

# **Baccalaureate Degree Proposal**

## **Bachelor of Applied Science in Fire Science**

**Florida Community College  
At Jacksonville  
May 19, 2005**



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C O M M U N I T Y  
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A T J A C K S O N V I L L E

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# ***Proposal Overview***

Florida Community College at Jacksonville seeks authority to offer the Bachelor of Applied Science in Fire Science. Supporting rationale for this request includes:

- Responsiveness to significant needs identified by area employers;
- Enhanced ability of fire service and other emergency services agencies to meet public safety needs of the region recognized by local government and civic leaders post-9/11;
- Responsiveness to the educational and career advancement needs of incumbent and future workers in fire service agencies;
- Efficient use of existing facilities, equipment and partnerships developed with public funds;
- Effective use of the College's expertise in fire science curricula and its success in providing low cost, convenient instruction;
- Effective evolution of the College's Fire Training Center which has served for the last 15 years as the regional fire training center for northeast Florida.

Community support of Florida Community College at Jacksonville's proposed Bachelor of Applied Science (B.A.S.) degree in Fire Science is extraordinarily high. The strong support expressed by fire chiefs and city officials affirms the recognition of the critical need for enhanced preparation of fire service professionals. No educational institution in the Jacksonville area currently provides opportunities at the bachelor's degree level, and such preparation is increasingly required for individuals in this field. At the same time, fire science technologies have become so complex that a two-year degree is no longer sufficient preparation for leadership and advanced practice in this critical public service. The complexities of managing a large fire department require that future leaders have a formal education in advanced fire and emergency response management skills and practices demanded by a post-9/11 environment.

In this environment, the firefighting profession faces significantly increased challenges, requiring education beyond the traditional fire service skills, including knowledge in new areas such as hazardous materials and chemical preparedness, first responder counter-terrorism training, urban search and rescue management, and inter-agency coordination during catastrophic events. Moreover, leaders and managers of these significant public assets need the skills to manage multi million dollar operations with large employment complements. The State of Florida recognizes these needs and provides a pay incentive for firefighters who obtain a bachelor's degree related to fire service. Similarly, the City of Jacksonville provides a 100% match of the state pay incentive to firefighters obtaining a fire-related bachelor's degree.

For these reasons, fire and city officials in northeast Florida agree with the U.S. Fire Administration and National Fire Academy recommendations that anyone in a management position should be required to have a bachelor's degree. The Jacksonville Fire/Rescue Department (JFRD) estimates that only about 1% of the 364 officers in the department currently serving in management (fire chiefs) or supervisory positions (lieutenants and captains) have a fire science related bachelor's degree. Promotion in the future will require an appropriate bachelor's degree, creating an increasing and unmet demand for educational

opportunity. Jacksonville is reflecting national trends in its recognition of the need for advanced education in the field, as evidenced in this observation:

*“Emergency management today is a constant educational process, and if the local emergency manager does not wish to continue their education, they will find they have been left behind and are ineffective in their community.”* (Jerry VeHaun, Past President International Association of Emergency Managers *DisasterCom*, April 2004)

The B.A.S. degree in Fire Science is a logical and efficient extension of the highly successful Associate in Science (A.S.) degree in Fire Science Technology offered for many years by Florida Community College at Jacksonville (FCCJ). The ability to offer the specialized training needed is dependent upon very specific and expensive facilities. The existing Fire Training Academy at the College—the most extensive and sophisticated of its type in Florida—provides the necessary specialized facilities and equipment to deliver excellent advanced training in this field. With these facilities and with the related technical equipment in place, there is significant untapped capability and capacity without significant new investment of public dollars.

The need for this program is so great that this proposal has very strong support from fire officials, municipal leaders and university presidents throughout northeast Florida. (Please see letters of support in Appendix D.) Both the University of North Florida and Jacksonville University endorse this proposal in recognition of the critical need and the fact that it is not advisable to duplicate, at great expense to the taxpayer, the educational facilities and capabilities already in place at FCCJ. Additionally, research shows that continuous enrollment in a specialized program increases graduation rates.

Florida Community College at Jacksonville has the curricular and instructional expertise to develop and deliver baccalaureate instruction in this field quickly and effectively. As an active participant in the Fire Emergency Services Higher Education conferences held at the National Fire Academy since 1999, the College has developed the program’s curriculum through employer and student input, using as a basis the model baccalaureate curriculum recommended by the National Fire Academy. This curriculum trains professionals to bring to a fire department leadership team the requisite knowledge, technical competencies and operational skills necessary for contemporary, high-performance leadership.

The fire emergency management and public official stakeholders have clearly expressed the need for fire service leaders to have enhanced management expertise and advanced practice capabilities to respond more effectively to the critical situations firefighters face in today’s higher-activity environment. The College’s proposed B.A.S. degree is designed to maximize student success and address these fire service imperatives by:

- Basing the degree on the National Fire Academy Model curriculum;
- Designing the degree as a Bachelor of Applied Science to provide management expertise and hands-on advanced practice education early in the program with subsequent reinforcement later in the curriculum;
- Expanding geographic access to the degree for a profession with varying work schedules and shift requirements through the use of advanced academic technology and innovative and adapted methods of course delivery;
- Expanding financial access to the degree through optimally affordable community college tuition and fees;

- Providing for effective and efficient A.S. degree articulation to the B.A.S. degree;
- Providing a career ladder for advancement in the profession by articulating the Postsecondary Adult Vocational Fire Minimum Standards Training credential with the A.S. degree in Fire Science Technology;
- Providing a faculty of certified fire fighters and leaders with appropriate degrees and professional experience;
- Distributing general education courses throughout the four years of the program, rather than being concentrated in the first two years, thereby enabling students to enter the job market earlier, gain experience and apply their education as they continue it.

Given the current scope and complexity of homeland security, tomorrow's firefighters will need preparation which is both specialized and complementary to their counterparts in law enforcement and other public service fields. The proposed curriculum will allow for future multi-threat specialization in such areas as airport and seaport fire and disaster response management, needs which are specific to northeast Florida. Further, this curriculum will meet both regional and statewide needs for state-of-the-art training in emergency response management. Importantly, future development of the program has been planned to involve integrated critical incident management training for fire services, law enforcement and emergency management professionals.

An enhanced level of safety provided by a more professionally trained fire service force is a priority to the City of Jacksonville, America's 14th largest city in population. Jacksonville is the largest city in the contiguous United States in land area and is home to a major port, rail services, chemical companies, an international airport, and a stadium which is home to a National Football League team, all of which require advanced fire service capabilities.

On behalf of the fire and emergency management stakeholders who are committed to this degree's success, Florida Community College at Jacksonville is enthusiastic about submitting this proposed Bachelor of Applied Science degree in Fire Science in response to Northeast Florida's priority for ensuring well-educated firefighters equipped to provide an enhanced level of safety to our citizens and community organizations.

# I. Need

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## **Is the need for a baccalaureate program in an area of critical concern? Is the need significant – indicating a current shortage?**

**Yes.** The strong support expressed by fire officials, university presidents, and municipal leaders throughout northeast Florida affirms the critical need for enhanced preparation of fire service professionals. Significant elevation of the challenges faced by members of the firefighting profession in a post 9-11 environment necessitates education beyond the traditional fire service areas, to include knowledge in new areas such as hazardous materials and chemical preparedness, first responder counter-terrorism training, and urban search and rescue management. The State of Florida recognizes this need and provides a pay incentive for firefighters who obtain a bachelor's degree related to fire service, and the City of Jacksonville provides a match in incentive pay as well.

Under the U.S. Fire Administration and National Fire Academy recommendations, anyone in a management position should have a bachelor's degree. The Jacksonville Fire/Rescue Department Training Chief indicates that of the 364 officer positions in the Jacksonville Fire/Rescue Department (JFRD), which are management (Fire Chiefs) or supervisory positions seeking to be promoted to Chief (Lieutenants and Captains), although 85 have bachelor's degrees, approximately *only 1% have a fire science related bachelor's degree.*

The transition to a post 9-11 era has made apparent to the City of Jacksonville its significant shortage of fire professionals with advanced leadership and practice skills critical to providing requisite levels of safety effectively to its citizens. The City of Jacksonville recently began assessing needs for fire and emergency management professionals for Northeast Florida.

*"It is critical that the City of Jacksonville has the ability to provide highly skilled and well-trained fire service professionals. ... Our city is home to significantly "at risk" locations such as a major port, rail services, chemical companies, an international airport, and Alltel Stadium. Accordingly, it is time to upgrade the capabilities of our fire professionals and their department. We will be hiring many new firefighters and promoting many current fire service professionals to management positions."*

Elaine Brown, President  
Jacksonville City Council

Factors driving the demand for fire and emergency management professionals include the explosion in population in Northeast Florida, an unprecedented number of retiring officers, staffing for seventeen (17) new fire stations over the next five years, and new staffing policies for firefighter safety, which will now require an increased number of new hires. Moreover, new threats to public security common to major cities around the nation make enhanced fire and emergency response management education a necessity.

A significant shortage is evident from the survey responses from fire chiefs of 10 fire departments in Northeast Florida. The survey results indicated that almost 25% of their 1,928 fire professional positions are management or management track, which should be at the bachelor's degree level according to the U.S. Fire Administration/National Fire Academy

recommendations. Additionally, the JFRD Training Chief stated that most of those bachelor's degrees are in hospital or emergency technician areas. Fire professionals seeking to advance their career are well aware that a bachelor's degree in fire science will increase their possibilities for promotion. Of responses to a student interest survey, 73.9% (354) indicated that the primary motivation for pursuing a bachelor's degree in fire science was that they were employed in the fire science field and wanted to move up in their career.



Diagram 1: National Professional Development Model for Firefighters developed by the U.S. Fire Administration/National Fire Academy under FEMA in 2002

The 2005-2006 Regional Targeted Occupations List for Region 8 identified Firefighters and First Line Supervisors of Firefighting and Prevention Workers as targeted occupations for the region. These occupations have met the regional criteria for wages and job openings.

A well-educated and professionally trained force equipped to provide an enhanced level of safety is a critical concern in Northeast Florida including the City of Jacksonville, which ranks as the 14th largest city in the United States in population and is the largest city in the contiguous United States in land area. Letters of support from fire chiefs, city council members and others responsible for hiring fire service professionals in Northeast Florida further confirm the need for the fire science baccalaureate degree to equip fire managers and leaders. (Please see letters of support in Appendix D.)

**Will the proposed program contribute significantly to meeting workforce needs in the service region?**

**Yes.** The program will meet the workforce needs in the service region and will be of value to Florida. In addition to the identified shortage of baccalaureate-prepared professionals in the field, changing technology and new post 9/11 challenges require more advanced skills.

New safety mandates and the firefighting services required in a post 9-11 environment for “at- risk” facilities such as airport, seaport and rail facilities have increased in complexity and sophistication, requiring firefighters to possess increased leadership and advanced practice skills. Today, a fire or emergency professional who does not continue his/her education is not equipped to provide leadership to a complex organization.

These more complex fire services and skills now required have created a new imperative for firefighters. Changes in the complexities of the firefighting profession necessitate education beyond the traditional fire service areas to include knowledge in new areas such as hazardous materials and chemical preparedness, first responder counter-terrorism training, and urban search and rescue management.

Florida Community College is dedicated to responding to such urgent needs in the communities it serves to meet the workforce needs. Developed in collaboration with and upon the advice of its Fire Science Advisory Committee, Florida Community College’s fire science program uniquely qualifies Florida Community College to provide the Bachelor of Applied Science in Fire Science. The ability to offer the specialized training needed is dependent upon very specific and expensive facilities. The existing Fire Training Academy at the College—the only one of its type in Florida—provides the necessary specialized facilities and equipment to deliver excellent advanced training in this field. With these facilities—and the related technical equipment—in place, there is significant untapped capability and capacity.

Recognizing the highly successful fire science program built upon a model of collaboration between industry and education, the fire chiefs in the region have requested that Florida Community College provide a Bachelor of Applied Science in Fire Science. With extensive and successful experience in serving fire science professionals, the unique facilities, which cannot be duplicated at a reasonable cost, and the extensive partnerships with the agencies and professionals charged with protecting the public, the College can meet this need efficiently, effectively, and at a level of quality that can serve as a national model.

In spring 2005 a survey was used to obtain direct feedback from fire service employers concerning the need for a four-year degree in fire science and desired program characteristics. Participants included:

<b>Fire Department</b>	<b>Participant</b>
Macclenny City Fire Dept.	Daniel J. Dugger, Fire Chief
Clay County Fire Rescue	Richard Knoff, Battalion Fire Chief
Jacksonville Fire & Rescue Dept.	Richard A. Barrett, Dir./Fire Chief
Jacksonville Beach Fire Dept.	Gary A. Frazier, Fire Chief
Nassau County Fire Dept.	Charles W. Cooper, Fire

<b>Fire Department</b>	<b>Participant</b>
Naval Station Mayport	William E. Dietz, Fire Chief
Fernandina Beach Fire Dept.	Daniel B. Leeper, Fire Chief
NAS Fire Dept.	Randy W. Hall, Fire Chief
Orange Park Fire Dept.	Harvey T. Silcox, Fire Chief
St. Johns County Fire Dept.	Carl A. Shank, Deputy Fire Chief

Data collected through the survey of the region’s fire service employers, conducted by an independent consultant, reflected the following fire department goals:

- Developing future leadership at the bachelor’s level to create qualified personnel for management positions;
- Maintaining compliance with National Fire Association education recommendations;
- Fulfilling a need for formal education to meet existing management complexities;
- Having an accessible and affordable program that follows the National Fire Academy Model.

The employer representatives identified the following additional factors as supporting the need for a bachelor’s degree in fire science:

- 60% of the fire departments have difficulty identifying qualified personnel for promotional opportunities;
- 100% would encourage their employees to pursue a Bachelor of Applied Science degree in Fire Science;
- 100% would be likely to hire graduates with a Bachelor of Applied Science degree in Fire Science.

Moreover, survey results show strong agreement that a firefighting professional with a Bachelor of Applied Science degree in Fire Science would have:

<p>Improved fire department managerial and leadership skills</p> <p>-Strongly Agree 70%</p> <p>-Agree 30%</p> <p>Increased ability to meet the new challenges of modern fire emergency response</p> <p>-Strongly Agree 70%</p> <p>-Agree 30%</p> <p>Improved knowledge of future trends in the fire science field</p> <p>-Strongly Agree 70%</p> <p>-Agree 20%</p> <p>-Neutral 10%</p>	<p>Increased incident management training</p> <p>-Strongly Agree 60%</p> <p>-Agree 40%</p> <p>Increased ability to deal with fire science ethical dilemmas and issues</p> <p>-Strongly Agree 70%</p> <p>-Agree 30%</p> <p>Increased ability as a first responder fire professional to a terrorist attack involving weapons of mass destruction</p> <p>-Strongly Agree 50%</p> <p>-Agree 30%</p> <p>-Neutral 20%</p>
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Florida’s extremely low ranking in production of baccalaureate degrees is reflected in the fire science workforce needs. The fire science bachelor’s degree is what the fire departments prefer for advancement, but they cannot require a fire science bachelor’s degree until the degree is available. There is no fire science bachelor’s program or planned program which meets the stated needs of the fire service employers. The fire science baccalaureate program would address these workforce needs and enable an upgrading of skill requirements to meet these new needs.

Demand outpaces the supply of fire service professionals and supervisors. The Fire Chief survey indicates that 90% of the Fire Chiefs surveyed prefer a candidate with a bachelor's degree. When fire departments cannot fill these supervisory gaps, they are forced to promote individuals without a bachelor's degree, or use other coping strategies that are detrimental to their business processes and their ability to provide fire and emergency services for the safety of our region's citizens.

The College's proposed program will meet these workforce demands by:

- Basing the degree on the National Fire Academy Model curriculum;
- Designing the degree as a Bachelor of Applied Science to provide management expertise and hands-on advanced practice education early in the course structure with subsequent reinforcement later in the curriculum;
- Expanding geographic access to the degree for a profession with varying work schedules and shift requirements through the use of advanced academic technology;
- Expanding financial access to the degree through optimally affordable community college tuition and fees;
- Providing for effective and efficient A.S. degree articulation to the B.A.S. degree;
- Providing a career ladder for advancement through the profession by articulating the Postsecondary Adult Vocational Fire Minimum Standards Training credential with the A.S. degree in Fire Science Technology;
- Providing a faculty of certified firefighters and leaders with appropriate degrees;
- Distributing general education courses throughout the four years of the program, rather than being concentrated in the first two years, thereby enabling students to enter the job market earlier, gain experience and apply their education as they continue it.

This program will offer fire service professionals the opportunity to advance in their careers through increased leadership skills and meet growing industry needs for fire managers and leaders with advanced practice skills in emerging firefighting, rescue and emergency response management tactics.

**Is the need driven by proven student demand? Estimate initial and projected program enrollments.**

**Yes.** The JFRD Training Chief conservatively estimates greater than 15% of the firefighter force (135+ officers) will enroll in the Fire Science (B.A.S.) degree program at Florida Community College. However, 457 (79.3%) of current FCCJ fire technology students and currently employed firefighters surveyed expressed interest in pursuing a baccalaureate degree if one were offered in Jacksonville. The majority of those surveyed are currently employed firefighters who represent a large pool of applicants to the program with sufficient work experience to place them in line for advancement into positions where a bachelor's degree is needed according to the National Fire Academy. Additional prospective students will be drawn from the surrounding municipalities and the region, and from the United States Navy, with whom Florida Community College has strong partnerships for education and training in the targeted field.

