

Baccalaureate Degree Program Proposal
Recommendations from the Division of Florida Colleges Baccalaureate Review Team
for Consideration by the Commissioner of Education

A collaborative review was conducted by the Baccalaureate Review Team members, including staff from the Division of Florida Colleges; the Division of Accountability, Research, and Measurement; and the Florida College Budget Office. Written recommendations were submitted to the college by the Review Team, college staff revised the proposal, and submitted the final proposal, which is now complete and ready for consideration by the Commissioner of Education.

Questions or concerns should be directed to Patricia Frohe at (850) 245-9481 or patricia.frohe@fldoe.org.

College	Degree Type	Degree Program	Date Submitted to Commissioner
Florida State College at Jacksonville (FSCJ)	BS	Biomedical Sciences with concentrations in <ul style="list-style-type: none"> ○ Biological Sciences ○ Biochemistry <p><i>No alternative proposals were received for this program.</i></p>	11/23/10

“Within 45 days following receipt of a completed proposal by the Division of Florida Colleges, the Commissioner of Education shall recommend approval or disapproval of the proposal to the State Board of Education.”
Section 1007.33 (5)(e), F.S.

Criteria	Comments
A Planning Process A model for broad and thorough local collaboration, plus excellent joint planning with universities (public and private) in service area.	<p>Evidence of strong internal and external planning, research of need-demand. Excellent coordination with area universities and colleges (presidents and provosts), along with detailed documentation of collaboration. Collaboration in planning with workforce organizations and businesses including Region 8 WorkSource, Inc., the Biotechnology Advisory Committee, Mayo Clinic, the Health Department, health service companies, the Florida Medical Association, medical manufacturing companies, BioFlorida, and various research and biomedical related firms. (Supplemental Materials, pages 36 - 53, 58-69) The University of North Florida (UNF) and Jacksonville University (JU) have offered support and have indicated interest in collaborative efforts for internship opportunities and joint research projects for students. FSCJ, UNF, and JU will promote science, technology, engineering and mathematics (STEM) interest among students to impact the student pipeline to all institutions and enhance student preparation. Strong letters of support, beginning on page 85, from universities and colleges and medical organizations, industry, and city government.</p> <p>As a result of the reviews of similar programs in other institutions, FSCJ is focusing on producing graduates for direct entry into health sciences careers.</p> <p>The degree is designed to fill the gap for qualified workers with clinical skills and focuses on producing graduates for direct entry into health sciences careers with ability to staff analytical/research laboratories, clinical and environmental chemistry programs, pharmaceutical companies, medical manufacturing companies, research programs, health departments, zoos and museums. Student survey included (pages 54 - 57).</p>

B	Program Implementation Timeline	Cohesive plan for the program and an estimated implementation date of September 2011.
C	Workforce Demand/Unmet Need Specific to Program Area Well-documented unmet need.	Analysis of geographic region, with data. Agency for Workforce Innovation (AWI) data is cited for 65 current job openings for the degree in the region (with 325 openings projected over the next five years). With no degree of this type in the region, the current gap in the biomedical sciences field between available jobs and qualified graduates is at least 65 annually. FSCJ states that the University of South Florida (USF) offers the only biomedical sciences program in the state system with the same Classification of Instructional Programs (CIP) number. USF biomedical sciences graduates have increased within six years from 121 to 482. However, FSCJ states that AWI projects estimated job openings in Florida to be 1,113 annually leaving a state gap of 631.
D	Facilities and Equipment Specific to Program Area	Additional facilities and equipment are not required to support the proposed curriculum. The college has 46 laboratories that can accommodate over 1,100 students. All campuses and centers are equipped with wireless Internet with over 500 computers for student use in libraries, learning centers, and labs. Faculty offices are upgraded to meet current technology needs.
E	Library/Media Specific to Program Area Evidence of pre-planning.	Library/Learning Commons (LLC) staff have identified a substantial number of currently held print and electronic resources supportive of the BS in Biomedical Sciences. The college states that the LLC will need updated materials to provide students a more comprehensive array of materials related to the cellular and organismal aspects of the biomedical degree. Resources and materials selected to support the new degree will reflect the precision and thoroughness necessary for serious scientific study. Additional library resources have been budgeted and are detailed in Section I on page 28.
F	Academic Resources Specific to Program Area Exceeds Southern Association of Colleges and Schools-Commission on Colleges (SACS-COC) criteria for credentialed faculty.	25 of the current 28 faculty (89%) have doctorate degrees in this science field. four of six (67%) existing part-time faculty have a Ph.D. in field. It is unlikely that additional faculty will need to be hired to teach in the proposed program. As the program develops, a need might arise for adjunct faculty to teach special topics courses. The college states that the costs associated with these hires would be supported through the normal adjunct faculty budgets. Each campus has an existing lab manager to assist with lab preparation and material ordering.
G	Cost to Student	Estimated tuition and fees are \$11,348.40 for four years of study at FSCJ. UNF estimated cost is \$18,098.40, \$105,960.00 estimated for JU, and \$52,350.00 estimated for Edward Waters College.
H	Academic Content Evidence of good planning and preparation for this degree program.	The program prepares students for future careers in research, medical, or clinical lab settings or in any related health care organization and direct employment in the biomedical sciences. 85% of the classes will be taught by faculty holding the terminal degree. FSCJ included a page from the Common Prerequisites Manual for CIP 26.-0102, Biomedical Sciences, that USF currently offers. The college is following the extensive requirements already established for that program. Applicants must have earned an Associate in Science (AS) or Associate in Arts (AA) and completed at least 60 transferable college credits with a 2.0 grade point average (GPA) or higher, and students who have not taken the


