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FLORIDA DEPARTMENT OF EDUCATION
fldoe.org

BACCALAUREATE PROPOSAL APPLICATION Form No. BAAC-02
Section 1007.33(5)(d), Florida Statutes (F.S.), and Rule 6A-14.095, Florida Administrative Code (F.A.C.), outline the requirements for Florida College System baccalaureate program proposals. The completed proposal form, incorporated in Rule 6A-14.095, F.A.C., Site Determined Baccalaureate Access, shall be submitted by the college president to the chancellor of the Florida College System at ChancellorFCS@fldoe.org.

CHECKLIST
The proposal requires completion of the following components: ☒Institution Information ☒Program summary ☒Program description ☒Workforce demand, supply, and unmet need ☒Student costs: tuition and fees ☒Enrollment projections and funding requirements ☒Planning process ☒Program implementation timeline ☒Facilities and equipment specific to program area ☒Library and media specific to program area ☒Academic content ☒Program termination ☒Supplemental materials

FLORIDA COLLEGE SYSTEM INSTITUTION INFORMATION	
Institution Name.	**St. Johns River State College**
Institution President.	**Joe Pickens, J.D**

PROGRAM SUMMARY		
1.1	Program name.	**Bachelor of Science in Biological Sciences**
1.2	Degree type.	☒Bachelor of Science ☐Bachelor of Applied Science
1.3	How will the proposed degree program be delivered? (check all that apply).	☐Face-to-face (F2F) (Entire degree program delivered via F2F courses only) ☐Completely online (Entire degree program delivered via online courses only) ☒Combination of face-to-face/online (Entire degree program delivered via a combination of F2F and online courses)
1.4	Degree Classification of Instructional Program (CIP) code (6-Digit).	**26.0101**
1.5	Anticipated program implementation date.	**August 2025**
1.6	What are the primary pathways for admission to the program? Check all that apply.	☒Associate in Arts (AA) ☐Associate in Science (AS) ☐Associate in Applied Science (AAS) If you selected AS/AAS, please specify the program:
1.7	Is the degree program a STEM focus area?	☒Yes ☐No
1.8	List program concentration(s) or track(s) (if applicable).	**NA**

PROGRAM DESCRIPTION

*2.1 This section will serve as an **executive summary of this proposal**. We recommend providing an abbreviated program description including but not limited to: the program demand, current supply, and unmet need in the college's service district; primary pathways to program admission; overview of program curriculum; career path and potential employment opportunities; and average starting salary. Throughout the proposal, please include in-text references to the supplemental materials for reviewers to reference. We encourage approximately 500 words for a sufficient description.*

St. Johns River State College's proposed Bachelor of Science degree in Biological Sciences has been designed in response to the increasing local demand for baccalaureate-level graduates from programs in biology, and it will provide students with the skills and credentials required to enter the workforce or pursue graduate studies. Embedded within the program will be the Biotechnician Assistant Credentialing Exam (BACE) which leads to the industry-recognized CAPE Biotechnician Assistant certification.

The workforce demand for professionals trained in the field of biology is currently not being met, and this gap is projected to continue to grow both within our local region and nationwide. In the College's three-county service district of Clay, Putnam, and St. Johns Counties, there is currently no higher education institution supplying graduates in this field. The Florida Department of Commerce (Florida Commerce) projects that the total job growth in occupations directly related to the Biological Sciences degree will increase by 9% from 2024 to 2032, the estimated annual unmet need of graduates will be more than 20, and these jobs will have an average salary ranging between $46,000 and $104,000 per year (Table 3.1.1). Expanding the scope of analysis to all of Region 8, the Florida Commerce projects more than 80 annual job openings (Table 3.1.1b).

This BS in Biological Sciences will provide students the knowledge and skills needed to go straight into the workforce or pursue a graduate program. The degree's curriculum will prepare students for entry into a variety of fields including Biological Scientists and Technicians, Natural Science Managers, Food and Forensic Science Technicians, and other careers requiring a high level of technical skill. Additionally, the curriculum will be aligned to articulate into local graduate programs in biology, physical therapy, and physician assistant.

The BS degree will require a total of 120 semester credits and be a 2+2 program articulating from the Associate in Arts (AA) degree. All applicants will be required to have an earned AA degree prior to admission to include a total of 36 credits of general education coursework and 24 baccalaureate prerequisite and elective credits. The required prerequisite coursework will align with Florida's Common Prerequisite Manual and will be completed prior to sequential coursework.

After admission into the Bachelor of Science in Biological Sciences, students will be required to complete a total of 60 credits distributed as follows: 20 credits of lower-division core courses, 25 credits of upper-division core courses, and 15 credits of upper-division elective courses.