These employed firefighters represent a large pool of potential baccalaureate degree students who are non-traditional undergraduates well-served by the community colleges. They are currently engaged in their career, typically seeking a first degree and will be attracted to a part-

time schedule, cost-effective tuition, a curriculum that follows the National Fire Academy Model, and articulated credit for A.S. degrees. A total of 576 potential students responded to a survey regarding proposal of a Bachelor of Applied Science degree in Fire Science with key results as follows:

- 457 (79.3% of those responding to this question) said they would be interested in pursuing a bachelor's degree in fire science if one were available in Jacksonville;
- 354 (73.9% of those responding to this question ) said they would pursue a bachelor's in fire science primarily to advance in their career;
- 392 (79.2% of those responding to this question ) said they would probably take classes part-time versus 50 (10%) who said they would probably take classes full-time;
- 413 (83.4% of those responding to this question) said that it was very important or somewhat important that the program be based on the National Fire Academy Model.

The majority of students surveyed indicated that hands-on instructional experiences, an applied curriculum, and opportunities for work-based learning were very important in the design of the new program.

With the lower-division component of the proposed B.A.S. built on the College's highly successful A.S. program, students who have completed an A.S. degree will, in most cases, be able to apply their technical coursework toward the B.A.S., saving considerable time and money that would be required for an A.A. degree to transfer. The proposed degree program is designed to meet these student needs and will significantly increase access for all of these student populations, who, in most cases, would not otherwise be able to participate in baccalaureate-level education in their field.

### ***Enrollment Projections***

The following table displays enrollment and full-time equivalent (FTE) projections for the upper-division portion of the program for the first four years. Based on the survey responses of 576 firefighters in Region 8, it was assumed that approximately 11% of the students will attend the program full-time, taking a total of 30 semester hours each year, while the other 79% will attend part-time, taking a total of 15 semester hours per year. These estimates assume an annual 65% retention rate for full-time students and a 55% retention rate for part-time students. Since most students will not attend the program full-time, we can expect completion numbers to be low for the first several years, but increase significantly after year five. In the long term, 20 to 35 graduates per year will address a significant percentage of the workforce demand described earlier.

	2005-2006	2006-2007	2007-2008	2008-2009
<b>Headcount</b>				
Full-time	4	10	14	20
Part-time (15 hrs/yr)	31	73	106	147
Total	35	83	120	167
<b>Credit Hours</b>	585	1,395	2,010	2,805
<b>FTE</b>	20	46	67	94
<b>Completers</b>	0	4	11	20

Table 1. Projected upper-division enrollments, credit hours generated, FTE, and completers, 2007-2009

**Has demand for graduates of the proposed program been expressed by local business or documented in any studies or needs analyses? Is there documentation of availability of jobs for graduates?**

**Yes.** Both the 2005-2006 Florida Statewide Targeted Occupations List (TOL) and the 2005-2006 Regional Targeted Occupations List for Region 8 include Firefighters and First Line Supervisors of Firefighting and Prevention Workers as targeted occupations meeting regional and statewide criteria for wages and job openings based on state Labor Market Statistics. Additionally, WorkSource President and CEO Bruce Ferguson Jr. states in his letter of support for the bachelor's degree in fire science that *"WorkSource anticipates a significant demand for graduates of this program ... This degree is crucial to the enhancement of our region's public protection, as well as its high-skill workforce development efforts."*

**Employer Demand**

The spring 2005 Fire Chief Survey data collected from fire departments within Region 8 indicated a demand for developing future leadership at the bachelor's level to create qualified personnel for management positions and fulfilling a need for formal education with existing management complexities. (Please see survey results on page 7.) Survey participants overwhelmingly (100%) stated that they would encourage their employees to pursue a Bachelor of Applied Science degree in Fire Science and would be likely to hire graduates with a Bachelor of Applied Science degree in Fire Science.

Key survey results also indicated that almost 25% of the surveyed fire departments' 1,928 fire professional positions are management or management track, which should be at the bachelor's degree level according to the U.S. Fire Administration/National Fire Academy recommendations for these mission-critical positions.

**Has employer demand exceeded supply for the past five years and projected to exceed for the next five years?**

**Yes.** The Firefighter and First Line Supervisors of Firefighting and Prevention Workers are on the 2005-2006 Florida Regional Targeted Occupations List, and the Fire Chief Survey indicates a minimum of 733 hires for the next five years of those surveyed. (Please see survey participants on page 6.) The survey further affirms that almost 25% of the current fire department positions are in management or in a management track, indicating that 25% (183) of the new hires over the next five years would be candidates for future management and potential bachelor's degree students as well.

The bachelor's requirement is what the departments want to require for advancement, but minimum requirements are dictated by the candidate pool, and they can only *prefer* a candidate with a bachelor's degree until the accessible, affordable degree based on the National Fire Academy Model they desire is available. This bachelor's program would enable an upgrading of skill requirements to meet new needs based on the current shortage of bachelor's degrees for the 457 fire service professionals in management or a management track of the fire departments surveyed, in addition to providing the critical training needed for the new hires.

**Is the need primarily related to programmatic content, the nature of the delivery system, or other factors?**

**Yes to all.** New kinds of degree programs, flexible course delivery and affordable tuition are needed to successfully meet the challenges of providing educational services to this non-traditional student population – the working adult with a varying work schedule in a career demanding a strong skill base. The College's leadership in academic technology will further enhance the delivery system through use of its successful, state-of-the-art academic technology, such as Smart classrooms, software, and computer labs.

Fire Science has long been a field in which real-world skills and experience outweigh formal credentials in the job market. Yet formal education and training remains the preferred model of gaining needed skills, particularly when these programs incorporate hands-on training with industry-standard equipment and work-based learning experiences, such as the proposed fire science degree. Community colleges have special expertise in providing such "practitioner-oriented" learning opportunities and tailoring their programs to meet industry needs. University degree programs, in contrast, typically emphasize theoretical knowledge at the expense of practical skills.

Although a two-year degree in fire science provides a good base, the skills needed to work in the evolving and more complex fire science arena in a post 9/11 environment are far beyond what can be accomplished in a two-year degree. Evidence of this is provided by the U.S. Federal Emergency Management Administration career advancement pyramid for firefighters and emergency management personnel (see page 5) which illustrates the requirement of a bachelor's degree or higher for promotion into management positions. Similarly, fire department workforce surveys have found that a four-year degree is increasingly desirable in fire science. Articulation between existing programs in two- and four-year institutions, however, is typically difficult in the fire science field because of the disconnect in instructional goals and approach. A new kind of applied, four-year degree program, offered entirely on the community/technical college model, will help address the changing needs of the fire science career field.

***Model Program***

The National Fire Academy has proposed a model curriculum for fire science education, and that model has been recommended by the College's Fire Science Advisory Committee to serve as the basis of the College's proposed degree. This professional program emphasizes applied, hands-on learning in the context of general fire science administration concepts and is focused on the needs of the workplace. Additionally, an "inverted" design allows students to take a majority of their technical courses in their first two years. This design prepares students for early entry into work, allowing them to gain critical real-world experience while finishing their last two years.

In addition to utilizing the National Fire Academy Model curriculum with an applied focus, the College will be providing course scheduling to accommodate varying work schedules and shift requirements.

## II. Potential Impact

### **What impact would this program have on the current mission of the institution?**

**A very positive impact.** FCCJ's primary mission and responsibility will continue to be responding to community needs for postsecondary academic education and career degree education as required by Florida Statute 1004.65(6). As seen in Appendix E, FCCJ's Board of Trustees has affirmed FCCJ's commitment to the community college mission by board resolution, expressing its position that a limited number of high-demand practitioner-oriented baccalaureate degree programs will elevate the College's responsiveness to community needs and thereby enhance the fulfillment of its mission as a community college. The proposed baccalaureate degree is consistent with FCCJ's goals. The degree enables the College to fulfill the College-wide goals of optimizing access to and participation in College programs and responding quickly and effectively to the human resource needs of employers.

### **What percent of the gap between supply of and demand for baccalaureate graduates will the proposed program address?**

FCCJ surveyed 10 of the fire departments in the five counties (Clay, Duval, Nassau, Putnam, St. Johns) surrounding the College. The survey results documented that there are a total of 457 managers and employees on a management track, and only 121 currently hold a bachelor's degree. The fire departments also indicated that, over the next five years, their departments will hire over 733 new employees and estimated that 25% of the new employees will have a need for a baccalaureate degree. Therefore, we estimate that the demand for individuals with a baccalaureate degree by area fire departments will be in excess of 519 individuals over the next five years with the majority of those individuals being required by the Jacksonville Fire and Rescue Department. The proposed degree will produce approximately 37 graduates over the next five years, which is approximately 7% of the projected demand.

### **Will the proposed program be of necessary quality associated with a baccalaureate in terms of:**

- **Faculty**

**Yes.** Faculty will be fully qualified to deliver baccalaureate-quality instruction in the field. The College will hire two full-time instructional personnel with appropriate credentials to teach the major courses in the Fire Science curriculum. One will be an instructional program manager, responsible for program oversight and development and for teaching two major courses per term. The other will be a full-time faculty member with primary responsibility for teaching major courses in Fire Science. If current full-time faculty are assigned to teach in the new program, new full-time faculty will be hired to fill their current teaching assignments. The instructional program manager will be hired in Fall, 2005 and it is anticipated a full time faculty member will be hired in July, 2006.

In a program such as this, it is instructionally beneficial to combine full-time faculty, who bring instructional expertise and consistency to the program, with adjuncts who are employed in

the field, who bring familiarity with current issues and technologies. Adjunct faculty will be drawn from the College's cadre of professional firefighters who hold the appropriate academic credentials, and who have taken the state-approved training for Fire Service Instructor, Level I, or the equivalent. The program will begin utilizing adjunct faculty in 2007-2008 when one adjunct faculty member will be needed to provide instruction in the program. By 2009-2010, it is anticipated that a total of 14 adjunct faculty will be utilized by the program.

Administrative oversight will be provided by Richard Nelson, dean of Workforce Development. Dean Nelson holds a master's degree and has significant experience in overseeing the College's Public Service programs including Fire Science. The full complement of faculty teaching in the new program will meet the Southern Association of Colleges and Schools' (SACS) requirements for faculty credentials in baccalaureate degree programs, including compliance with applicable instructor requirements for a Master's degree plus 18 graduate credits as required by SACS.

- **Facilities**

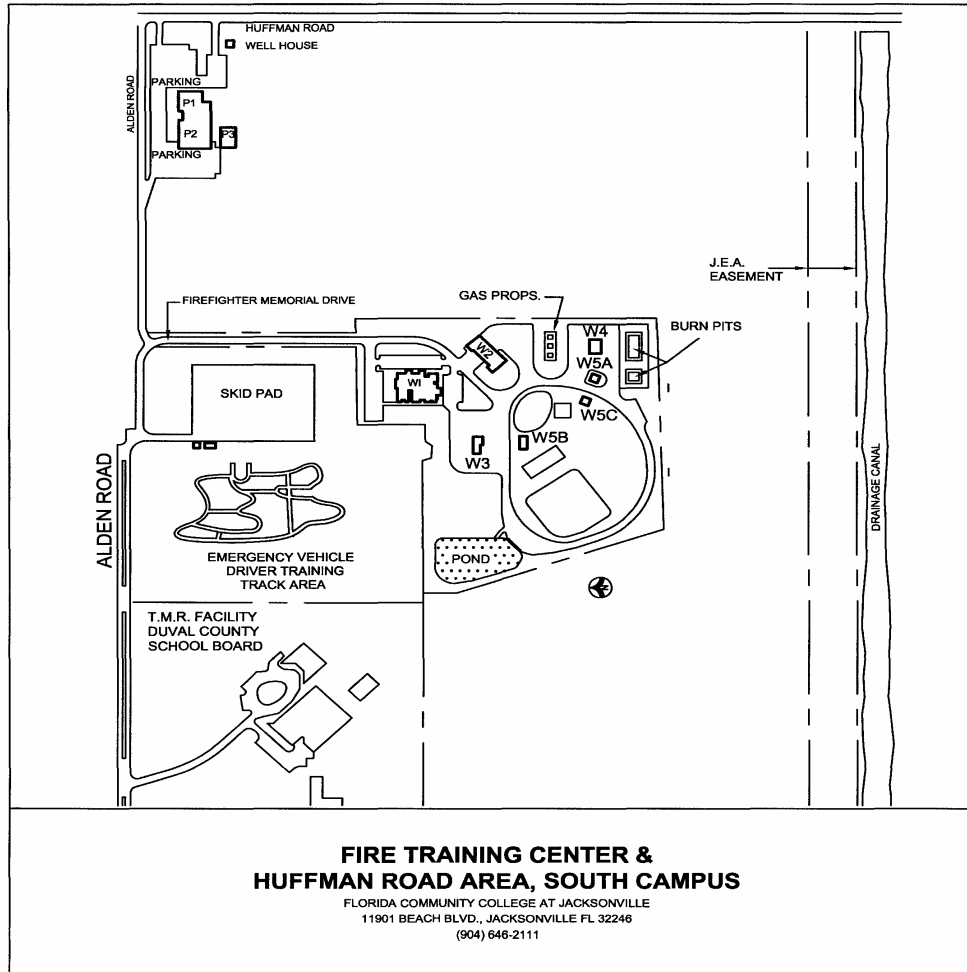
**Yes.** Beginning in 1990, Florida Community College and the City of Jacksonville agreed to collaborate on the construction and operation of a regional Fire/Rescue Training and Education Center at the College's South Campus. Both entities contributed construction funding and design expertise, and in 1992 the Center began operation on approximately 75 acres with highly specialized, state-of-the-art facilities which now include:

- 26,823 square feet of classroom buildings;
- A 9,000 sq. ft. large lecture auditorium and video production facility for creating training tapes;
- A 6,100 sq. ft. training tower for closed-space training, ladder work and rappelling;
- A gas-fired Burn Building;
- An open burn pit for liquid fires;
- An open area for training props such as a propane-fired rail car and vehicles for extrication training;
- A .5 mile driving track and a skid pad for emergency vehicle operation training;
- Enclosed space training props;
- Trench rescue areas;
- Urban search and rescue props;
- Lifescan Health Center;
- Firefighter fitness training facility.

Since the inception of the Center, the College and the City of Jacksonville have continued to enhance the unique capabilities of the facilities, making the FCCJ Fire/Rescue Training and Education Center the best-equipped facility of its kind in the state. The College has provided an additional \$1 million of funding for construction of a state-of-the-art, computer-controlled, propane-fired Burn Building, and more recently added outdoor space and props for Urban Search and Rescue training. The College also reallocated an additional 15,000 sq. ft. classroom and fitness training building for use by the Center, including a Lifescan Health Center for annual medical screening of firefighters. The College continues to provide annual funding for expansion, maintenance, equipment and operation of the Center, while Jacksonville Fire/Rescue Department (JFRD) provides major equipment such as fire trucks and other emergency response vehicles.

Originally developed in 1990 and expanded over time, the current replacement value of the facility is in excess of \$20 million. The investment costs associated with these facilities is shown on Appendix B. These specialized facilities, which cannot readily be duplicated, will provide unique opportunities for hands-on practice of advanced management and leadership skills in realistic environments.

### Facilities Diagram



#### FIRE TRAINING CENTER FACILITIES DIAGRAM LEGEND:

- W1 - Training Classrooms
- W2 - Large Lecture Auditorium and Video Production Center
- W3 - Training Tower
- W4 - Burn Building
- W5A - Storage for Equipment
- W5B - Firefighter Fitness Facility
- W5C - Storage for Equipment
- P1 - Classroom Building/Lifescan Health Center
- P2 - Gymnasium
- P3 - Office Space

- **Curriculum**

**Yes.** Upon the advice of the area Fire Chiefs, the curriculum was designed using the U.S. Fire Administration National Fire Academy Model for Fire-Related Curriculum for Associate and Baccalaureate degrees. This national model defines the standards of the field and ensures that the curriculum includes the competencies, skills and knowledge required of today's leaders and managers in fire service and emergency response services.

The curriculum also meets State of Florida requirements for General Education (36 credits), and for program lengths (60 credits for the Associate in Science and 120 credits for the Bachelor of Applied Science). An overview of the proposed degree is outlined below.

### **Associate in Science to Bachelor of Applied Science Degree Overview**

#### **Associate in Science Degree (Lower Division)**

General Education Courses	24 credits
Fire Science Courses	30 credits
Supplemental Courses	6 credits
<b>A.S. Degree Total</b>	<b>60 credits</b>

#### **Bachelor of Applied Science Degree (Upper Division)**

General Education Courses	12 credits
Fire Science Courses	41 credits
Supplemental Courses	7 credits
<b>B.A.S. Upper Division</b>	<b><u>60 credits</u></b>
<b>Total B.A.S. Degree Completion</b>	<b>120 credits</b>

In addition to meeting the State of Florida requirements for General Education and program lengths, all courses in the proposed degree are included in the State Common Course Numbering System. The proposed four-year degree layout is outlined below. New course descriptions can be found in Appendix G.