		<p>prerequisites in the lower division must complete them prior to taking upper level classes.</p> <p>Student/teacher ratio is planned at 24:1 in the upper level of the degree program. The college was approved by SACS as a Level II institution in June 2008. Since the college has also been approved for a BS in Nursing program, they should not require a substantive change at this point. The program is established at 120 credit hours (121 for students choosing MAC 2313 instead of STA 2023), including 71 credits at the lower division and 49 credits at the upper division. There is an upper division core of courses totaling 35 credits; for each concentration, students must choose 14 credits. This total includes the 36 credits of General Education and the prerequisites.</p>
I	Enrollment, Performance, and Budget Plan	<p>Detailed plan of resources and expenditures through 2014-15. The college projects that the program will be self-supporting from the use of student fees and baccalaureate degree grants beginning in 2011-12, year one, and will not need to offset operational costs from the college's operating budget.</p> <p>In case of the absence of state funding, the college laid out a detailed plan that would include such measures as reducing operating costs during the first four years by relying on existing terminal-degreed faculty to teach classes and existing terminal-degreed administrators to manage the program. Other information about this issue is included on pages 30 and 31 of the proposal.</p>
J	Plan of Action if Program Must be Terminated	<p>The college has a three-step process for inactivating any program including an investigation process, a submission of a program initiation form, and a notification process. If it is determined necessary to still close the program after those three steps, then students are given no more than five years to complete the program at FSCJ. Or, students can transition to another appropriate program of study.</p>

Comments: Strong evidence that great care was taken in the research for and planning of this degree program. Exceptional collaboration with all stakeholders.

Recommend approval.

Executive Vice Chancellor, Division of Florida Colleges  Date 11/23/10

Comments:

Chancellor, Division of Florida Colleges  Date 11/23/10

THE FLORIDA COLLEGE SYSTEM

BACCALAUREATE PROPOSAL APPROVAL APPLICATION

COVER SHEET

INSTITUTION: Florida State College at Jacksonville

BACCALAUREATE DEGREE CONTACTS:

PRIMARY

Name: Dr. Steven R. Wallace
Title: College President
Phone: 904-632-3222
Email: Steven.Wallace@fscj.edu

SECONDARY

Name: Jim Simpson
Title: AVP of Workforce Development
Phone: 904-632-5049
Email: jsimpson@fscj.edu

DEGREE TYPE (BS, BAS, other): B.S.

DEGREE TITLE: Bachelor of Science in Biomedical Sciences with Concentrations in Biological Sciences and Biochemistry

TOTAL NUMBER OF CREDIT HOURS: 120

PROPOSED DEGREE SIX-DIGIT CIP CODE (And track, if appropriate): 26.0102

PLANNED PROGRAM IMPLEMENTATION DATE: September 2011

PROGRAM DESCRIPTION/EMPLOYMENT OPTIONS FOR GRADUATES:

The description should be brief, but stand-alone. The first sentence should include degree type, degree title, areas of concentration (if applicable), and geographic region to be served. (Limit 200 words)

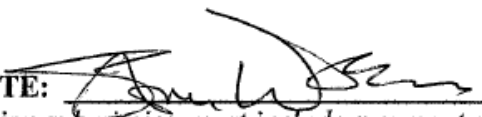
The Bachelor of Science in Biomedical Sciences Degree emphasizes concentrations in biological sciences and biochemistry, utilizes our institution's existing expertise and state-of-the-art molecular science teaching facilities, and serves the regional business/healthcare communities with whom the College has already developed close working relationships. The Florida State College at Jacksonville program differs from other local institutions in that the program prepares students for direct employment in biomedical sciences.