All upper- and lower-division courses and course content will comply with Florida Statutes and Florida State Board of Education Rule.

As part of the initial exploration of potential baccalaureate degree expansion, SJR State surveyed interested community members and current, future, and former SJR State students to determine their career and educational interests. In addition to focusing on local, regional, and state employment data and trends, SJR State has also engaged with partners in business and industry to ensure that the proposed curriculum is in alignment with and will meet the needs of Clay, Putnam, and St. Johns Counties. St. Johns River State College's baccalaureate in Biological Sciences is being proposed in response to this feedback and the documented gap between the projected number of open positions and the number of baccalaureate graduates being produced within our service district and region.

WORKFORCE DEMAND, SUPPLY, AND UNMET NEED

3.1 Describe the workforce demand, supply, and unmet need for graduates of the program that incorporates, at a minimum, the shaded information from Sections 3.1.1 to 3.1.4. For proposed programs without a listed Standard Occupational Classification (SOC) linkage, provide a rationale for the identified SOC code(s). If using a SOC that is not on the CIP to SOC crosswalk, please justify why the SOC aligns with the baccalaureate program.

Graduates of St. Johns River State College's Bachelor of Science in Biological Sciences degree will be prepared for a wide range of in-demand careers that currently have significant unmet need. This degree will prepare graduates specifically for employment as Biological Scientists, Biological Technicians, Natural Science Managers, Food Science Technicians, and Forensic Science Technicians. Average annual earnings for biological sciences baccalaureate graduates working in these fields ranges between $46,000 and $104,000 (see Tables 3.1.1 and 3.1.1b).

The Departments of Health and the public utilities departments, the Whitney Laboratory, Encore Research Group, GreenWater Labs, the Florida Department of Environmental Protection, the Mayo Clinic and other local hospital systems, Lapcorp, the Florida Park Service, Johnson & Johnson, Pfizer, and the St. Johns River Water Management District are just a few of the potential employers in our region that will pursue graduates of this proposed degree.

It is important to note that although this proposed baccalaureate degree is being designed for the residents and employers of the College's tri-county service district, Clay, Putnam, and St. Johns Counties serve as "bedroom communities" for the greater Jacksonville area of Workforce Region 8, and residents of these counties generally anticipate pursuing job opportunities outside of their home county. Furthermore, employers in the greater Jacksonville area count on the residents of Clay, Putnam, and St. Johns Counties to fill vacancies within their organizations. For these reasons, the scope of analysis within this proposal has been broadened beyond SJR State's tri-county service district to include all of Workforce Region 8.

While Florida Commerce does project both employment growth and unmet need within the field of biology, the Florida Commerce data does not paint the full picture of the need for graduates in this field. The degree being proposed by SJR State includes coursework in both the physical and biological sciences, and this diversity of coursework will provide students with the foundation for jobs outside of a strict CIP to SOC crosswalk. Coursework and lab experiences in biology, chemistry, ecology, botany, and evolutionary biology will qualify students for additional employment opportunities as well.

A healthy workforce outlook with growth of over 6% statewide between 2024 and 2032 is projected for careers in these occupations, and even greater need is projected within the College's local service district. While Florida Commerce data indicates a projected annual

growth of 9% and 21 annual job openings in SJR State's three-county service district (Table 3.1.1), an additional 68 annual job openings are projected by the Florida Commerce in Baker, Bradford, and Duval counties for a total of 89 annual job openings within the six-county Workforce Region 8 (Table 3.1.1b).

Within SJR State's service district of Clay, Putnam, and St. Johns Counties, there is currently no supplier of graduates in this field. There are no public universities in the service district and the one private university (Flagler College) does not offer a baccalaureate degree with concentration in this area.

As tables 3.1.1, 3.1.1b, 3.1.3, and 3.1.4 illustrate, the supply of graduates of programs in the field of Biological Sciences is not meeting the demand of the local workforce, resulting in an annual unmet need of more than 20 graduates in Clay, Putnam, and St. Johns Counties and a gap of nearly 90 graduates throughout all of Region 8.

DEMAND: FLORIDA DEPARTMENT OF ECONOMIC OPPORTUNITY (DEO) EMPLOYMENT PROJECTIONS

SJR STATE SERVICE DISTRICT

3.1.1 The Excel spreadsheet below is set up with predefined formulas. To activate the spreadsheet, right click within the spreadsheet, go to "Worksheet Object", and then "Open". To exit, save any changes and exit out of the spreadsheet. Alternatively, double click anywhere on the table. To exit the spreadsheet, single click anywhere outside of the table.