### **Four-Year Fire Science Degree Layout**

#### **First Year**

##### **Fall Term**

ENC-1101	English Composition	3 credits
MGF-1106	Mathematics for Liberal Arts I	3 credits
FFP-2120	Building Construction for Fire Service	3 credits
FFP-2111	Fire Chemistry	3 credits
FFP-1730	Fire Department Administration I	3 credits

**Total 15 credits**

##### **Spring Term**

STA-2023	Elementary Statistics	3 credits
LIT-2000	Introduction to Literature (Fiction)	
	Or	
ENC-1102	English Composition II (Non-Fiction)	3 credits
CGS-1570	Microcomputer Applications	3 credits
FFP-1505	Fire Prevention	3 credits
FFP-2702	Principles of Emergency Services	3 credits

**Total 15 credits**

## Second Year

### Fall Term

SPC-2016	<u>Speech Communications</u> For Business and the Professions	3 credits
PSY-1012	General Psychology	3 credits
FFP-2740	Fire Service Instructor Methods	3 credits
FFP-2670	Legal Issues in Fire Service	3 credits
FFP-2610	Fire Behavior and Combustion	3 credits

**Total 15 credits**

### Spring Term

HUM-2211	Humanities: The Foundations	3 credits
PHI-1603	Applied Ethics	3 credits
MAN-2582	Introduction to Project Management	3 credits
FFP-2301	Fire Service Hydraulics	3 credits
FFP-1540	Fire Protection Systems	3 credits

**Total 15 credits**

**Total A.S. Degree**

**60 credits**

## Third Year

### Fall Term

Science Education	Option A or B	3 credits
Social/Behavioral	Sciences Category A	3 credits
EFS-3015	Advanced Fire Administration	3 credits
ACG-2021	Financial Accounting	4 credits
EFS-3XXX	Fire-Related Human Behavior	3 credits

**Total 16 credits**

### Spring Term

Science General	Education Option A or B	3 credits
Social/Behavioral	Sciences Category B	3 credits
ACG-2071	Managerial Accounting	3 credits
EFS-3803	Disaster and Fire Defense Planning	3 credits
EFS-3XXX	Political & Legal Foundations of Fire Protection	3 credits

**Total 15 credits**

## Fourth Year

### Fall Term

EFS-4XXX	Fire Dynamics	3 credits
EFS-4XXX	Application of Fire Research	3 credits
EFS-3533	Community and the Fire Threat	3 credits
EFS-4585	Fire Prevention Organization and Management	3 credits
EFS-3780	Analytical Approaches to Public Fire Protection	3 credits

**Total 15 credits**

### Spring Term

EFS-4685	Incendiary Fire Analysis and Investigation	3 credits
EFS-4823	Managerial Issues in Hazardous Materials	3 credits
EFS-4XXX	Fire Protection Structures and System Design	3 credits
EFS-4045	Personnel Management for the Fire Service	3 credits
PREREQUISITE: EFS-3015	Advanced Fire Administration	
EFS-4XXX	Internship	2 credits
	<b>Total</b>	<b>14 credits</b>

**Total B.A.S. Degree**

**120 credits**

### ***Competencies***

Today's fire service professional needs both the technical requirements and leadership knowledge to handle the ever-increasing complexities of running a post 9-11 fire department. Graduates from our program will have the requisite knowledge-based competencies (education) and skills-based operational competencies (training) needed for today's fire service professional. Graduates of this program will be prepared to manage and lead their departments. Competencies that students will achieve include:

- Leadership methods in the development of comprehensive organizational public fire and life safety strategies in collaboration with other city, state and federal agencies;
- Management of collaborative fire and life-safety partnerships with the community;
- Advanced practice and leadership in the development of public policy recommendations that align with state and federal homeland security policies;
- Leadership strategies in the development of comprehensive disaster plans, including plans for civil disturbances;
- Advanced practice skills in evaluating and identifying alarm, detection and suppression features using applied fire service methods;
- Advanced practice skills in applying fire dynamics applications in the development of building codes and standards;
- Leadership in the development of new training criteria for public safety personnel

One of the hallmarks of successful technical programs is their integration of national, regional, and/or state-level industry skills standards, and their reliance on local employers to establish the specific program content. We have met with our Program Advisory Committee composed of local fire department personnel and, based on their recommendation, we have adopted the National Fire Academy Model curriculum for our program.

### ***Program Design***

The proposed degree plan illustrates how students can complete both a portion of their general education (24 credit hours) in their first two years, along with a solid foundation in fire science administration, with a total of 36 credit hours in a technical core and technical specialization electives. Students will receive an A.S. degree after completing the first 60 credit hours, which will enable an employed student to receive a pay incentive for obtaining a

fire-related associate's degree. Importantly, future development of the program has been designed to involve integrated critical incident training with law enforcement and emergency management professionals.

The requirement that students complete their general education courses in their first two years, delaying their participation in most technical courses until their junior year, is a common difficulty with traditional four-year programs. Not only does this design miss opportunities for students to gain work experience while they attend college (since they do not begin gaining marketable skills until halfway through their program), it often fails to engage students and motivate them to remain in and complete their program. Similarly, students often see general education courses as irrelevant and disconnected from the rest of their program. The general education courses selected for this program will provide a broad-based liberal arts foundation, but incorporate relevant concepts, such as organizational behavior, cultural diversity, and economics.

Building on the foundation of the A.S. degree, the completion of the B.A.S. degree includes the remaining 12 credits of general education, plus an 18-credit professional core, and 30 credits of technical electives, for a total of 48 upper-division credits. The professional core emphasizes business management skills that our program advisory committees strongly recommend for higher-level fire service professionals, such as project management, purchasing, personnel management, and organizational communication. The remainder of the program can be structured to meet the student's professional goals, and includes broad-based training in advanced fire service skills or specialization in a high-demand area. The entire curriculum at both the A.S. level and the B.A.S. level will incorporate and utilize the National Fire Academy educational model curriculum which is the national model upon which many state fire colleges, including the Florida Fire College, base their educational standards. This curriculum emphasizes applied, hands-on learning in the context of general fire science administration concepts and is focused on the needs of the workplace. Additionally, the curriculum design allows students to take technical courses in their first two years. This design prepares students for early entry into work, allowing them to gain critical real-world experience while finishing their last two years.

The general education component of the program includes existing FCCJ courses that meet Gordon Rule requirements. Students will also be required to complete all standard requirements for baccalaureate degrees in Florida.

By providing students with technical preparation throughout their bachelor's program, we will ensure they stay motivated, engaged, and on track toward their educational and career goals. Students from disadvantaged backgrounds will be particularly well-served by this program design. Increased retention and completion by students from diverse populations will help to increase the participation of underrepresented groups in the fire services workforce.

- **Articulation Pathways**

**AA Intended Transfer Major of Fire Science  
Two-Year Degree Layout**

**First Year**

**Fall Term**

ENC 1101	English Composition I	3 credits
MGF 1106	Math for Liberal Arts	3 credits
FFP-2120	Building Construction for Fire Services	3 credits
FFP-2111	Fire Chemistry	3 credits
FFP-1730	Fire Department Administration I	3 credits
		<b>Total 15 credits</b>

**Spring Term**

STA 2023	Elementary Statistics	3 credits
XXXX	Communications Category B*	3 credits
XXXX	Natural Science*	3 credits
HUM 2211	Humanities: The Foundations	3 credits
FFP-1540	Fire Protection Systems	3 credits
		<b>Total 15 credits</b>

**Second Year**

**Fall Term**

SPC-2016	Speech Communications for Business and the Professions	3 credits
PSY 1012	General Psychology	3 credits
XXXX	Natural Science*	3 credits
XXXX	Social and Behavioral Sciences (Category A)*	3 credits
FFP-2670	Legal Issues in Fire Service	3 credits
		<b>Total 15 credits</b>

**Spring Term**

PHI 1603	Applied Ethics	3 credits
XXXX	Humanities*	3 credits
XXXX	Social and Behavioral Sciences (Category B)*	3 credits
FFP-2740	Fire Service Instructor Methods	3 credits
FFP-2610	Fire Behavior and Combustion	3 credits
		<b>Total 15 credits</b>

**Total AA Degree**

**60 credits**

\* Select from AA General Education Requirements

Notes:

The FFP courses and PHI 1603 are AS/AAS courses. They are currently not AA Electives at FCCJ, so the AA student would not be able to graduate with an AA until they took 24 hours of AA Electives, or the FFP and PHI 1603 courses are approved as AA Electives.

Students who enter from other institutions will first have to meet our college entrance requirements. (see pages 2-7 of our current catalog) A review process will be established to evaluate transfer students who bring fire science courses from another institution in addition a portfolio review process will be designed to review and award college credit based on a students fire service employment. Students who bring unrelated Bachelor's degree to the program will be reviewed to ensure that they have required General Education courses that match the current BAS degree.

- **Prerequisites**

The College will follow all applicable requirements. Currently, no common prerequisites are identified for Fire Science programs in the Common Prerequisite Manual.

- **Standards of the Field**

There are three standards in the fire service profession. The three standards for fire rescue training are the National Fire Prevention Association Standards, the National Fire Academy Standards, and State Standards.

### **The National Fire Prevention Association**

Established in 1896, the National Fire Prevention Association (NFPA) serves as the world's leading advocate of fire prevention and is an authoritative source on public safety. NFPA's 300 codes and standards influence every building, process, service, design, and installation in the United States, as well as many of those used in other countries. NFPA's focus on true consensus has helped the association's code-development process earn accreditation from the American National Standards Institute (ANSI). NFPA has developed standards for fire officers training and educational requirements from Fire Officer 1 through Fire Officer 4. Fire Officer Level 2 recommends an associate's degree while Level 3 and above recommends a bachelor's degree or higher. In 2004 the International Association of Fire Chiefs released the Officer Development Handbook, a professional development guide that will help all fire officers at all levels plan a systematic development plan for their professional fire service career. Each section includes a crosswalk to the corresponding NFPA 1021 Standard for Fire Officer Professional Development. The Officer Development Handbook may be viewed on the professional development page of the International Association of Fire Chiefs website at the following web page address:

<http://www.iafc.org/publications/documents.asp#professional>

### **National Fire Academy**

Second is the National Fire Academy. As a result of the landmark document, *America Burning: The Report of the National Commission on Fire Prevention and Control*, Public Law 93-498, the Federal Fire Prevention and Control Act of 1974, was signed into law on October 29, 1974. With the passage of PL93-498, the U.S. Fire Administration and its delivery arm, the National Fire Academy (NFA), were created.

In 1999 the NFA held its first Fire Emergency Service Higher Education Conference (FESHE) and has developed recommended curricula for both the associate's and bachelor's degree that the College is incorporating into its Fire Science curriculum.

The 2000 FESHE conference focused on the development of a model fire science associates curriculum. In 2001, the National Fire Science Curriculum Committee (NFSCC) was formed to develop standard titles, descriptions, outcomes, and outlines for each of the six core courses developed and the model courses and outlines were approved in 2002. The model fire science associates level courses are:

#### Associates Core Curriculum

- Building Construction for Fire Protection
- Fire Behavior and Combustion
- Fire Prevention
- Fire Protection Hydraulics and Water Supply
- Fire Protection Systems
- Principles of Emergency Services

#### Non-Core Curriculum

- Fire Administration I
- Occupational Health and Safety
- Legal Aspects of the Emergency Services
- Hazardous Materials Chemistry
- Strategy and Tactics
- Fire Investigation I
- Fire Investigation II

As a result, fire science associate degree programs are encouraged to require these courses as the "theoretical core" on which their degree is based. The model courses addressed the need for uniformity of curriculum, student transfer issues between schools and promoted crosswalks for students who apply their academic coursework toward satisfaction of the national qualification standards necessary for firefighter certifications and degrees.

The NFA has also released its 13-course upper-level curriculum for the bachelor's level. The courses are:

#### Bachelors Core Curriculum

- Advanced Fire Administration
- Analytical Approaches to Public Fire Protection
- Applications of Fire Research
- Community and the Fire Threat
- Disaster and Fire Defense Planning
- Fire Dynamics
- Fire Prevention Organization and Management
- Fire Protection Structures and Systems Design
- Fire-Related Human Behavior
- Incendiary Fire Analysis and Investigation

- Managerial Issues in Hazardous Materials
- Personnel Management for the Fire Service
- Political and Legal Foundations of Fire Protection

### **State of Florida Standards for Fire-Rescue Training**

Last is the Florida State Fire College, which offers basic, intermediate, and advanced training and educational courses, develops educational curricula to be used by other fire-rescue training agencies and conducts research into new methods and technologies related to fire-rescue activities. The Fire College establishes the standards for being a certified firefighter in the State of Florida. Following the advocacy of the Fire College, laws were enacted to provide educational incentive pay for firefighters who achieved an associate's degree or bachelor's degree, provided the degree was fire-related. The Florida State Fire College minimum curriculum requirements for training firefighters are contained in 69A-37.055 of the Florida Administrative Code attached as Appendix H.

#### **Are assurances provided that the College will not terminate any Associate in Arts or Associate in Science degree as a result of this program addition?**

**Yes, these assurances are made not to terminate any Associate in Arts or Associate in Science degree.** The College will continue to offer the Associate in Arts, Associate in Applied Science degree and the Associate in Science degree. The A.S. degree has been enhanced to meet the recommendations of the National Fire Academy Model curriculum referenced above, and to provide seamless articulation to the Bachelor of Applied Science degree. This continuum of credentials will provide articulated, career ladder educational offerings to professionals in the field. Moreover, the College will continue to offer its Postsecondary Adult Vocational Certificate in Firefighter Minimum Standards, preparing students for entry-level employment as firefighters.

In the event that the BAS degree is terminated, the college will follow the procedures found in FCCJ's Program Development Handbook. The specific procedures can be found in Appendix F.

#### **Will the program increase access or redistribute the current pool of applicants?**

**Increase access.** The program will provide access to a credential needed for advancement in the field and for enhanced public safety, a credential not currently available in the College's service area. The seamless articulation from the Associate in Science to the Bachelor of Applied Science degree will provide an efficient pathway to the advanced skills, competencies and knowledge required for advancement and for enhanced public safety, providing a benefit both to the professionals in the field and to the public they serve.

#### **Will the program have an adverse impact on existing public and independent providers?**

**No.** No other similar programs are offered by the College's local state university or area private colleges, so the proposed program will not interfere or compete with existing programs offered. Neither the University of North Florida nor Jacksonville University offers such a program or has interest in offering such a program. The University of North Florida

focuses on law enforcement with a criminal justice degree which serves an entirely different population and fulfills different needs than the proposed program. Both the University of North Florida and Jacksonville University enthusiastically support the development of this degree as indicated in their letters of support contained in Appendix D.

### III. Use of Resources

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**Is there a cooperative program with a four-year institution currently in place?**

**No.** In 1998 the University of North Florida (UNF) in Jacksonville discontinued a program in its College of Engineering, Department of Building Construction Management, which offered a degree in Fire Science. UNF has provided a letter of support for Florida Community College's proposed Bachelor of Applied Science degree in Fire Science.

**Has a cooperative program been proposed by the community college or by another institution?**

Florida Community College administrators met with a representative of the University of Florida (UF). The UF fire administration education program does not meet the needs of employers and students in the College's service area, according to the data collected through a survey of the region's fire service employers (Please see survey results on page 7) and student interest survey results (Please see survey results on page 9). Communication with L. Charles Smeby of the UF Fire and Emergency Services Distance Learning Program indicated that UF will accept no more than 24 credits of A.S. degree coursework, and then only in specified courses, some of which are not part of the College's A.S. degree program. Mr. Smeby also indicated that UF was not willing to enter into an articulation agreement with the College to enhance A.S. articulation. Finally, the UF program is exclusively a distance learning offering, and local professionals in the field have expressed a preference for (a) more classroom-based instruction, and (b) a more hands-on, applied educational experience using the kinds of unique and specialized facilities Florida Community College has in place.

**Does the proposed program duplicate existing programs offered by other institutions with excess capacity within commuting distance or through distance learning?**

**No, there is no duplication.** As stated in a white paper for the Florida Board of Education, *Access to Baccalaureate Degree Instruction in Florida: Options and Opportunities*, "The question is not whether the baccalaureate degree instruction is available somewhere else, but rather is it available to those persons who need it in a specific workforce area within a specific community." There is no similar program within commuting distance, and the proposed program would provide much-needed access for students in our region. Additionally, the program would be the only program in the State of Florida to use an applied focus, follow the National Fire Academy Model, and provide an A.S. to B.A.S. articulation. Upon the recommendation of the College's Fire Science Advisory Committee and the area fire professionals, the College's proposed program is based on the National Fire Academy Model curriculum, thereby setting the proposed degree apart from the UF program. Moreover, as noted on page 9, the distance learning option is not favored by students in the field, nor is transfer after the A.S. degree efficient for the student in terms of either time to degree or money. The cost of the UF program exceeds the cost of the College's proposed program both on a course-by-course basis and for the program as a whole, given the 24 credit limit on transferable courses.

**What additional faculty positions will be needed to offer the baccalaureate program? If existing faculty are assigned to teach in the new program, how will their current teaching assignment be covered?**

Two new instructional personnel will be required. One will be a teaching leader with the title Instructional Program Manager, responsible for program oversight and development, and teaching duties in the major courses. The other will be a full-time faculty member with primary responsibility for teaching the major courses. Adjunct faculty with appropriate credentials and training as Fire Science Instructor Level I will be recruited from the existing pool of area professionals as needed.

Students in the new program will be absorbed into existing general education offerings at the lower division without any adverse impact on capacity or staffing requirements.

**Are there issues related to access/articulation that, if resolved, would preclude the need for the proposed program?**

**No.** The College has reviewed access and articulation issues and there are no outstanding issues which need to be resolved. Area fire professionals have expressed a preference for the applied science approach to the baccalaureate, using the facilities at Florida Community College for hands-on application of the principles and theories covered in the classroom. They have also expressed their preference for classroom-based instruction and support over distance learning. Finally, the lower cost of the proposed program is an important incentive.