A baccalaureate degree in biomedical sciences from Florida State College at Jacksonville will cover areas necessary to prepare students for direct entry into health sciences, analytical/research laboratories and other medical support positions. This degree also prepares individuals for a variety of science-related positions in pharmaceutical sales, medical manufacturing, clinical and

environmental chemistry, laboratories, health departments, zoos and museums. The subjects covered include physics, chemistry, biology, microbiology, molecular biology and genetics with the upper-level electives defining a student's individual interests.

The College serves a broad range of students and affords each an academic experience that prepares the student to enter high-skill careers that are the most rapidly growing areas of employment within our region. This program will articulate with the College's existing biotechnology and analytical technician programs that support partnerships within the local business/healthcare communities.

BOARD OF TRUSTEES APPROVAL DATE: September 7, 2010

PRESIDENT'S SIGNATURE AND DATE:  **Date:** 10/15/10
Original application and subsequent revision submission must include a current signature/date.

EXECUTIVE SUMMARY

Institution: Florida State College at Jacksonville
Degree Type: Bachelor of Science
Degree Title: Bachelor of Science in Biomedical Sciences

A. Planning Process

Planning for the Biomedical Sciences Bachelors Degree program began in March 2009 and will be ongoing until program implementation in the fall of 2011. The internal planning began with a core group of senior administrators, faculty and program development staff who held a series of meetings to discuss curriculum, state benchmarks, research, marketing, community needs, student surveys and proposal development. The team reviewed similar programs at other institutions and determined that Florida State College at Jacksonville should focus on producing graduates for direct entry into health sciences careers with the ability to staff laboratories, clinical and environmental chemistry programs, pharmaceutical companies, medical manufacturing companies, research programs, health departments, zoos and museums. That strategic decision not only differentiates the Florida State College at Jacksonville program from other regional programs focused on post baccalaureate professional programs, but it also fills the gap for qualified workers with clinical skills. Section K contains documentation of internal meetings beginning on page 36.

The Biotech Advisory Committee with representatives from government agencies, medical manufacturing companies and other healthcare organizations was already in place for working with the College's A.S. degree program in Biotechnology (Section K, page 37). The president of Florida State College at Jacksonville consulted with the Chamber of Commerce and WorkSource to assess the employment climate for biomedical graduates. As a final step, a formal needs assessment survey of local employers conducted in January 2010 clearly illustrated the need for an expanded workforce in the health sciences industry for the Jacksonville area. A discussion of the assessment survey results begin on page 9 of Section C.

There are no regional colleges offering a biomedical sciences degree and the University of South Florida offers the only other biomedical sciences baccalaureate program in the state system. The president of Florida State College at Jacksonville initiated contact with the other regional educational institutions in the summer of 2009 leading to a meeting held on October 7, 2009, with representatives of both Jacksonville University (JU) and University of North Florida (UNF). Minutes of this meeting are in Section K on page 64. The major agenda item for this meeting was the proposed baccalaureate programs at Florida State College at Jacksonville – including the Biomedical Sciences degree. Both UNF and JU have offered support for the Biomedical Sciences program and have indicated interest in collaborative efforts for internship opportunities and joint research projects for students. Letters of support from UNF and JU as well as emails documenting their support are in Section K, pages 61-69, 86, and 87. The discussion of this degree program has sparked renewed interest in working together to promote S.T.E.M. (science, technology, engineering, mathematics) interest in students and to market career choices in the healthcare field.

B. Program Implementation Timeline

The timeline included in this document states a target start date for the Biomedical Sciences program and first upper division course offering dates for the fall of 2011.

C. Workforce Demand/Unmet Need for Specific Program Area:

The project development team analyzed the target geographic region of Workforce Region 8 and identified 65 annual openings for graduates with a degree in biomedical sciences or related studies. Although biology programs exist at some of the area educational institutions, no students graduated with a bachelor's degree in biomedical sciences at any schools in 2007-08. However, with ten major hospitals and healthcare centers and a rapidly growing number of businesses in the medical industry, employers report that there is a need for qualified graduates and that the projected demand for these graduates outweighs the current supply.