Occupation			Number of Jobs				Salary		Education Level	
Name/Title	SOC Code	County/ Region	2024	2032	Level Change	Total Job Openings	Average Hourly Wage	Annualized Salary	FL	BLS
Natural Science Managers	11-9121.	Clay, Putnam, St. Johns	86	95	10.47	58	50.39	$ 104,811	B	B
Biological Scientists, All Other	19-1029	Clay, Putnam, St. Johns	39	38	-2.56	21	25.00	$ 52,000	B	B
Food Science Technicians	19-4013	Clay, Putnam, St. Johns	22	23	4.55	25	35.88	$ 74,630	A	A
Biological Technicians	19-4021	Clay, Putnam, St. Johns	28	30	7.14	30	22.24	$ 46,259	B	B
Forensic Science Technicians	19-4092	Clay, Putnam, St. Johns	38	27	-28.95	35	25.22	$ 52,458	B	B
								$ -		
								$ -		
								$ -		
								$ -		
								$ -		
					Total	21	$ 31.75	$ 66,032		

DEMAND: FLORIDA DEPARTMENT OF ECONOMIC OPPORTUNITY (DEO) EMPLOYMENT PROJECTIONS REGION 8
3.1.1b The Excel spreadsheet below is set up with predefined formulas. To activate the spreadsheet, right click within the spreadsheet, go to "Worksheet Object", and then "Open". To exit, save any changes and exit out of the spreadsheet. Alternatively, double click anywhere on the table. To exit the spreadsheet, single click anywhere outside of the table.

Occupation			Number of Jobs				Salary		Education Level	
Name/Title	SOC Code	County/ Region	2024	2032	Level Change	Total Job Openings	Average Hourly Wage	Annualized Salary	FL	BLS
Natural Science Managers	11-9121.	Clay, Putnam, St. Johns	86	95	10.47	58	50.39	$ 104,811	B	B
Biological Scientists, All Other	19-1029	Clay, Putnam, St. Johns	39	38	-2.56	21	25.00	$ 52,000	B	B
Food Science Technicians	19-4013	Clay, Putnam, St. Johns	22	23	4.55	25	35.88	$ 74,630	A	A
Biological Technicians	19-4021	Clay, Putnam, St. Johns	28	30	7.14	30	22.24	$ 46,259	B	B
Forensic Science Technicians	19-4092	Clay, Putnam, St. Johns	38	27	-28.95	35	25.22	$ 52,458	B	B
Natural Science Managers	11-9121.	Baker, Duval, Nassau	268	285	6.34	169	$ 50.39	$ 104,811	B	B
Biological Scientists, All Other	19-1029	Baker, Duval, Nassau	149	156	4.70	95	$ 25.00	$ 52,000	B	B
Food Science Technicians	19-4013	Baker, Duval, Nassau	91	93	2.20	100	$ 35.88	$ 74,630	A	A
Biological Technicians	19-4021	Baker, Duval, Nassau	93	101	8.60	103	$ 22.24	$ 46,259	B	B
Forensic Science Technicians	19-4092	Baker, Duval, Nassau	74	75	1.35	73	$ 25.22	$ 52,458	B	B
					Total	89	$ 31.75	$ 66,032		

DEMAND: OTHER ENTITY INDEPENDENT OF THE COLLEGE – (LIST NAME OF OTHER ENTITY HERE)

3.1.2 The Excel spreadsheet below is set up with predefined formulas. To activate the spreadsheet, right click within the spreadsheet, go to "Worksheet Object", and then "Open". To exit, save any changes and exit out of the spreadsheet. Alternatively, double click anywhere on the table. To exit the spreadsheet, single click anywhere outside of the table.

Occupation			**Number of Jobs**				**Salary**		**Education Level**	
Name/Title	SOC Code	County/ Region	*Base Year	*Projected Year	Level Change	Total Job Openings	Average Hourly Wage	Annualized Salary	FL	BLS
								$ -		
								$ -		
								$ -		
								$ -		
								$ -		
								$ -		
								$ -		
								$ -		
								$ -		
								$ -		
					Total	0				

*Please replace the "Base Year" and "Projected Year" headers with the corresponding years reported.

SUPPLY: NATIONAL CENTER FOR EDUCATION STATISTICS, IPEDS DATA CENTER

3.1.3 The Excel spreadsheet below is set up with predefined formulas. To activate the spreadsheet, right click within the spreadsheet, go to "Worksheet Object", and then "Open". To exit, save any changes and exit out of the spreadsheet. Alternatively, double click anywhere on the table. To exit the spreadsheet, single click anywhere outside of the table.