## IV. Implementation

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**Does the proposal adequately address the steps necessary to achieve the necessary accreditation? Are resources currently available to pursue and complete the accreditation process?**

**Yes.** All resources and personnel are in place to initiate and successfully complete the accreditation process. Senior Officials of Florida Community College met with representatives of the Southern Association of Colleges and Schools (SACS) on April 18, 2005 and are working continuously with SACS to ensure complete compliance. The College has extensive experience in the accreditation process, having recently successfully completed the reaffirmation process that resulted in the College's accreditation being reaffirmed by SACS through 2014.

### Regional Accreditation Approval Process

Florida Community College at Jacksonville (FCCJ) is currently engaged in the sequential process of seeking the approval from the Commission on College (COC), Southern Association of Colleges and Schools (SACS). In May 2005, the College's SACS liaison was informed that FCCJ would seek approval to offer a program at a more advanced level and the College president and a team also visited with the Executive Director of SACS to discuss the College's reluctance to change the College's name.

The ***"Application for Member Institutions Seeking Accreditation at a More Advanced Level"*** is currently being prepared by teams of College administrators, faculty and support resource personnel. The application requires the completion of a two part process with requisite documentation. Part A – Description of the Proposed Programs/Courses at a More Advanced Level and Part – Description of Ongoing Compliance with the Principles.

The Compliance and Review Committee of COC meets bi-annually and FCCJ has committed to submit the Application by the September 22, 2005 for the December 2005 Compliance and Review Committee meeting. Concomitantly with the COC process, the College is seeking final approval to offer the BAS in Fire Science from the Florida Board of Education. It is anticipated that the approval will be granted the second week in September and approval documentation will accompany the COC application.

Pending approval at the December 2005 SACS meeting, FCCJ will be the recruitment of faculty and students in order to commence the program in fall 2006.

**Is the planned process for inclusion of the proposed program's enrollment into the College's registration, information, and cost accounting systems delineated?**

**Yes.** Florida Community College plans to use existing registration, information, and cost accounting systems for the inclusion of the proposed program enrollments. Florida

Community College is an institution that possesses the infrastructure, facilities, industry connections, faculty expertise, and student support services required to ensure the success of this program. FCCJ currently offers A.S. and A.A.S. fire technology programs in direct response to changing employer needs and to take advantage of new educational opportunities. The following describes the plan for development and implementation of the proposed baccalaureate program, and the resources the institution has available to support the new program.

### ***Implementation Plan***

The new program will be developed and required approvals will be obtained during the 2005-2006 academic year, with implementation of upper level courses to begin in fall 2006. Since the lower-division portion of the program incorporates existing courses in the College's current A.S. degree programs, the lower-division can be offered starting in fall 2005. In addition to our current A.S. students, we will be able to offer upper-level courses to those firefighters who already have a bachelor's degree in other disciplines as identified on page 4. Appendix A provides a development timeline for the proposed degree program.

***Program development and oversight.*** In Fall 2006, a new administrator at the instructional program manager level will coordinate development and implementation of the program. This individual will oversee the preparation of the SACS application for accreditation of the new program, faculty hiring and certification, curriculum development, student recruitment, and reporting and accountability. This individual will possess a terminal degree.

***Accreditation:*** Following approval by the Florida Board of Education, FCCJ will prepare an application to the Southern Association of Colleges and Schools to request accreditation to offer the proposed baccalaureate degree. A consultant will be retained to develop the proposal, assisted by the College's Office of Institutional Accountability.

***Curriculum development:*** New changes to the curriculum will be made based on the National Fire Academy Model curriculum. The Program Manager or faculty will represent the college at the annual meeting of the Fire Emergence Higher Education Conference held at the National Fire Academy where changes to the curriculum are discussed and made. All changes will be reviewed by the Fire Advisory committee and faculty. The curriculum changes will be reviewed and approved by the College Curriculum Committee and the District Board of Trustees.

***Faculty:*** FCCJ's programs are led by a faculty with the requisite academic credentials and industry experience. Faculty from the fire technology department will be utilized to teach in the new program. The College has an extensive pool of adjunct faculty who are certified in an array of specialized fire service technologies and, as working professionals, bring real-world issues and practices into the classroom. All faculty who teach in the program will meet the credentialing requirements of SACS.

## V. Accountability

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**Is the program 120 hours in length or will it require FBOE approval for additional hours?**

**Yes.** The program is 120 hours in length.

**Does the program comply with common prerequisites and other applicable requirements of state articulation agreements?**

**Yes.** The College will follow all applicable requirements. Currently, no common prerequisites are identified for Fire Science programs in the Common Prerequisite Manual.

**Will the program be limited access?**

**No.** The program is not designed to be nor will it be limited-access. Students can also take advantage of a wide variety of support services, such as:

- College success and life skills courses tailored to the needs of students in technical programs;
- Career planning and placement assistance;
- Financial aid and scholarship programs;
- Services for students with disabilities;
- College preparatory instruction;
- Tutoring assistance;
- Early intervention for students not progressing satisfactorily (either due to grades or withdrawals).

**What are the proposed admission requirements?**

### ***Admission Requirements***

Admission to the Associate in Science degree program will be the same as for other college-credit programs at Florida Community College. Students successfully completing the A.S. degree will be admitted to the baccalaureate program. Transfer students applying to the upper division will be evaluated individually for comparable preparation.

**Does the College provide for the collection of enrollments, completions, and other performance data, including outcomes assessment measures that will be used to assess program quality and competencies attained by graduates?**

**Reporting and accountability:** The College's Office of Institutional Research is responsible for federal and state reporting, including enrollment projections and monitoring and reporting of data needed for workforce development funding. The Office of Institutional Accountability is responsible for program accountability and outcomes assessment and maintenance of the College's accreditation status. These offices will assist with the collection of enrollment, completion, placement, and other performance data for the purpose of state and accreditation agency reporting for the bachelor's degree program. Additionally, assessments linked to the National Fire Academy education standards will be used to assess graduates' achievement of the desired competencies.

**Student records:** All enrollment, academic, financial aid, and other related student data will be maintained in the College's current student information system, and appropriate reporting requirements will be followed. All financial data will also be maintained in our existing financial system. No significant changes are required for these systems to handle data and records for the bachelor's degree program.

**Student support services:** The College provides an extensive array of student support services, including academic advising, career counseling, job placement, assessment and certification, financial assistance, child care, and other services that are critical to our students' success. Special assistance is available for students with disabilities or special needs. This range of services, along with the supportive environment of the community college, allows us to help our highly diverse student body overcome the barriers they face and achieve their goals, something they might not be able to accomplish as easily at a large university.

## VI. Cost Effectiveness

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**Is the incremental cost (including capital outlay) to the State less than other available options?**

**Yes.** The cost of the proposed program is less than other available options in the state.

### ***Program Start-up and Operational Costs – Overview***

Program development and start-up costs in 2005-2006 include administrative and support staff salaries, consulting services, marketing, program supplies, and equipment. It is estimated that program start-up costs in 2005-2006 will total \$247,650. No funding from state baccalaureate degree grants will be requested for program development and start-up per state law.

The College will incur operational expenses for the program's upper-division courses beginning in fall 2006. Operational costs will include administrative, faculty, and support staff salaries, ongoing marketing and faculty professional development activities, and instructional materials, supplies, and equipment upgrades. Operational costs for the upper-division courses are estimated to total \$181,595 in 2006-2007 and will increase, as enrollments in the program increase, to \$222,169 in 2009-2010.

In 2006-2007, the total cost per FTE for upper-division instruction is estimated at \$7,790, assuming an upper-division enrollment of 35 students producing 20 FTE. As enrollment grows, the cost per FTE declines 73% to \$2,108 in 2009-2010 when upper-division enrollment reaches an anticipated 167 students producing 94 FTE. The cost per FTE should remain at approximately this level in subsequent years.

The table below provides a summary of the program's start-up and operational costs for the upper-division courses. A complete budget rationale can be found on the following pages. Additional detail on the costs associated with the program start-up and operational costs can be found in Appendix C.

	2005 – 2006	2006 – 2007	2007 – 2008	2008 – 2009	2009 - 2010
Start-up Costs for B.A.S. Program	\$247,650				
Operational Costs for Upper-Division Courses		\$181,595	\$182,723	\$205,043	\$222,169
Students Served in Upper-Division Courses		35	83	120	167
FTE Produced by Upper-Division Courses		20	47	67	94
Cost Per FTE for Upper-Division Courses		\$7,970	\$3,522	\$2,699	\$2,108

**Salaries and benefits:** An Instructional Program Manager (IPM) and clerical support will be hired starting in 2005-2006 to oversee the development and implementation of the program. Total salary and benefits for these personnel is \$111,300. In 2006-2007, the first year that upper-division courses are offered, one full-time faculty member will be hired for the program. This addition of a new full-time faculty member will increase the program's personnel costs to \$159,392.

As the student demand for the upper-division courses increases, additional part-time faculty will be needed to teach the upper-division courses. Beginning in 2007-2008, one adjunct faculty will be hired to meet the growing student demand for courses in the program, increasing the personnel costs for the program to \$165,534. By 2009-2010, a total of 14 adjunct faculty will be needed by the program. Total salaries and benefits in 2009-2010 are estimated at \$198,108.

The table below provides a summary of the program's projected staffing plan. More detail on the costs associated with the staffing plan can be found in Appendix C.

	2005 – 2006	2006 – 2007	2007 – 2008	2008 – 2009	2009 - 2010
Instructional Program Manager (FT)	1	1	1	1	1
Clerical Support (FT)	1	1	1	1	1
Faculty (FT)		1	1	1	1
Faculty (PT)			1	7	14
Total Salary & Benefits	\$111,300	\$159,392	\$165,534	\$180,828	\$198,108

**Professional development:** In 2005-2006 a total of \$700 is included for staff development and travel for the Instructional Program Manager (IPM). Beginning in 2006-2007 and in each subsequent year, \$1,900 is budgeted for professional development and travel for both the IPM and full-time faculty member. Additional professional development opportunities not represented in this budget include workshops and mentoring programs in distance learning, teaching with technology, and the use of innovative pedagogies provided through the College's Center for the Advancement of Teaching and Learning, Southeast Center for Cooperative Learning, and Applied Center for Instructional Development.

**Consulting services:** In 2005-2006 a total of \$70,000 has been budgeted for consulting services. Consultants will be utilized to develop curriculum and assist with the preparation of the College's application to SACS for approval to award a baccalaureate degree. The College does not foresee incurring additional consulting services expense in subsequent years.

**Marketing and communications:** In 2005-2006 a total of \$15,000 has been budgeted for the initial marketing of the degree program. In subsequent years, \$9,000 is included for marketing and recruitment activities, including the development of brochures, a program Web site, and other communications about the new program.

**Materials and supplies:** In 2005-2006 a total of \$5,670 has been budgeted for the purchase of materials and supplies that will be needed for the program start-up. In 2006-2007, a total of \$3,803 has been budgeted for instructional supplies needed by the upper-division courses. By 2009-2010, with the increase in the number of students being served by

the program, \$8,861 will be needed for instructional supplies and materials for the upper-division courses.

The following table provides a summary of the anticipated materials and supplies costs associated with the program.

	2005 – 2006	2006 – 2007	2007 - 2008	2008 – 2009	2009 - 2010
Materials & Supplies – start-up	\$5,650				
Materials & Supplies – Upper-Division Courses		\$3,803	\$4,289	\$6,315	\$8,861

**Library resources:** In 2005-2006 a total of \$20,000 has been budgeted for the acquisition of library resources (books, subscriptions, videos, etc.) to support the new program. In 2006-2007, \$5,000 has been planned for additional acquisition of library resources and the continuation of subscriptions. Beginning in 2007-2008 and in each subsequent year, \$2,000 has been budgeted for the continuation of subscriptions in support of the upper-division courses in the program. Ongoing acquisitions of library materials will be included in the College’s overall library budget through normal budgeting processes.

**Equipment:** In 2005-2006 a total of \$25,000 has been budgeted for the purchase of minor equipment for the upper-division courses and to purchase office equipment for the Instructional Program Manager (IPM) and program support staff. In 2006-2007 a total of \$2,500 has been planned for the purchase of office equipment for the program’s full-time faculty member. In 2008-2009 and 2009-2010, computer equipment purchased for the IPM, program support staff and full-time faculty member will need to be replaced. It is anticipated that the equipment replacement costs in 2008-2009 will total \$5,000. The equipment replacement cost in 2009-2010 is estimated at \$2,500.

The following table provides a summary of the year and the amount of anticipated equipment purchases and the year equipment will be replaced along with the anticipated costs associated with replacing the equipment.

	2005 – 2006	2006 – 2007	2007 – 2008	2008 – 2009	2009 - 2010
Equipment Purchases	\$25,000	\$2,500			
Equipment Replacement				\$5,000	\$2,500

**Student tuition and fees.** Florida Community College’s current tuition is \$60.25 per credit hour. Both lower- and upper-division coursework in the new program will be offered at the same standard rate with no differential between lower- and upper-division coursework rates. Although tuition increases may be authorized by the State Board of Education and the College’s District Board of Trustees, the proposed program budget does not assume increases in student tuition.

**Cost Effectiveness**

Offering the proposed program entirely at FCCJ, rather than through an articulation agreement with a state university, provides significant cost savings to the state and to students, in terms of tuition, facilities, and other operational costs. As stated in a recent white

paper prepared for the Florida Board of Education, *Access to Baccalaureate Degree Instruction in Florida: Options and Opportunities*, offering limited programs at community colleges is one of the most cost-effective options for increasing access to baccalaureate education, when the approach is based upon expansion of programs in existing community college facilities. Operational costs are also less at community colleges. Thus, the state saves money by not duplicating an expensive program and students save money on tuition and fees.

**Savings on facility costs:** The ability to offer the specialized training needed is dependent upon very specific and expensive facilities. The existing Fire Training Academy at the College provides the necessary specialized facilities to deliver excellent advanced training in this field, and with these facilities in place, there is significant savings compared to creating new facilities. We should not duplicate, at great expense to the taxpayer, education and training facilities already in place.

**Is the cost to the student less than other available alternatives?**

**Yes.** Current tuition at FCCJ is \$60.25 per credit hour for Florida residents, while at the University of Florida (UF) it is \$98.50 per credit hour, a difference of \$38.25 per credit hour. The additional cost for the 60 hours of upper-division work (just in tuition) to a student who transfers to UF would be \$2,295. Similarly, if the University of North Florida (UNF) had an available alternative to the proposed degree, the cost per credit hour would be \$103.37. If the 60 hours of the upper-division portion of the program were completed at FCCJ tuition rates rather than UNF rates, it would represent a savings to the student of \$2,587.20. Because of its lower tuition rates, FCCJ can offer students the opportunity to earn a bachelor's degree at a savings of more than 39% compared to UF, and savings of more than 42% compared to UNF.

## VII. Summary

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The fire emergency management and public official stakeholders have clearly expressed the need for fire service leaders to have enhanced management expertise and advanced practice capabilities to respond more effectively to the critical situations firefighters face today. Changes in the complexities of the firefighting profession necessitate education beyond the traditional fire service areas to include knowledge in new areas such as hazardous materials and chemical preparedness, first responder counter-terrorism training and urban search and rescue management. Given the current scope and complexity of homeland security, tomorrow's firefighters will need preparation which is both specialized and complementary to their counterparts in law enforcement and other public service fields.

No educational institution in the Jacksonville area currently provides educational opportunities at the bachelor's degree level for individuals in the fire professional field. The complexities of managing a large fire department require that future leaders have a formal education in advanced fire and emergency response leadership skills and practices demanded by a post 9-11 environment.

Florida Community College at Jacksonville has followed the lead of fire and emergency management stakeholders to develop the program's curriculum through employer and student input around the model baccalaureate curriculum recommended by the National Fire Academy. This curriculum trains professionals to bring to a fire department leadership team the requisite knowledge, technical competencies and operational skills necessary for contemporary, high-performance leadership.

Florida Community College is dedicated to responding to the urgent needs in the communities served to meet the workforce needs of our public sector partners, such as this demand for increased leadership expertise and advanced practice to enhance the safety and security of the citizens of our region. Highly successful experience in serving the fire professional field, unique facilities which cannot be duplicated at a reasonable cost, and extensive partnerships with the agencies and professionals charged with protecting the public uniquely qualify Florida Community College to provide the Bachelor of Applied Science degree in Fire Science.

The B.A.S. degree in Fire Science is a logical and efficient expansion of the highly successful Associate in Science (A.S.) degree in Fire Science Technology offered for many years by Florida Community College at Jacksonville (FCCJ). The ability to offer the specialized training needed is dependent upon very specific and expensive facilities. The existing Fire Training Academy at the College—the most extensive and sophisticated of its type in Florida—provides the necessary specialized facilities and equipment to deliver excellent advanced training in this field. With these facilities—and the related technical equipment—in place, there is significant untapped capability and capacity. The College can meet this expressed need efficiently, effectively, and at a level of quality that can serve as a national model.

The need for this program is so great that this proposal has very strong support from fire officials, municipal leaders and university presidents throughout Northeast Florida. FCCJ's proposed Bachelor of Applied Science in Fire Science addresses a critical concern relative to fire and emergency response leadership insufficiencies and the educational opportunities for fire service professionals. Florida Community College enthusiastically submits this proposal

to provide a Bachelor of Applied Science in Fire Science in response to Northeast Florida's fire and emergency leaders' requirement for ensuring well-educated firefighters equipped to provide the requisite enhanced level of safety vital to our citizens demanded by a post 9-11 environment.