D. Facility and Equipment Specific to Program Area:

The College is well equipped to support the biomedical sciences degree program with 46 laboratories that can accommodate over 1,100 students. All campuses and centers are equipped with wireless Internet with over 500 computers available for student use in libraries, learning centers and labs. Upgraded faculty offices meet current technology needs, and over 300 "Smart" classrooms provide Internet access, a projector and a screen. A complete inventory of equipment related to the program is in Section K, page 80.

E. Library/Media Specific to Program Area:

All Florida State College at Jacksonville students have access to the Library and Learning Commons (LLC) at all campuses and centers. Offering individual and small group tutoring, traditional and virtual services and materials, a variety of workshops and access to tutorials, computers and multimedia technology, the LLC provides the bridge between classroom learning and successful degree completion. Updated materials are needed to provide students with a more comprehensive array of materials required for the full degree program. The purchase of additional library allocations including relevant databases is planned for all campus locations. A list of existing library resources specific to the program is in Section K beginning on page 70.

F. Academic Resources Specific to Program Area:

The College is committed to providing staff and resources required for a fully functional, quality program. A concerted effort has been made to hire faculty holding the terminal degree in field. The College is well positioned for launching this program and will only need to add adjunct faculty for special topics until the program grows.

G. Cost to Students:

With the cost per credit hour under \$100, Florida State College at Jacksonville is clearly the most cost effective route to a bachelor's degree in Northeast Florida. The projected cost for a full degree program in any of the sciences starts at \$11,348 for Florida State College at Jacksonville,

increases to just over \$18,000 for UNF and is much more costly at JU and EWC, the regional private colleges.

H. Academic Content:

The mission of the Biomedical Sciences program is to prepare students for future careers in research, medical, or clinical lab settings or in any related health care organization. Admission requirements are an A.A. or A.S. degree and letters of recommendation from current or prior employers.

Florida State College at Jacksonville faculty currently meet the established standard of a master's degree or higher in the discipline. As the College currently has 34 faculty members who are qualified to teach this program, 28 of who hold terminal degrees in field, it is estimated that 85% of the classes will be taught by faculty holding the terminal degree.

The proposed Bachelor of Science degree in Biomedical Sciences (CIP Code #26.0102) is a 120 credit hour, four-year degree program, which will be offered college wide. Students will complete 71 hours of core prerequisites and 35 hours in the upper division core with an additional 14 hours in one of the two concentration areas of Biological Sciences or Biochemistry. The program will be submitted for SACS approval in accordance with procedures outlined for all Florida State College at Jacksonville programs.

I. Enrollment, Performance and Budget Plan:

The College will begin to incur operational expenses beginning in 2011. Approximately 138 students are projected for 2011-12. Operational costs are projected at \$517,384 and costs will increase as the program grows. However, any additional costs will be offset by increased tuition. A total of \$366,000 is budgeted for library resources over the next four years. Florida State College at Jacksonville will fund these start up expenses from state baccalaureate degree grants and student fees. In the absence of state baccalaureate degree grants, the college would reduce the operating costs of the program by \$581,019 over four years by relying on existing terminal degreed faculty to teach classes and existing administrators to manage the program. The College would utilize student tuition, unrestricted fund balance, and operational cost savings to offset the costs of the program. The program is expected to become self-sufficient and generate a carry forward balance by the academic year 2012-13. The detailed budget is in Section K beginning on page 35.

J. Plan of Action if Program Must be Terminated:

Should the program be terminated, Florida State College at Jacksonville would stop accepting new students, phase out the program to maximize graduation opportunities and work with other local institutions to help students transition to other appropriate courses of study. The College will review the program on a regular basis to identify any problem areas and initiate corrective action to prevent this type of termination, if possible. However, a program inactivation plan developed by the College leadership is in place to notify faculty, staff and students of the options and process for degree completion at Florida State College at Jacksonville or elsewhere.



OFFICE OF THE PRESIDENT
John A. Delaney

UNIVERSITY *of*
NORTH FLORIDA

May 5, 2010

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

Dear Dr. Wallace:

Allow me to offer the University of North Florida's support for Florida State College at Jacksonville's proposed Bachelor of Science in Biomedical Sciences.

While the University of North Florida does offer a Bachelor of Science in Biology with a biomedical sciences track, we recognize the additional need for the program your institution intends to offer. A bachelor's program offering a variety of course delivery methods and flexible schedules will be of great benefit to many Jacksonville residents who desire to begin careers that respond to a number of local needs.

We hope that future graduates of this program who seek to continue their education beyond the bachelor's level will consider master's level degree programs at UNF.

