Joe Landerville
P.O. Box Drawer 291038
Port Orange, Florida 32129
(904) 756-5401

Volusia County Fire Training Center
Barry G. Ellis, Coordinator
3889 Tiger Boy Road
Daytona Beach, Florida 32124
(904) 239-6427

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