## Appendix A

### Bachelor of Applied Science in Fire Science Implementation Timetable

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April 2005	Revise the existing A.S. degree program.
April 2005	College President meets with the Executive Director of SACS to discuss accreditation process.
June 2005	Proposal for the revision of the existing A.S. degree program is submitted to the FCCJ Curriculum Committee for review and approval.
May – June 2005	CEPRI and Florida Board of Education review FCCJ's proposal.
July – October 2005	If approval for the degree program is given by the Florida Board of Education, College forms a Program Advisory Committee and hires consultants to assist with program development and SACS application. In addition, an Instructional Program Manager is hired for the program.
August 2005	1 <sup>st</sup> cohort of new students will enroll in lower-division classes.
October – November 2005	Upper-division curriculum and bachelor's degree program proposals are developed for College-wide for review.
November 2005	Final draft of degree program proposal and SACS application distributed College-wide for review.
December 2005	Application: Seeking Accreditation at a More Advanced Degree Level is submitted to SACS.
December 2005	Bachelor's degree program proposal is submitted to the FCCJ Curriculum Committee for review and approval.
January 2005	Bachelor's degree program is submitted to District Board of Trustees for review and approval.
January 2006	2 <sup>nd</sup> cohort of new students will enroll in lower-division classes.
January – August 2006	Recruitment, orientation, and advising for new and continuing students for the bachelor's degree program.
March - June 2006	SACS accreditation site visit and anticipated approval.
May 2006	3 <sup>rd</sup> cohort of new students will enroll in lower-division classes.
July 2006	A full-time faculty member is hired for the program.
August 2006	Upper-division courses begin.
May 2007	First graduates are produced from the baccalaureate degree program.

# Appendix B

## Existing Teaching Facilities at FCCJ

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### Fire Facilities

### Fire Equipment and Infrastructure

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#### South Campus

- 1) 26,823 sq. ft. of classroom buildings
- 2) 9,000 sq. ft. large lecture auditorium and video production center
- 3) 6,100 sq. ft. training tower for closed space training, ladder work and rappelling
- 4) Open burn pit for liquid fires
- 5) Open area for training props such as a propane-fired rail car and vehicles for extrication training
- 6) .5 mile driving track and a skid pad for emergency vehicle operation training
- 7) Gas-fired Burn Building
- 8) Enclosed space training props
- 9) Trench rescue areas
- 10) Urban search and rescue props
- 11) Lifescan Health center
- 12) 75-acre fire campus

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#### Total FCCJ

**\$20 million**

Approximate investment  
in fire equipment and infrastructure

# Appendix C – Funding Worksheet

## Budget

COLLEGE NAME Florida Community College

CONTACT PERSON: Jim Simpson

DEGREE NAME: Fire Science

TELEPHONE: 904-632-5049

E-MAIL: jsimpson@fccj.edu

College will seek accreditation to award degrees.

Joint proposal for degrees to be awarded by \_\_\_\_\_

	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
<b>I. PLANNED STUDENT ENROLLMENT</b>					
A. Student Headcount		35	83	120	167
B. Student Credit Hours Generated		585.0	1,395.0	2,010.0	3,805.0
C. Student FTE		20	47	67	94
<b>II. PLANNED PERFORMANCE</b>					
A. Number of Degrees Awarded			4	11	20
B. Number of Placements			4	11	20
C. Projected Annual Starting Salary			38,360	39,511	40,696

III. EXPENDITURES PLAN	2005-2006	2005-2006	2006-2007	2006-2007	2007-2008	2007-2008	2008-2009	2008-2009	2009-2010
	COST	COST/FTE	COST	COST/FTE	COST	COST/FTE	COST	COST/FTE	COST
<b>A. Personnel Costs</b>									
1. Faculty - Full-time			\$33,545		34,551		35,588		36,656
2. Adjunct Faculty					1,855		12,733		25,466
3. Teaching Assistants									
4. Executive or Managerial	66,000		67,980		70,019		72,120		74,284
5. Support Personnel	19,000		19,570		20,157		20,762		21,385
6. Other									
7. Fringe Benefits	26,300		38,297		38,951		39,625		40,318
<b>TOTAL FTE AND COSTS</b>	<b>\$111,300</b>		<b>\$159,392</b>	<b>\$7,970</b>	<b>\$165,534</b>	<b>\$3,522</b>	<b>\$180,828</b>	<b>\$2,699</b>	<b>\$198,108</b>
<b>B. Operating Expenditures</b>									
1. Travel	\$700		\$1,900		\$1,900		\$1,900		\$1,900
2. Professional Services	70,000								
3. Other Services									
4. Communications - Marketing	15,000		9,000		9,000		9,000		9,000
5. Utilities									
6. Materials and Supplies	5,650		3,803		4,289		6,315		8,661
7. Rentals									
8. Repairs and Maintenance									
9. Materials and Goods									
10. Miscellaneous									
<b>TOTAL OPERATING EXPENSES</b>	<b>\$91,350</b>		<b>\$14,703</b>		<b>\$15,189</b>		<b>\$17,215</b>		<b>\$19,581</b>
<b>C. Capital Outlay</b>									
1. Library Resources	\$20,000		\$5,000		\$2,000		\$2,000		\$2,000
2. Equipment	25,000		2,500		0		5,000		2,500
<b>TOTAL CAPITAL OUTLAY</b>	<b>\$45,000</b>		<b>\$7,500</b>		<b>\$2,000</b>		<b>\$7,000</b>		<b>\$4,500</b>
<b>D. Physical Facilities Construction or Major Renovation</b>	\$0		\$0		\$0		\$0		\$0
<b>GRAND TOTAL EXPENDITURES</b>	<b>\$247,650</b>		<b>\$181,595</b>		<b>\$182,723</b>		<b>\$205,043</b>		<b>\$222,169</b>
<b>IV. REVENUES</b>									
<b>A. Source of Funds</b>									
1. Baccalaureate Degree Grants	\$0		\$0		\$0		\$0		\$0
2. College Operating Budget	247,650		146,349		98,674		83,940		53,168
3. Student Tuition (\$60.25 per credit hour)	0		35,246		84,049		121,103		169,001
4. Federal Funds	0		0		0		0		0
5. Contributions or Matching Grants	0		0		0		0		0
6. Other Grants or Revenues	0		0		0		0		0
<b>TOTAL REVENUES</b>	<b>\$247,650</b>		<b>\$181,595</b>		<b>\$182,723</b>		<b>\$205,043</b>		<b>\$222,169</b>
<b>B. Nature of funds</b>									
1. Recurring	\$247,650		\$181,595		\$182,723		\$205,043		\$222,169
2. Non-recurring	0		0		0		0		0
<b>GRAND TOTAL REVENUES</b>	<b>\$247,650</b>		<b>\$181,595</b>		<b>\$182,723</b>		<b>\$205,043</b>		<b>\$222,169</b>

# Appendix D

## Support Letters

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University of North Florida	John A. Delaney, President	D-1
Jacksonville University	Kerry D. Romesburg, President	D-2
WorkSource	Bruce Ferguson Jr., President and CEO	D-3
Jacksonville Chamber of Commerce	Walter M. Lee III, President	D-4
Fraternal Order of Fire Chiefs	Phillip Eddins, President	D-5
Fernandina Beach Fire Rescue	Daniel Leeper, Fire Chief	D-6
Jacksonville Fire and Rescue	Richard A. Barrett, Director/Fire Chief	D-7
Jacksonville Beach Fire Department	Gary Frazier, Fire Chief	D-8
Macclenny Fire Department	Daniel J. Dugger, Director/Chief, Department of Public Safety	D-9
Nassau County Fire/Rescue	C.W. Cooper, Fire Chief	D-10
Naval Air Station Jacksonville	R.W. Hall, Fire Chief	D-11
Naval Station Mayport - Fire and Emergency Services	William E. Dietz III, Fire Chief/CFO	D-12
St. Johns County Fire Rescue	Robert V. Hall, Jr., Fire Rescue Chief	D-13
Mayor of the City of Fernandina Beach	Greg Roland, Mayor	D-14
Mayor of the City of Jacksonville	John Peyton, Mayor	D-15
Mayor of the City of Jacksonville Beach	Fland O. Sharp, Mayor	D-16
Mayor of the Town of Orange Park	Phyllis Renninger, Mayor	D-17
Jacksonville City Council	Elaine Brown, City Council President	D-18
Nassau County Board of County Commissioners	Tom Branan, Vice Chairman	D-19



4567 St. Johns Bluff Road, South  
Jacksonville, Florida 32224-2648  
(904) 620-2500 • FAX (904) 620-2515

OFFICE OF THE PRESIDENT  
John A. Delaney

March 1, 2005

Dr. Steven R. Wallace  
President  
Florida Community College at Jacksonville  
501 West State Street, Room 445  
Jacksonville, FL 32202

Dear President Wallace:

I am writing to offer UNF's full support of FCCJ's proposed Bachelor of Applied Science in Fire Science. The University of North Florida does not have plans to offer this degree as it does not fit with our mission, though we recognize the community need for such a program. On the other hand, Florida Community College at Jacksonville has a well established record of successfully administering the two-year program in Fire Science, making it the natural choice for providing the needed four-year degree.

Please accept my sincere good wishes for you in this endeavor. I know this program will be of great benefit to the Jacksonville community and the North Florida region.

Sincerely,

A handwritten signature in black ink, appearing to read 'John A. Delaney', written over a horizontal line.

John A. Delaney

JAD/sm

WE FULLY SUPPORT  
YOUR EFFORTS

A handwritten flourish or signature in black ink, consisting of a large, stylized loop.



February 9, 2005

Dr. Steven R. Wallace  
President  
Florida Community College at Jacksonville  
501 West State Street, Room 445  
Jacksonville, FL 32202

Dear President Wallace:

I am pleased to write on behalf of Jacksonville University and express our full support of FCCJ's proposed Bachelor of Applied Science in Fire Science. This is an excellent example of FCCJ responding to an urgent community need while building upon existing resources and expertise. There is no question that such a program of study is needed to address the ever-increasing skills and knowledge required of today's fire fighting professionals. FCCJ already has a highly respected two-year program in Fire Science, but the increasing complexities of the fire science profession simply cannot be thoroughly addressed within the limits of an Associate Degree program. Expanding this program to four years is a natural development for FCCJ.

Importantly, Jacksonville University does not offer any degrees related to Fire Science, nor do we have any plans for such degrees. The FCCJ degree would not be duplicative of any JU degrees, nor would it be viewed as competing for the same students.

I wish you well as you continue the development of this important new degree program. The opportunity for more highly trained fire fighting professionals will be of great benefit for the safety and security of our community and region.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kerry D. Romesburg'. The signature is fluid and cursive, with a large, sweeping flourish at the end.

Kerry D. Romesburg  
President

KDR:ds



2141 Loch Rane Blvd., Suite 107  
Orange Park, Florida 32073  
(904) 213-3800  
(904) 272-8927 fax  
[www.worksourcefl.com](http://www.worksourcefl.com)

March, 25, 2004

Dr. Stephen R Wallace  
President  
Florida Community College at Jacksonville  
501 W. State Street  
Jacksonville, Fl. 21102

Dear Dr. Wallace:

WorkSource strongly supports Florida Community College's (FCCJ) proposal to develop a bachelor's degree in fire science. FCCJ's Fire Academy is a unique and ideal venue for "hand on" practical training. A bachelor's degree combining advanced practice and enhanced management expertise is a more highly effective curriculum for firefighters responding to critical situations.

WorkSource anticipates a significant demand for graduates of this program. A combination of a large number of retiring professionals, the region's projected growth, and implementation of National Fire Protection Association (NFPA) 1710, which requires increased staffing to enhance firefighter safety, have all served to significantly increase area fire department's need for additional staffing of highly-skilled, well trained fire service professionals. A better-educated workforce in fire science is a critical component to providing a pool of qualified candidates to fill leadership positions in the regions fire departments.

This degree is crucial to the enhancement of our region's public protection, as well as its high-skill workforce development efforts. We are pleased to provide a letter in support of FCCJ's proposed Fire Science bachelor's degree and look forward to the results of its success

Sincerely,

A handwritten signature in cursive script that reads "Bruce Ferguson Jr.".

Bruce Ferguson Jr.  
President and CEO



WALTER M. LEE III  
PRESIDENT

April 12, 2005

Dr. Steven Wallace  
College President  
Florida Community College at Jacksonville  
501 West State Street  
Jacksonville, FL 32202

Dear Dr. Wallace:

As President of the Jacksonville Regional Chamber of Commerce, I am writing to express my enthusiastic support for Florida Community College at Jacksonville's (FCCJ) proposal to offer a Bachelor's of Applied Science in Fire Science.

Jacksonville is growing and changing rapidly and it is important to service that growth with highly trained and skilled fire service professionals to ensure the health and safety of its citizens. Our city has many at risk locations including major military bases, a major port, an international airport, chemical companies, many large office buildings and Alltel Stadium. I feel it is extremely important that FCCJ be given the opportunity to offer its students this choice of the Bachelor of Applied Science in Fire Science.

FCCJ strives to meet the workforce needs of the region and this proposal will ensure that our community will continue to have highly trained fire service professionals for many years to come.

Thank you for giving your attention to this important matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Walter M. Lee III". The signature is fluid and cursive, with a large initial "W" and "L".

Walter M. Lee III

# Fraternal Order of Fire Chiefs

February 25, 2005

Dr. Steven R. Wallace, President  
Florida Community College at Jacksonville  
501 West State Street, Room 445  
Jacksonville, Florida 32202

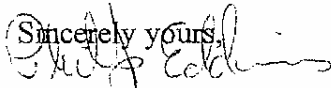
Dear Dr. Wallace,

As a fire chief for the City of Jacksonville and the President of our Chiefs' organization, I am writing to tell you how pleased we are that you are taking the steps to institute a four year program at the college. This is a bold step that is going to enable us to raise the educational bar of our firefighters to the next level. The fact that the model will be based on programs recommended by the National Fire Academy tells us that you are truly interested in producing quality leaders for the fire service.

We know this program will be met by the same enthusiasm the two year programs were in the early 70's. Shortly after their introduction many of us enrolled and Jacksonville soon had more firefighters with two year degrees than all other fire departments in the state. I am proud to say I am one of those firefighters.

Many of us look forward to enrolling at our college to complete our goal of a four year degree. The fact that classes will be offered on line will only enhance the enrollment. I hope all who endeavor in this program realize that it is your foresight that will have raised the college and our fire department to the forefront of leadership in the fire service in the State of Florida.

If there is any help we can provide, please let us know.

Sincerely yours,  


Phillip Eddins  
President, Fraternal Order of Fire Chiefs  
Jacksonville Fire Rescue Department



# City of Fernandina Beach Fire-Rescue

OFFICE OF  
FIRE CHIEF

April 6, 2005

225 South 14th Street  
Fernandina Beach, FL 32034  
904/277-7331  
Fax 904/277-7334  
TTY 904/277-7399

Dr. Steven R. Wallace, President  
Florida Community College at Jacksonville  
501 W. State Street  
Room 445  
Jacksonville, Florida 32202

Dear Dr. Wallace:

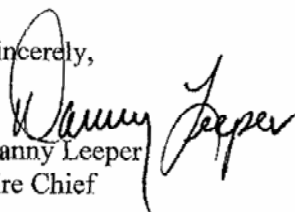
I strongly support Florida Community College in seeking authority from the State Board of Education to offer a Bachelor of Applied Science Degree in Fire Science. As Fire Chief for the Fernandina Beach Fire Rescue Department, one of my main goals is to develop the future leadership of the department in accordance with National Fire Prevention Association (NFPA) recommendations. Under the NFPA recommendations, anyone holding the rank of Chief or above would be required to have a bachelor degree. Our Lieutenants and Captains would be required to have an Associate degree and would be seeking the bachelor degree to be promoted to Chief. In order for it to be feasible to adopt these NFPA recommendations, we must develop a cadre of firefighters with these credentials. Access to your proposed Bachelor of Applied Science in Fire Science would serve the members of my department and my community well.

The complexities of managing today's fire department demand that future leaders have a formal education in advanced fire and emergency response management skills and practices. Your Bachelor of Applied Science Degree in Fire Science will provide precisely the training firefighters need to manage complex departments that must coordinate with other agencies in responding to contemporary threats to public safety. The existing Fire Training Academy at the College's South Campus provides the necessary specialized facilities, equipment, training aids and personnel to deliver excellent advanced training in this field.

I also support developing the degree around the model baccalaureate curriculum recommended by the National Fire Academy in 2002. I know that Florida Community College has been an active participant in the Fire Emergency Services High Education conferences held at the National Fire Academy since 1999, which resulted in the development of the baccalaureate degree. I appreciate your leadership and commitment to the development of a well educated and highly trained fire department to meet the public safety needs of the twenty first century.

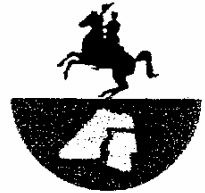
Please call on me if there is anything else I can do to help facilitate support for this degree.

Sincerely,

  
Danny Leeper  
Fire Chief



**FIRE AND RESCUE DEPARTMENT**  
**OFFICE OF THE DIRECTOR/FIRE CHIEF**



February 22, 2005

Dr. Steven R. Wallace, President  
Florida Community College at Jacksonville  
501 W. State Street  
Room 445  
Jacksonville, Florida 32202

Dear Dr. Wallace:

I strongly support your effort in seeking permission from the State Board of Education to offer a Bachelor of Applied Science Degree in Fire Science. As Director/Fire Chief for the Jacksonville Fire and Rescue Department, one of my main goals is to develop the future leadership of the Department in accordance with National Fire Prevention Association (NFPA) recommendations. Under the NFPA recommendations, anyone holding the rank of Chief or above (currently my Department has 40 Chiefs), would be required to have a Bachelor Degree. Our Lieutenants and Captains (currently my Department has 324 Lieutenants and Captains) would be required to have an Associate Degree, and would be seeking the Bachelor Degree to be promoted to Chief. The complexities of managing a large fire department demand that future leaders have a formal education in advanced fire and emergency response management skills and practices. Your Bachelor of Applied Science Degree in Fire Science will provide me with an excellent avenue to achieve this goal, and the existing Fire Training Academy at the College's South Campus provides the necessary specialized facilities to deliver excellent advanced training in this field.