Sincerely,

John A. Delaney
President

May 12, 2010

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

Dear Dr. Wallace:

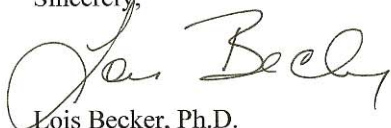
As the Senior Vice President for Academic Affairs at Jacksonville University, I am writing to convey our support of Florida State College at Jacksonville's proposed Bachelor of Science Degree in Biomedical Science.

Graduates of this degree will be prepared to enter careers in science and research as well as continue in advanced post baccalaureate programs. The proposed degree program will give students the specialized skills needed to be successful in the life sciences industry. Florida State College at Jacksonville is well suited to develop this program by using their existing state-of-the-art sciences facilities and drawing on well-developed working relationships within the local business and medical communities.

Florida State College at Jacksonville continues to meet the needs of the community by increasing access to a degree program that will benefit residents and employers in Workforce Region 8.

We wish you much success in this endeavor.

Sincerely,



Lois Becker, Ph.D.
Senior Vice President for Academic Affairs



ST. JOHNS RIVER COMMUNITY COLLEGE
FLORIDA SCHOOL OF THE ARTS
CLAY, PUTNAM AND ST. JOHNS COUNTIES COOPERATING

November 2, 2009

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

Dear Dr. Wallace:

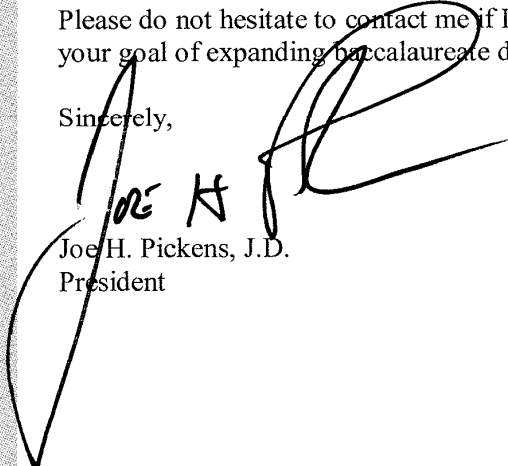
This letter is in support of your proposed baccalaureate programs in Business Administration, Converged Communications/Media and Biomedical Sciences.

As a fellow member of the Florida College System, St. Johns River Community College recognizes the vital role that colleges like ours play in educating the workforce in Florida. All your proposed degrees are workforce programs that address economic needs within your region. In addition, the current economic climate has increased the educational demands for such degrees as many students are looking to change careers or become more competitive in the job market.

These degree programs further the goals of the Florida College System in enhancing the availability of accessible and affordable four-year degree options. SJRCC fully supports your efforts to expand baccalaureate opportunities to the residents of your district, especially those which have been crafted with the working adult in mind. Statewide, Florida is not producing the number of baccalaureate degrees it requires to be truly competitive, and your endeavors will aid the entire State.

Please do not hesitate to contact me if I can do anything further to support you in your goal of expanding baccalaureate degree access to the citizens of Florida.

Sincerely,



Joe H. Pickens, J.D.
President

JOE H. PICKENS, J.D.
PRESIDENT

REPLY TO:
PALATKA CAMPUS
5001 ST. JOHNS AVENUE
PALATKA, FLORIDA
32177-3397
PHONE: (386) 312-4113
SUNCOM: 890-4113
FAX: (386) 312-4229
E-MAIL:
Joepickens@sjrcc.edu

ORANGE PARK CAMPUS
283 COLLEGE DRIVE
ORANGE PARK, FLORIDA
32065-7650
PHONE: (904) 276-6800

ST. AUGUSTINE CAMPUS
2990 COLLEGE DRIVE
ST. AUGUSTINE, FLORIDA
32084-1197
PHONE: (904) 808-7400

WEBSITE:
www.sjrcc.edu

EDWARD WATERS COLLEGE



Office of the President

August 31, 2010

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

Dear Dr. Wallace:

I am writing on behalf of Edward Waters College to express our support of Florida State College at Jacksonville's proposed Bachelor of Science degree in Biomedical Sciences.

The proposed degree is another example of Florida State College at Jacksonville's commitment to addressing the needs of the non-traditional student and our local economy. A variety of educational programs in the life sciences is needed to provide highly skilled employees for Northeast Florida's well-established health care sector. This degree program will prepare students to enter careers in science and research or to continue their education in post baccalaureate degree programs.

We wish you much success in this endeavor.

Sincerely,

A handwritten signature in black ink, appearing to read "Nathaniel Glover".

Nathaniel Glover
Interim President



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