I also support your developing the Degree around the model baccalaureate curriculum recommended by the National Fire Academy in 2002. I know that Florida Community College has been an active participant in the Fire Emergency Services High Education conferences held at the National Fire Academy since 1999, which resulted in the development of the baccalaureate degree. I appreciate your leadership and commitment to the development of a well-educated and trained Fire and Rescue Department.

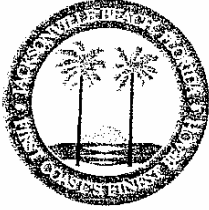
Please call me if there is anything further I can do to help facilitate support for this Degree.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Barrett".

Richard A. Barrett  
Director/Fire Chief

RAB:hw



## CITY OF JACKSONVILLE BEACH FIRE DEPARTMENT

904/247-6201 • 325 Second Avenue South • Jacksonville Beach, Florida 32250-5413  
EMERGENCY DIAL 9-1-1 FAX 904/247-6155

Dr. Steven R. Wallace, College President  
Florida Community College at Jacksonville  
501 West State Street  
Jacksonville, FL 32220

3-28-05

Dear Dr. Wallace,

I support Florida Community College in seeking authority from the State Board of Education to offer a Bachelor of Applied Science Degree in Fire Science.

As Fire Chief of Jacksonville Beach, I seek highly-skilled and well trained fire service professionals. A better-educated work force in fire science is a critical component to providing qualified services and candidates who will become future leaders in our department. Your proposed Bachelor of Applied Science Degree will assist in developing better firefighters.

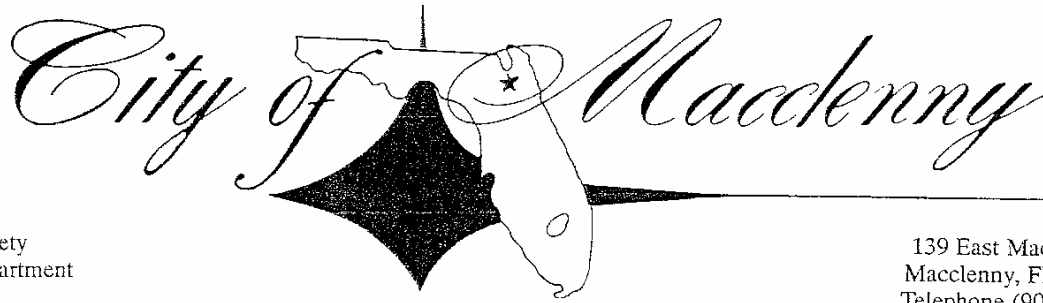
As a result of the events of the past few years and a changing environment, new challengers for fire service leadership necessitate education beyond the traditional fire services areas. Included is knowledge in hazardous materials, biological terrorism, and chemical preparedness. The State of Florida recognized this need and provides a pay incentive for fire fighters who obtain a bachelor's degree related to fire service.

Please call on me if there is anything else I can do to help facilitate support for this degree.

Respectfully,

A handwritten signature in cursive script that reads "Gary Frazier".

Gary Frazier, Fire Chief  
Jacksonville Beach Fire Department



Department of Public Safety  
Macclenny City Fire Department  
S.O. Class Four  
www.cityofmacclenny.com

March 25, 2005

139 East Macclenny Ave.  
Macclenny, Florida 32063  
Telephone (904) 259-3331  
Email: firedepartment@cityofmacclenny.com  
Fax (904) 259-8421

Dr. Steven R. Wallace, College President  
Florida Community College at Jacksonville  
501 West State Street  
Jacksonville, FL 32220

Dear Dr. Wallace:

Macclenny City Fire Department enthusiastically supports Florida Community College's (FCCJ) seeking authority from the State to offer a Bachelor of Applied Science Degree in Fire Science based on the baccalaureate curriculum recommended by the National Fire Academy.

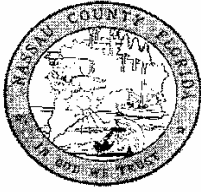
We place a high priority on recruiting professionals prepared to address the increasing complexities of the fire fighting profession in a post 9-11 environment. Your Bachelor of Applied Science Degree will produce future leaders who will have both the education and skills to address these complexities.

We appreciate FCCJ's leadership in developing new fire science technology programs that will help us recruit the best candidate who will protect the citizens of Macclenny.

Please call on me if there is anything I can do to help facilitate support for this degree.

Sincerely,

Daniel J. Dugger, Director/Chief  
Department of Public Safety  
City of Macclenny, Florida 32063



NASSAU COUNTY BOARD OF COUNTY COMMISSIONERS

**FIRE/RESCUE DEPARTMENT**

96135 Nassau Place Box 1 Yulee, Florida 32097-8625

(904) 491.7525 • (904) 879.3300 • 1.866.832.1317  
Fax (904) 321.5748



April 6, 2005

Dr. Steven R. Wallace, College President  
Florida Community College at Jacksonville  
501 West State Street  
Jacksonville, Florida 32220

Dear Dr. Wallace:

We at Nassau County Fire Rescue strongly support Florida Community College's (FCCJ) proposal to develop a Bachelor of Applied Science in Fire Technology. We depend on highly skilled, well-trained fire service professionals for the safety of the Nassau County citizens and guest.

The fire service has become increasingly complex in the post September 11, 2001 environment and individuals who work in fire service need both enhanced management training and advanced practice and experience in key areas based on the National Fire Academy's higher education model, such as the degree FCCJ is proposing.

We are pleased to extend our support to the new degree and assist with its development to ensure that it is designed to meet specific needs in our region. We look forward to working with you on this important endeavor, as it will significantly address our fire service needs.

Sincerely,

A handwritten signature in cursive script, appearing to read "C.W. Cooper".

C.W. Cooper  
Fire Chief

*An Affirmative Action / Equal Opportunity Employer*



NASSAU COUNTY BOARD OF COUNTY COMMISSIONERS  
DEPARTMENT OF THE NAVY



FIRE DEPARTMENT  
FIRE/RESCUE DEPARTMENT

P.O. BOX 133  
96135 Nassau Boulevard Yulee, Florida 32097-8625  
JACKSONVILLE, FLORIDA 32212-0133

(904) 491.7525 • (904) 879.3300 • 1.866.832.1317  
Fax (904) 321.5748

28 Mar 05

April 6, 2005.  
From: Fire Chief, Naval Air Station Jacksonville Florida  
To: Dr. Steven R. Wallace, College President Florida Community College at Jacksonville

Dr. Steven R. Wallace, College President  
Subject: SUPPORT OF THE FIREFIGHTER BACHELOR DEGREE PROGRAM AT FLORIDA COMMUNITY COLLEGE  
Florida Community College at Jacksonville  
501 West State Street  
Jacksonville, Florida 32220

I strongly support Florida Community College in seeking authority from the State Board of Education to offer a Bachelor of Applied Science Degree in Fire Science.

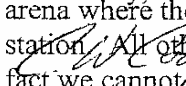
Dear Dr. Wallace:

The Naval Air Station Jacksonville Fire Department places a high priority on recruiting professionals prepared to address the increasing complexities of the fire fighting profession. We depend on highly skilled and well-trained fire service professionals for safe service to the community. We are currently facing a number of challenges for fire service leaders beyond the traditional fire service areas, to include knowledge in new areas from hazardous materials WMD/CBRNE and chemical preparedness to first responder services.

The fire service has become increasingly complex since the late September 2001 attacks. We need individuals who have both on and off duty leadership and management skills. We need individuals who have advanced practice and experience in key areas based on the National Fire Academy's higher education model, such as the degree FCCJ is proposing.

We have found increasingly candidates in the area who do not have the required knowledge or skills for today's high tech firefighting and emergency response requirements. We are pleased to extend our support to the new degree and assist with its development to ensure that it is designed to meet specific needs in our region. We look forward to working with you on this important endeavor, as it will significantly address our fire service needs. In fact in the last year I have had qualified personnel taken from me by other departments due to the technical skills and abilities they possess. I cannot continue to lose these valuable assets. I also have the need to train the people. I have need of an arena where they can receive their degree on line or at least in close proximity to the station. All other degree programs have been cost prohibitive for my personnel due to the fact we cannot reimburse them for any training. We feel if this program is granted by the State Board of Education it will offer opportunities to my firefighters no other program even remotely addresses.

Sincerely,

  
R.W. Cooper  
Fire Chief

I appreciate your leadership and commitment to the development of a well educated and highly trained fire department to meet the public safety needs of the twenty first century. The officers and Staff at Fire Department Naval Air Station Jacksonville fully support your efforts and if there is anything we can do please don't hesitate to call

Respectfully



R.W. Hall

An Affirmative Action / Equal Opportunity Employer



Naval Station Mayport  
Fire and Emergency Services  
24 March 2005

Mr. Steven R. Wallace  
College President  
Florida Community College at Jacksonville  
501 West State Street  
Jacksonville, Florida 32220

Dear Dr. Wallace:

As Fire Chief for Mayport Naval Station I enthusiastically support Florida Community College's (FCCJ) proposal to create a new Bachelor of Applied Science in Fire Technology that is based on the National Fire Academy higher education model.

New challenges for fire service leadership necessitate education beyond the traditional fire service areas, to include knowledge in new areas from hazardous materials and chemical preparedness to first responder counter-terrorism training since 9-11.

We appreciate FCCJ's leadership in developing new fire science technology programs that will develop future leaders who will have these needed skills.

Sincerely,

  
WILLIAM E. DIETZ III  
FIRE CHIEF CFO

# ST. JOHNS COUNTY, FLORIDA

*Board of County Commissioners*



FIRE RESCUE

4455 AVENUE A · SUITE 100  
SAINT AUGUSTINE, FLORIDA  
32095

Phone: (904) 823-2526  
(904) 829-5078  
Fax: (904) 823-2530

March 24, 2005

Dr. Steven R. Wallace, College President  
Florida Community College at Jacksonville  
501 West State Street  
Jacksonville, FL 32220

Dear Dr. Wallace:

We at St. Johns County Fire Rescue strongly support Florida Community College's (FCCJ) proposal to develop a Bachelor of Applied Science in Fire Technology. We depend on highly-skilled, well trained fire service professionals for the safety of the St. Johns County citizens.

The firefighting profession has become increasingly complex in the post 9-11 environment and individuals who work in fire service need both enhanced management training and advanced practice and experience in key areas based on the National Fire Academy's higher education model, such as the degree FCCJ is proposing.

We are pleased to extend our support to the new degree and assist with its development to ensure that it is designed to meet specific needs in our region. We look forward to working with you on this important endeavor, as it will significantly address our workforce needs.

Sincerely,

A handwritten signature in black ink that reads "Robert V. Hall, Jr." with a stylized flourish at the end.

Robert V. Hall, Jr.  
Fire Rescue Chief



# City of Fernandina Beach

OFFICE OF THE MAYOR

April 5, 2005

Dr. Steven R. Wallace, College President  
Florida Community College at Jacksonville  
501 West State Street  
Jacksonville, FL 32202

Dear Dr. Wallace:

The City of Fernandina Beach is very supportive of the college's effort to increase the level of safety for our citizens through the training of highly skilled, well-trained fire service professionals. We enthusiastically support Florida Community College's proposal to develop a bachelor's degree in fire science based on the National Fire Academy's model.

The protection of our residents, businesses, and our many visitors is very important, especially in this post 9-11 environment. The city is home to manufacturing facilities, a port, a residential historic district, many small businesses, numerous lodging properties and over 11,000 permanent residents, all located on a barrier island. We support any effort made to increase the level of safety provided to those who reside, work and visit the City of Fernandina Beach. Increasing the educational options for our professional fire fighters will only increase the already high level of service that they offer.

The increasing complexities of the fire fighting profession, beyond the traditional fire service areas, require knowledge in new areas from hazardous materials and chemical preparedness to first responder counter-terrorism training. A bachelor's degree combining advanced practice and enhanced management expertise is a more effective combination for firefighters responding to critical situations.

The FCCJ program for a bachelor's degree in fire science will address the region's need for hiring better educated firefighters to provide this enhanced level of safety. We appreciate FCCJ's leadership in education issues and look forward to working with you on this degree to continue the work that is vital for the protection of our citizens and the future of our county.

Sincerely,

Greg Roland

Mayor



**OFFICE OF THE MAYOR**

**JOHN PEYTON**  
MAYOR

ST. JAMES BUILDING  
117 WEST DUVAL STREET  
SUITE 400  
JACKSONVILLE, FLORIDA 32202

March 31, 2005

Dr. Steven R. Wallace  
College President  
Florida Community College at Jacksonville  
501 West State Street  
Jacksonville, Florida 32202

Dear Dr. Wallace:

I am writing this letter to enthusiastically support Florida Community College's proposal to develop a bachelor of applied science degree in fire science.

A bachelor's degree combining management expertise and advanced professional practice will be a highly effective tool for responding to the critical situations firefighters and their leaders face today. A degree program that encompasses the complexities of a post 9-11 world would support a highly skilled and well-trained fire service, and provide for an enhanced level of performance and safety. The State of Florida recognizes this and provides a pay incentive for firefighters who obtain a bachelor's degree related to fire service.

Jacksonville is the largest city in the contiguous United States in land area and is home to many high-profile, "at risk" locations such as a major port, rail services, chemical companies, military bases, an international airport, and an NFL Stadium. As such, it is time to upgrade the capabilities of our fire professionals and their department.

I appreciate FCCJ's responsiveness to the educational needs of our community and look forward to working with you on this degree, which, in my view, is vital to the protection of our citizens and the future of our great city.

Sincerely,

A handwritten signature in black ink, appearing to read "John Peyton".

John Peyton  
Mayor

JP/jl



Printed on Recycled Paper



# City of Jacksonville Beach

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ELEVEN NORTH THIRD STREET • JACKSONVILLE BEACH, FLORIDA 32250

Phone: 904 / 247-6268

April 8, 2005

Dr. Steven R. Wallace, President  
Florida Community College at Jacksonville  
501 West State Street  
Jacksonville, FL 32202-4076

Dear Dr. Wallace:

As Mayor of the City of Jacksonville Beach, I'd like to lend my support of the application being submitted to the Florida Board of Education for approval to offer a Bachelor's of Applied Science in Fire Science.

This practitioner-oriented program is being developed in consultation with area fire chiefs and will be based on the National Fire Academy curriculum. The courses required for this degree will be offered at the regional fire academy facilities in Jacksonville, and will better prepare our firefighters and their managers to more professionally carry out their duties.

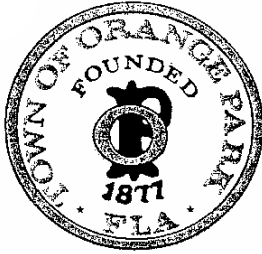
It is my understanding that this program has the full support of the University of North Florida, Jacksonville University and area fire chiefs. Positive consideration of this application will enable the curriculum to be available locally. The curriculum will feature both advanced practice and management skills, as well as the general education elements such as communication and critical thinking, which are standard to all bachelor degrees.

Sincerely,



Fland O. Sharp  
Mayor

FOS:mjs



## Town of Orange Park

2042 Park Avenue • Orange Park, Florida 32073 • Telephone 904/264-9565

March 29, 2005

Dr. Steven R. Wallace, College President  
Florida Community College at Jacksonville  
501 West State Street  
Jacksonville, FL 32202

Dear Dr. Wallace:

As Mayor of the Town Council of the Town of Orange Park I wish to address the issue of your proposed bachelor of applied science program. The Town of Orange Park maintains its own Public Safety Force (Police, fire, and Emergency Personnel) and must maintain highly skilled and well-trained fire service professionals. The sophistication and complexity of the knowledge and skills needed are ever increasing, thereby creating an enormous responsibility for our educational institutions. I commend Florida Community College (FCCJ) for its proposal to develop a bachelor of applied science degree in fire science. The citizens of Orange Park depend on the high skill level of our Fire Department and I believe that the applied nature of your degree is exactly what this Town needs for its future firefighters to serve with distinction.

Since 9-11 our Public Safety Department, and especially the fire fighting profession, demands education beyond the traditional fire service areas to include knowledge in new areas such as hazardous materials management, methods of counter-terrorism, critical incident management, biohazard containment and first responder skills. The new FCCJ program, based on the National Fire Academy's model for the bachelor's degree, will be an asset to our community.

The Town of Orange Park and its citizens deserve the best trained firefighters and leaders. I feel strongly that it is exceedingly important that the Florida Board of Education assist FCCJ in meeting the needs of our citizens by responding positively to this proposal.

This proposal is most critical not only because it will provide for highly trained fire service professionals but will also help ensure the health and safety of individuals in the Town of Orange Park. I look forward with great anticipation to hearing from you that this new degree has been approved.

Sincerely,

Phyllis A. Renninger, Mayor  
Town of Orange Park

OFFICE OF THE CITY COUNCIL

ELAINE E. BROWN  
PRESIDENT  
COUNCILWOMAN AT-LARGE, GROUP 2  
OFFICE (904) 630-1381  
FAX (904) 630-2906  
E-MAIL: elaineb@ccj.net

March 8, 2005

117 WEST DUVAL STREET  
SUITE 425  
JACKSONVILLE, FLORIDA  
32202

Dr. Steven R. Wallace, College President  
Florida Community College at Jacksonville  
501 West State Street  
Jacksonville, FL 32202

Dear Dr. Wallace:

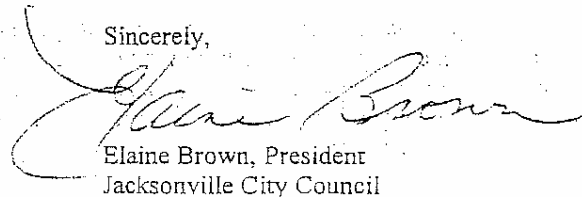
As President of the Jacksonville City Council I believe it is of the utmost importance for me to speak to the issue of your proposed bachelor of applied science. It is critical that the City of Jacksonville has the ability to provide highly skilled and well-trained fire service professionals. As you are aware, in a post 9-11 environment, the sophistication and complexity of the knowledge and skills needed are ever increasing, thereby creating an enormous responsibility for our educational institutions. I commend Florida Community College for its proposal to develop a bachelor of applied science degree in fire science. I am well aware of the fine working relationship that you have with our Fire Department and believe that the applied nature of your degree is exactly what this city needs for its future firefighters to serve with distinction.

The contemporary complexities of the fire fighting profession necessitate education beyond the traditional fire service areas to include knowledge in new areas such as hazardous materials management, methods of counter-terrorism, critical incident management, biohazard containment, and first responder skills. That the new program will be based on the National Fire Academy's model for the bachelor's degree will be a real strength.

Our city is home to significantly "at risk" locations such as a major port, rail services, chemical companies, an international airport, and Alltel Stadium. Accordingly, it is time to upgrade the capabilities of our fire professionals and their department. We will be hiring many new firefighters and promoting many current fire service professionals to management positions. Our citizens deserve the best trained firefighters and leaders. I feel strongly that it is exceedingly important that the Florida Board of Education assist the college in meeting the needs of our citizens by responding positively to this proposal.

Our community college will continue to succeed in its mission to meet the workforce needs of our city. This proposal is most critical not only because it will provide for highly trained fire service professionals but will also help ensure the health and safety of individuals in our community. I look forward with great anticipation to hearing from you that this new degree has been approved.

Sincerely,



Elaine Brown, President  
Jacksonville City Council



**NASSAU COUNTY**  
BOARD OF COUNTY COMMISSIONERS  
P.O. Box 1010  
Fernandina Beach, Florida 32035-1010

Jim B. Higginbotham    Dist. No. 1 Fernandina Beach  
Ansley Acree            Dist. No. 2 Fernandina Beach  
Tom Branan             Dist. No. 3 Yulee  
Floyd L. Vanzant        Dist. No. 4 Hilliard  
Marianne Marshall      Dist. No. 5 Callahan

JOHN A. CRAWFORD  
Ex-Officio Clerk

MICHAEL S. MULLIN  
County Attorney

MIKE MAHANEY  
County Administrator

April 11, 2005

Dr. Steven R. Wallace, College President  
Florida Community College at Jacksonville  
501 West State Street  
Jacksonville, FL. 32202

Dear Dr. Wallace:

The Nassau County Board of County Commissioners supports the college's effort to increase the level of safety for our citizens through the training of highly skilled, well trained fire service professionals. We strongly support Florida Community College's proposal to develop a bachelor's degree in Fire Science based on the National Fire Academy's model.

Public protection is very important, especially in the environment that was brought about by the tragedy of 9-11. An enhanced level of safety, provided by a professionally trained force, is a priority to Nassau County. Nassau County has a diverse economy which includes a port, paper manufacturing facilities, agriculture, numerous small businesses, timber, and a significant tourist industry. We also are the first coastal county in North Florida and experience a tremendous traffic flow on our interstate.

A bachelor's degree combining advanced practice and enhancement management expertise is a more effective combination for firefighters responding to critical situations. The increasing complexities of the fire fighting profession necessitate education beyond the traditional fire service areas, to include knowledge in new areas from hazardous materials and chemical preparedness to first responder counter-terrorism training.

The FCCJ program for a bachelor's degree in Fire Science will address the region's need for hiring better-educated firefighters to provide this enhanced level of safety. We appreciate FCCJ's leadership in education issues and look forward to working with you on this degree to continue the work that is vital for the protection of our citizens and the future of our county.

Sincerely,

Tom Branan  
Vice Chairman

(904) 491-7380 or (800) 789-6673

*An Affirmative Action / Equal Opportunity Employer*

## Appendix E – Board of Trustees Support

### Florida Community College at Jacksonville

### District Board of Trustees

### Resolution 2005-1

### *Resolution of Commitment to the Community College Mission*

WHEREAS, the unique and essential mission of community colleges has the strongest possible support of the District Board of Trustees, administration, faculty and staff of Florida Community College at Jacksonville, and

WHEREAS, community colleges have evolved significantly in response to community needs and interests throughout their history, and

WHEREAS, the laws of the State of Florida allow for community colleges to be authorized to confer baccalaureate degrees where a substantive need is demonstrated conclusively, and

WHEREAS, Florida Community College at Jacksonville has the ability to efficiently and effectively extend the value and impact of some of its highly successful Associate in Science degree programs by utilizing existing faculty, facilities and equipment to provide upper division education, and

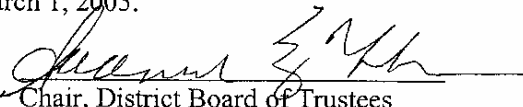
WHEREAS, Florida Community College at Jacksonville has an interest in offering a very limited number of practitioner-oriented, applied baccalaureate degree programs in unserved or underserved areas of high employer demand, student interest, and significant career opportunity for graduates, and

WHEREAS, it is the well considered determination of the Board and administration of Florida Community College at Jacksonville that the addition of a small number of applied baccalaureate programs represents the natural evolution of the College and will not, in any regard, alter the College's character as a community college,

NOW, THEREFORE, BE IT RESOLVED by the District Board of Trustees of Florida Community College at Jacksonville that:

1. The Board hereby affirms its strong and unwavering commitment to the continued adherence to all elements of the community college mission by Florida Community College at Jacksonville, and
2. It is the unanimously held position of the Board that the addition of a limited number of high-demand practitioner-oriented baccalaureate degree programs will elevate the College's responsiveness to community needs and thereby enhance the fulfillment of its mission as a community college, and
3. The Board hereby affirms its intent that Florida Community College at Jacksonville shall fully remain a community college in name, practice and character in the event that it is granted the authority to confer a limited number of baccalaureate degrees, and
4. The College shall continue to assign a high priority to academic collaboration with other institutions of higher education in the region and shall not pursue authority to offer any baccalaureate degree duplicative of an existing program available to citizens of the College's service area.

Approved unanimously by the District Board of Trustees on March 1, 2005.

  
Chair, District Board of Trustees  
Florida Community College at Jacksonville

## **APPENDIX F**

### **FCCJ Process for Program Inactivation**

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Inactivating a program at Florida Community College can be accomplished using the following process as a guide. In general, the program inactivation process involves three specific steps:

- I. Investigation Process
- II. Submission of the Program Inactivation Form
- III. Notification Process

A program inactivation may be initiated due to a state-mandated change or a College decision. The process should be modified depending upon the specific situation.

#### **I. Investigation Process**

A program inactivation should be considered based upon a state Department of Education mandate, a need demonstrated through FCCJ's College Program Review (CPR) process, or other information concerning student needs and student success. Examples of reasons for program inactivation include:

- The program has been eliminated at the state level by the DOE
- The program no longer meets a workforce need, as demonstrated by consistently low enrollments and placements reported through CPR
- The program no longer meets student needs – it is too long, it is the wrong type of program, or it is unattractive for other reasons, relative to the type of jobs for which it provides preparation – and may have consistently low enrollments/completions reported by CPR
- A program specialization track may also be inactivated for any of the above reasons or in order to streamline the program and increase program efficiency

Once the decision has been made for inactivation, the appropriate campus leadership will create a program inactivation plan. In the case of programs offered on more than one campus, the dean designated as college-wide coordinator for that program should facilitate the development of the inactivation plan with input from all campuses. Program faculty will be notified and their input encouraged. The plan should specifically address options for currently enrolled students:

- Option 1: Transition of all currently enrolled students to another program of study
- Option 2: Tracking and advisement of all currently enrolled students to facilitate completion of program within a specified time period

#### *Option 1 – All students transition to another program of study*

The program inactivation plan must indicate an appropriate program of study for student transfer. Course substitutions should be used whenever possible to minimize the amount of duplicate or redundant coursework students would need to complete. All program student academic records should be reviewed to determine viability for this option.

*Option 2 – All students given a specified time for program completion*

The program inactivation plan must indicate the viability of program completion. If it is not in the best interest of students to continue to graduate them in the program of study to be inactivated, option 1 should be considered. If it is determined that continued program graduation is viable, then a specified period of time must be established for program completion. The specified period of time should be as short as reasonably possible and should not exceed 5 years. The specified period of time must address both program of study (POS) and program-specific course inactivations.

*Choice of Option 1 or 2 - Students given the choice between transfer to another program of study or program completion in a specified period of time*

The program inactivation plan should use this option if both processes offer a viable option for students in the program. The plan should address the issues described in option 1 and option 2.

## Section 1.01 II. Program Inactivation Form and Approval Process

This form is included on the next page, and must be completed with required signatures. In the case of programs that are offered on more than one campus, one campus may be designated to submit the form, and a list of individuals who participated in development of the inactivation plan should be attached. A copy of the completed, approved form will be returned to all signatories.

The Workforce Development department will prepare and submit a Board of Trustees agenda item for final approval of the program inactivation.

### III. Notification Process

The final step in the program inactivation process is notification. Once Board approval of the inactivation has been received, the Dean (Center Director) or a designee should formally notify the following groups concerning the program inactivation.

- Students currently enrolled in the program, or students who have selected the program of study but have not yet enrolled – by certified letter to each individual student. Be sure to specify the student option selected and the process each student will be required to follow.
- Program Advisory Committee – A formal notification should be sent to each member of the program advisory committee.
- Program Faculty – A formal notification should be sent to each program faculty member.

Curriculum Services will notify the following individuals that the program has been officially inactivated:

- Registrar's Office – Staff in charge of degree audit must be notified and course history established. The Request to Change Program of Study form and the FCCJ College Membership Application information page listing the available programs must be changed.
- Financial Aid Office – The Director of Financial Aid must be notified that the program is no longer active and eligible for financial aid.

- Marketing and Communications – Will notify the College Information Center/Learning Support Center, and remove information on the program from all promotional materials, the College Web site, and other communications sent to students and other clientele.
- Articulation Officer – Will notify any articulation partners and revise the articulation website.

Marketing and Communications will notify the following individuals college-wide:

- Counseling and Advising Staff – A formal notification should be sent to each campus Student Success Office, Career Development Center, and other counseling/advising staff, including the Distance Learning Office and the Military Education Institute. The notice should include detailed instructions for the counselors and advisors concerning the program inactivation and the student option selected. A point of contact should be given in the notification for any follow-up questions or concerns.

## **Program Inactivation Checklist**

### **1. Investigation**

- Review CPR reports
- Review enrollment data
- Review completion data
- Review placement data
- Program faculty informed
- Program Inactivation Plan developed
- Program Inactivation Form completed

### **II. Curriculum**

- Curriculum Services Office notified
- Board of Trustees agenda item developed and submitted
- Board approval obtained
- End-term dates for POS and program-specific courses entered in ORION

### **III. Notification**

- Program students notified by Certified Mail
- Program Advisory Committee members notified
- Program faculty notified
- Registrar's Office, Financial Aid Office, Articulation Officer, and Marketing notified
- Counselors and advisors notified

**PROGRAM INACTIVATION FORM**

Date: \_\_\_\_\_

Program of Study: \_\_\_\_\_

Program of Study (POS) Number: \_\_\_\_\_ Effective Term: \_\_\_\_\_

Campus: \_\_\_\_\_ Program Manager: \_\_\_\_\_

Program Inactivation due to: \_\_\_\_\_ State Mandate  
\_\_\_\_\_ CPR Targeted \_\_\_\_\_ Low Enrollment  
\_\_\_\_\_ Low Completion  
\_\_\_\_\_ Low Placement  
\_\_\_\_\_ Other (describe below)

Brief Description of Reasons for Program Inactivation:

Program Student Options:

\_\_\_\_\_ Option 1 Appropriate POS for student transfer: \_\_\_\_\_  
\_\_\_\_\_ Option 2 Specified period of time for program completion: \_\_\_\_\_ terms  
End term program of study: \_\_\_\_\_ Term  
End term program-specific courses: \_\_\_\_\_ Term

**APPROVALS**

Program Manager: \_\_\_\_\_ Date: \_\_\_\_\_

Campus Dean: \_\_\_\_\_ Date: \_\_\_\_\_

Campus President: \_\_\_\_\_ Date: \_\_\_\_\_

Associate Vice President: \_\_\_\_\_ Date: \_\_\_\_\_

Executive Vice President: \_\_\_\_\_ Date: \_\_\_\_\_

After signed by EVP, return to Curriculum Services for submission to Board and computer input. For college-wide programs, attach list of individuals who participated in development of inactivation plan.

# Appendix G

## New Course Descriptions

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FFP-2120                      Building Construction for Fire Service    3 credits

This course deals with building construction as it relates to assault by fire and gravity. Considerable study and discussion will focus on how construction and the enforcement of codes and standards can influence fire spread, fire, confinement, and building collapse. Other areas of study include those of federal, state, and local laws applicable to the fire service; review of Fire Codes and Standards of the National Fire Protection Association; the Fire Prevention Code of the American Insurance Association; and the role of the State Fire Marshal.

FFP-2111                      Fire Chemistry    3 credits

This course is designed to provide the student with an understanding of the basic chemistry of hazardous materials, features of matter and energy, forms of matter, chemical formulas of flammable and combustible substances, the nature of chemical bonding, and the principles of chemical reactions in relation to incidents involving fire and/or corrosives. Study involves pyrophoric metals, hypergolics, cryogenics, and pesticides as well as the more common materials and chemicals. Emphasis is placed on methods to recognize hazardous materials in the field. Sources of information relative to safe handling of materials and extinguishing associated fires are studied.

FFP-1730                      Fire Department Administration I                      3 credits

This course presents the principles of organization and administration within the fire protection services with specific emphasis on company personnel management and training, fire equipment, communications, maintenance, budgeting, records and reports, insurance rating systems, fire prevention, and public relations and EMS.

FFP-1505                      Fire Prevention    3 credits

The course presents the structure and function of the fire prevention organization including the interpretation and application of codes and regulations, a study of the procedures and techniques of fire prevention, including inspection, surveying and mapping, recognition and elimination of fire hazards, the problems of public relations and the coordination with other governmental agencies.

FFP-2702                      Principles of Emergency Services                      3 credits

This course provides an overview to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/services; fire loss analysis, organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.

FFP-2740                      Fire Service Instructor Methods                      3 credits

This course draws from numerous recognized authorities in exploring the methods and mechanics of imparting information within the adult learning process. This course emphasizes techniques that provide a wide variety of applications within the instructional setting. Students will learn the purpose and types of training necessary in fire department operations. In addition, selection criteria for specific types of instruction will be presented as well as correct utilization of training equipment, (i.e., slide projectors, overheads, computer-projector units, props, etc.).

FFP-2670                      Legal Issues in Fire Service                              3 credits

This course introduces the Federal, State, and local laws that regulate emergency services, national standards influencing emergency services, standard of care, tort, liability, and review of relevant court cases.

FFP-2610                      Fire Behavior and Combustion                              3 credits

This course explores the theories and fundamentals of how and why fires start, and how they are controlled

FFP-2301                      Fire Service Hydraulics                                      3 credits

This course provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and apply hydraulic principles to analyze and to solve water supply problems.

FFP-1540 Fire Protection Systems 3 credits

This course is the study of private fire and detection systems such as sprinkler and standpipe systems, chemical extinguishing systems, and detection/alarm systems and devices. This course also includes a review of the design, installation, maintenance and testing of said systems.

EFS-3015 Advanced Fire Administration 3 credits

PREREQUISITE(S): FFP-1730 Fire Department Administration I

This course examines organizational and leadership tools for fire service administrators, including approaches to administration, core skills, planning and implementation, leading change, and community risk management.

EFS-3XXX Fire-Related Human Behavior 3 credits

This course examines human aspects of the fire problem, including research and analysis of the problem and related issues in residential properties, wildland fires, assisted living/group home situations, commercial/industrial settings, and multiuse high-rise buildings.

EFS-3803 Disaster and Fire Defense Planning 3 credits

This course examines concepts and principles of community risk assessment, planning, and response to fires and natural disasters, including the Incident Command System (ICS), mutual aid and automatic response, training and preparedness, communications, civil disturbances, natural disasters, hazardous materials planning, mass casualty disasters, earthquake preparedness, and disaster recovery.

EFS-3XXX Political & Legal Foundations of Fire Protection 3 credits

This course examines the legal, political and social aspects of government's role in public safety, including the American legal system, fire department operations, employment and personnel issues, fire officials' roles and legislative and political influence.

EFS-4XXX Fire Dynamics 3 credits

PREREQUISITE(S): FFP-2111 Fire Chemistry and  
FFP-2610 Fire Behavior and Combustion

This course examines fire dynamics within the context of firefighting and its applications to fire situations, including combustion, flame spread, flashover, and smoke movement, as well as applications to building codes, large-loss fires, and fire modeling.

EFS-4XXX Application of Fire Research 3 credits

This course examines the rationale for conducting fire research, various fire protection research activities, and research applications, including fire test standards and codes, structural fire safety, automatic detection and suppression, life safety, and firefighter health and safety.

EFS-3533 Community and the Fire Threat 3 credits

This course examines concepts of community sociology, the role of fire-related organizations within the community, and their impact on the local fire problem, including fire service relationships within the community and other agencies, developing a community inventory, shaping community policy, master planning, and shaping community perceptions about the local fire service.

EFS-4585 Fire Prevention Organization and Management 3 credits

This course examines the factors that shape fire risk and the tools for fire prevention, including risk reduction education, codes and standards, inspection and plans review, fire investigation, research, master planning, various types of influences, and strategies.

PREREQUISITE(S): FFP-1540

This course examines design principles involved in structural fire protection and automatic suppression systems, including fire resistance and endurance, flame spread evaluation, smoke control, alarm systems, sprinkler innovations, evaluation of sprinkler system designs, and specialized suppression systems.

EFS-4685	Incendiary Fire Analysis and Investigation	3 credits
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This course examines technical, investigative, legal, and managerial approaches to the arson problem, including principles of incendiary fire analysis and detection, environmental and psychological factors of arson, gang-related arson, legal considerations and trial preparations, managing the fire investigation unit, intervention and mitigation strategies, and shaping the future.

EFS-4823	Managerial Issues in Hazardous Materials	3 credits
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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, command post dynamics, strategic and tactical considerations, recovery and termination procedures, and program evaluation.

EFS-4XXX	Fire Protection Structures and System Design	3 credits
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This course examines design principles involved in structural fire protection and automatic suppression systems, including fire resistance and endurance, flame spread evaluation, smoke control, alarm system, sprinkler innovations, evaluation of sprinkler system designs, and specialized suppression systems.

PREREQUISITE: EFS-3015      Advanced Fire Administration

This course examines relationships and issues in personnel administration and human resource development within the context of fire-related organizations, including personnel management, organizational development, productivity, recruitment and selection, performance management systems, discipline, and collective bargaining.

# Appendix H

## Florida Administrative Code and Florida Statute

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### 69A-37.055 Minimum Curriculum Requirements for Training Firefighter Recruits or Firefighters.

(1) The minimum firefighter training embodied in the curriculum requirements for schools operated by or for any employing agency for the specific purpose of training firefighter recruits or firefighters shall consist of 160 hours of training to complete Firefighter I training and an additional 200 hours to complete Firefighter II training. Completion of both Firefighter I and Firefighter II represents the required 360 hours referred to collectively hereinafter as the "Minimum Standards Course." The individual courses shall have the titles, content, and at least the minimum hours of instruction as prescribed by the Bureau of Fire Standards and Training in this rule. The completion of the Form DI4-1028 "Verification of Prescribed Training Hours" evidencing compliance with minimum curriculum requirements shall be presented to the Bureau of Fire Standards and Training Field Representative prior to the state certification examination for Firefighter II. Form DI4-1028 is incorporated by reference in subsection 69A-37.039(2), F.A.C., and can be obtained where indicated in subsection 69A-37.039(1), F.A.C. The school or employing agency is permitted to and is encouraged to, offer additional training above that training required by this chapter for firefighter recruit training.

(2) (a) Firefighter I Certification shall be obtained by successful completion of the required course work identified in this section. These courses shall be delivered by an Instructor approved by the Bureau of Fire Standards and Training and a score of 70% or more must be obtained on a written state examination delivered by the Bureau of Fire Standards and Training. These courses need not be delivered at a State Certified Training Center.

(b) Each applicant shall submit a completed Form DI4-1380 "Firefighter I Training Record," which is incorporated by reference in subsection 69A-37.039(2), F.A.C., and can be obtained where indicated in subsection 69A-37.039(1), F.A.C.

(3) Applicants failing the Firefighter I examination are permitted to retake the examination within a 6 month period. Retakes after that 6 month period require a new application for testing to be submitted to the Bureau of Fire Standards and Training.

(4) (a) Persons certified at the Firefighter I level are permitted to proceed directly into Firefighter II Training at a State Certified Training Center as openings are available.

(b) Firefighter I certified persons shall enter Firefighter II training at a State Certified Training Center within:

1. 1 year of certification at the Firefighter I level, or
2. 3 years of certification as a Firefighter I, if verifiable and continuous affiliation as a volunteer firefighter with an organized fire department is maintained.

(c) Failure to enter Firefighter II Training within the time frames specified in paragraph (b) shall result in such applicant being required to complete the Firefighter I training program again prior to entry into the Firefighter II program.

(5) Entry into the Firefighter II training program at any State Certified Training Center shall require the applicant to demonstrate proficiency in Firefighter I knowledge and tasks to the satisfaction of the Training Center unless the Firefighter I and Firefighter II Training are taking place contiguously or consecutively at the same training center as a single course of instruction.

(6) Firefighter I:

(a)1. Orientation, Apparatus and Equipment (6 1/2 hours lecture): The following elements shall be included in this section of training:

- a. Introduction;
- b. Florida Fire Chiefs Disaster Response Plan;

- c. Outline of training program;
- d. Student duties and responsibilities;
- e. Testing procedures;
- f. Familiarization with training facilities;
- g. Responsibilities of the training;
- h. Purpose and objectives of fire service;
- i. Fire department organizational structure;
- j. The firefighter's responsibilities in the community;
- k. History of the fire service;
- l. Higher education in the fire service;
- m. Study habits;
- n. Personnel policies of the school;
- o. Fire department terminology;
- p. Emergency driving;
- q. Objectives for Firefighter I and II in the NFPA Standard 1001, "Fire Fighter Professional Qualifications", 1997 edition;
- r. NFPA 1582, "Standard on Medical Requirements for Fire Fighters," 1997 edition;
- s. Rule Chapter 69A-37, F.A.C.;
- t. Section 633.30, and Sections 633.34 through 633.353, F.S.

2. NFPA Standard 1001, "Fire Fighter Professional Qualifications", 1997 edition, and NFPA 1582, "Standard on Medical Requirements for Fire Fighters", 2000 edition, are hereby adopted and incorporated by reference. Copies of the NFPA publications can be obtained from the National Fire Protection Association, Inc., 1 Batterymarch Park, Quincy, Massachusetts 02269-9101.

(b) Fire Behavior (3 1/2 hours lecture): The following elements shall be included in this section of training:

- 1. Principles of combustion and chemistry of fire;
- 2. Classes of fire and characteristics of combustibles;
- 3. Principles of fire control.

(c) Portable Extinguishers (2 1/2 hours lecture, 1 hour drill): The following elements shall be included in this section of training:

- 1. Types and classes;
- 2. Extinguishing agents;
- 3. Demonstrations and student drills.

(d) Personal Protective Equipment (7 hours lecture, 3 hours drill): The following elements shall be included in this section of training:

- 1. Types, use and care of firefighter protective clothing and equipment;
- 2. Types of protective breathing apparatus;
- 3. Limitations of each;
- 4. Practice drills and exercises.

(e) Ropes and Knots (4 hours lecture, 2 hours drill): The following elements shall be included in this section of training:

- 1. Rope construction, care and inspection;
- 2. Life safety rope;
- 3. Utility rope;
- 4. Bends, hitches and knots;
- 5. Methods of lashing; and
- 6. Hoisting tools and equipment.

(f) Water Supply (3 hours lecture, 2 hours drill): The following elements shall be included in this section of training:

- 1. Components of municipal water supply systems and rural water supply operations;
- 2. Fire hydrants.

(g) Ladders (4 1/2 hours lecture, 3 hours drill): The following elements shall be included in this section of training:

- 1. Parts, types, construction, maintenance, and testing of fire service ground ladders;

2. Pumper fire apparatus extension, roof and folding ladders;
  3. Handling, carrying and raising of ground ladders;
  4. Climbing and operating from ladders.
- (h) Hose (7 hours lecture, 3 hours drill): The following elements shall be included in this section of training:
1. Size, construction, care and testing of hose;
  2. Couplings, appliances and tools;
  3. Hose lays and procedures;
  4. Hose loads;
  5. Hose rolls;
  6. Hose load finishes;
  7. Hose evolutions.
- (i) Water Fire Streams (3 1/2 hours lecture, 2 hours drill): The following elements shall be included in this section of training:
1. Extinguishing properties of water;
  2. Types and size of fire streams;
  3. Nozzles;
  4. Introduction to hydraulics;
  5. Fire stream evolutions.
- (j) Fire Control (5 hours lecture, 3 hours drill): The following elements shall be included in this section of training:
1. Fire suppression techniques for Class A through D fires;
  2. Fire company tactics for:
    - a. Single-family dwellings;
    - b. High-rise structures;
    - c. Basement, vehicle, trash, rubbish and wildland fires;
  3. Fires and emergencies in confined enclosures;
  4. Fire suppression evolutions.
- (k) Automatic Sprinkler Systems (2 hours lecture): The following elements shall be included in this section of training:
1. Basics of automatic fire sprinkler systems;
  2. Standpipe systems;
  3. Control of water flow.
- (l) Forcible Entry (7 1/2 hours lecture, 3 hours drill): The following elements shall be included in this section of training:
1. Assessing situations requiring forcible entry;
  2. Forcible entry tools, proper care and usage;
  3. Specific techniques for forcing entry through doors, windows, walls, fences and floors.
- (m) Building Search and Victim Removal (4 1/2 hours lecture, 2 hours drill): The following elements shall be included in this section of training:
1. Difference between rescue and extrication;
  2. Primary and secondary search;
  3. Safety guidelines; victim removal.
- (n) Ventilation (4 hours lecture, 1 hour drill): The following elements shall be included in this section of training:
1. Review of fire behavior; situations requiring ventilation;
  2. Procedures for vertical, horizontal and forced ventilation.
- (o) Loss Control (4 1/2 hours lecture, 1 hour drill): The following elements shall be included in this section of training:
1. Salvage operations; types of salvage;
  2. Covers and equipment and their uses;
  3. Care and maintenance of salvage equipment; water chutes;
  4. Catchalls;
  5. Overhaul operations;
  6. Search for and extinguishing hidden fires;
  7. Protecting and preserving evidence.

(p) Building Construction (3 hours lecture): The following elements shall be included in this section of training:

1. The five basic types of building construction,
2. The effects of fire on common building materials;
3. Firefighter hazards directly related to building construction.

(q) Fire Prevention and Public Education (3 1/2 hours lecture, 1 hour drill): The following elements shall be included in this section of training:

1. Recognition of hazards;
2. Fire inspections, dwelling surveys, station tours and public fire education demonstrations;
3. Smoke detectors;
4. Stop, drop and roll;
5. Fire company inspection procedures;
6. Report writing;
7. School drill procedures, and
8. Educating the public on home fire safety.

(r) Firefighter Safety (3 1/2 hours lecture): The following elements shall be included in this section of training:

1. Physical fitness and health;
2. Fire ground safety;
3. Tool and equipment safety;
4. Electric generating and lighting equipment;
5. Apparatus safety;
6. Station safety;
7. Safety in training.

(s) Fire Alarms and Communications (4 hours lecture): The following elements shall be included in this section of training:

1. Fire alarm transmission;
2. Private and public alerting systems;
3. Radio procedures for fire department personnel.

(t)1. First Responder (20 hours lecture, 20 hours drill): The following elements shall be included in this section of training:

- a. Diagnostic signs and symptoms;
- b. Cardio-pulmonary resuscitation;
- c. Vehicle extraction; and
- d. Patient movement.

2. If an individual is currently certified as an emergency medical technician or paramedic or has taken a First Responder course he or she is exempt from this portion of the Minimum Standards Course. Documentation of certification or proof of training shall be submitted at the beginning of the Minimum Standards Course.

(u) Controlled Burning (2 hours drill): The following elements shall be included in this section of training: practice exercises in:

1. Fire control in structures;
2. Class "A" materials; and
3. Vehicles.

(v) Awareness Level Hazardous Materials (8 hours lecture): The following elements shall be included in this section of training:

1. Identification of hazardous materials and their potential dangers;
2. Personal safety precautions to be taken when functioning as a hazardous materials first responder;
3. The basic options, requirements and limitations of methods to control, contain, and confine the hazard.

Completion of the Firefighter I program does not constitute certification as a full-time, professional, or certified firefighter. No person is permitted to be employed as a paid full-time professional or certified firefighter unless that person has completed and passed the Minimum Standards Course and has received the Firefighter II certification.

(7) Firefighter II:

(a) Implementing an Incident Management System (2 1/2 hours lecture).

(b) Personal Protective Equipment (5 hours drill): The following elements shall be included in this section of training:

1. Use and care of protective breathing apparatus;
2. Limitations of each;
3. Practice drills and exercises.

(c) Ropes and Knots (6 hours drill): life safety rope; The following elements shall be included in this section of training:

1. Utility rope;
2. Bends, hitches and knots;
3. Methods of lashing; and
4. Hoisting tools and equipment.

(d) Ladders (12 hours drill): The following elements shall be included in this section of training:

1. Pumper fire apparatus extension, roof and folding ladders;
2. Handling, carrying and raising of ground ladders;
3. Climbing and operating from ladders.

(e) Hose (3 hours lecture, 16 hours drill): The following elements shall be included in this section of training:

1. Appliances and tools;
2. Hose lays and procedures;
3. Hose loads;
4. Hose rolls;
5. Hose load finishes;
6. Hose evolutions.

(f) Foam Fire Streams (5 hours lecture, 4 hours drill): The following elements shall be included in this section of training:

1. Extinguishing properties of foam;
2. Types and size of fire streams;
3. Nozzles;
4. Foam fire streams;
5. Fire stream evolutions.

(g) Fire Control (5 1/2 hours lecture, 16 hours drill): The following elements shall be included in this section of training:

1. Fire suppression techniques for Class A through D fires;
2. Fire company tactics for:
  - a. Single-family dwellings,
  - b. High-rise structures,
  - c. Basement, vehicle, trash, rubbish and wildland fires (wildland fire component must be 2 hours lecture);
3. Ignitable liquid and flammable gas control;
4. Fires and emergencies in confined enclosures;
5. Fire suppression evolutions.

(h) Automatic Sprinkler Systems (3 1/2 hours lecture): The following elements shall be included in this section of training:

1. Automatic fire sprinkler systems;
2. Standpipe systems;
3. Detection, alarm and suppression operations as they relate to standpipe and sprinkler systems.

(i) Forcible Entry (2 hours drill): The following elements shall be included in this section of training:

1. Assessing situations requiring forcible entry;
2. Forcible entry tools;
3. Specific techniques for forcing entry through doors, windows, walls, fences and floors.

- (j) Rescue and Extrication (15 hours lecture, 14 hours drill): The following elements shall be included in this section of training:
1. Assessment of situations requiring rescue or extrication;
  2. Tools and equipment used for rescue and extrication;
  3. Specific techniques for various rescue situations;
  4. Search procedures;
  5. Vehicle extrication.
- (k) Building Search and Victim Removal (4 hours drill): The following elements shall be included in this section of training:
1. Primary and secondary search;
  2. Safety guidelines;
  3. Victim removal.
- (l) Ventilation (4 hours drill): The following elements shall be included in this section of training:
1. Situations requiring ventilation;
  2. Procedures for vertical, horizontal, and forced ventilation.
- (m) Loss Control (4 hours drill): The following elements shall be included in this section of training:
1. Salvage operations;
  2. Covers and equipment and their uses;
  3. Care and maintenance of salvage equipment;
  4. Water chutes;
  5. Overhaul operations;
  6. Search for and extinguishing hidden fires;
  7. Protecting and preserving evidence.
- (n) Building Construction (2 1/2 hours lecture): The following elements shall be included in this section of training:
1. The five basic types of building construction;
  2. The effects of fire on common building materials;
  3. Firefighter hazards directly related to building construction;
  4. Construction materials and building collapse.
- (o) Fire Prevention and Public Education (3 hours lecture, 2 1/2 hours drill): The following elements shall be included in this section of training:
1. Recognition of hazards;
  2. Identification of detection and suppression system components;
  3. Pre-incident surveys;
  4. Fire inspections, fire company inspection procedures;
  5. Filling out reports and surveys.
- (p) Fire Cause Determination (3 hours lecture): The following elements shall be included in this section of training:
1. The firefighter's role;
  2. Securing the fire scene;
  3. Preserving evidence;
  4. Legal considerations.
- (q) Fire Alarms and Communications (2 1/2 hours lecture, 1 hour drill): The following elements shall be included in this section of training:
1. Fire alarm transmission;
  2. Private and public alerting systems;
  3. Radio procedures for fire department personnel;
  4. Incident reports.
- (r) Physical Fitness (8 hours): supervised exercises during training.
- (s) Examinations (12 hours): each portion of the outline shall be the subject of a test, both academic and performance, for best measure of learning.
- (t) Controlled Burning (16 hours drill): The following elements shall be included in this section of training: practice exercises in:

1. Fire control in structures;
2. Flammable liquids;
3. Liquefied petroleum or natural gas; and
4. Vehicles.

(u) Operations Level Hazardous Materials (16 hours lecture): The following elements shall be included in this section of training:

1. Identification of hazardous materials;
2. Personal safety precautions to be taken;
3. The basic options, requirements and limitations of methods to control, contain, and confine the hazard.

(v) Course Review (4 hours lecture, 8 hours drill).

Specific Authority 633.45(2)(a) FS. Law Implemented 633.45(1)(a), (b) FS. History—New 9-7-81, Formerly 4A-37.10, 4A-37.55, Amended