Program		**Number of Degrees Awarded**					
Institution Name	CIP Code	2023-2024	2022-2023	2021-2022	2020-2021	2019-2020	5-year average or average of years available if less than 5-years
The SJR State service district does not have an institution that awards a bachelors degree in Biological Sciences	26.0101	0	0	0	0	0	0
	Total	0	0	0	0	0	0

ESTIMATES OF UNMET NEED

3.1.4 The Excel spreadsheet below is set up with predefined formulas. To activate the spreadsheet, right click within the spreadsheet, go to "Worksheet Object", and then "Open". To exit, save any changes and exit out of the spreadsheet. Alternatively, double click anywhere on the table. To exit the spreadsheet, single click anywhere outside of the table.

	Demand	Supply		Range of Estimated Unmet	
	(A)	(B)	(C)	(A-B)	(A-C)
	Total Job Openings	Most Recent Year	5-year average or average of years available if less than 5 years	Difference	Difference
DEO Service District Total	21	0	0	**21**	**21**
DEO Baker, Duval, Nassau Total	68	0	0	**68**	**68**

3.2 Describe any other evidence of workforce demand and unmet need for graduates as selected by the institution, which may include qualitative or quantitative data and information not reflected in the data presented in Sections 3.1.1 to 3.1.4, such as local economic development initiatives, emerging industries in the area, or evidence of rapid growth.

Northeast Florida is presently ranked as one of the top five job markets in the nation, generating 5,300 new jobs with almost 4.1 billion dollars in private investment capital (JAXUSA Biennial Report). Specific to this proposed degree, the demand for biology majors is on the rise, creating a significant unmet need in the region. This growing demand is attributed to several factors that underscore the need for individuals with a background in biology to address specific challenges and opportunities unique to the area.

One of the factors impacting the growing demand for biology majors is that Northeast Florida is home to diverse ecosystems, including coastal habitats, wetlands, and unique flora and fauna (UF IFAS Extension Florida's Environment-Northeast Region). The preservation and conservation of these ecosystems requires skilled professionals who understand the intricate relationships within the environment. Biology majors play a crucial role in studying and protecting the region's biodiversity, ensuring the sustainability of natural resources for future generations.

Furthermore, the healthcare industry in Northeast Florida is expanding rapidly, contributing to the increasing demand for biology majors (JAXUSA Life Sciences Business Case Study). As the region experiences population growth, there is a parallel need for healthcare professionals and researchers who can address public health issues, conduct cutting-edge medical research, and contribute to advancements in biotechnology.

The proximity of Northeast Florida to various research institutions, pharmaceutical companies, and medical facilities also adds to the demand for skilled biology graduates (JAXUSA Life Sciences Industry Report). Collaborations between academia and industry are flourishing, creating opportunities for biology majors to engage in groundbreaking research, drug development, and biotechnological innovations.

Although this baccalaureate degree will not be an approved State of Florida Initial Teacher Certification program, students will have the option to select as their electives 15-credits of upper-level education coursework that meets the curricular requirements for alternative teacher certification in Florida as specified in State Board of Education Rule 6A4.006. A non-education bachelors degree graduate hired as a teacher in Florida will receive a five-year nonrenewable temporary teaching certificate. Upgrading this temporary certificate to a professional certificate requires completing one-year of full-time teaching experience in an elementary or secondary school, earning a passing score on all portions of the Florida Teacher Certification Exam, and satisfying the educational training requirements of professional preparation. One of the pathways for completing the educational training requirement is earning fifteen (15) hours in college credit education courses. Six (6) required professional education curricular areas are specified in State Board of Education Rule 6A4.006, one of which can be met during the AA through completion of

either DEP2004 Human Growth and Development or EDP2002 Educational Psychology. Alternatively, after completing one-year of full-time teaching, applicants may choose to waive one of the curricular areas, resulting in a total of fifteen required college credits (please see "Additional Comment" on page 2 of Appendix 21 Florida Department of Education Statement of Eligibility).

Including teacher preparation coursework that meets the alternative teacher certification requirements as an option within the credits of the baccalaureate degree is intended to provide students with exposure to teaching as a potential career path and provide these students with the confidence and skills necessary to succeed as teachers in their own classrooms, all without accumulating excess hours or enrollment in alternative teacher certification coursework after baccalaureate graduation. St. Johns River State College's Department of Teacher Education has a long history of successfully supporting students who choose alternative teacher certification, and the department stands ready to support students who choose these elective courses as their pathway to teacher certification.

There is a well-documented need for creating a teacher pipeline through alternative teacher certification in Florida. Given that Florida's public school system is the 4th largest school system in the United States with more than 4,000 public schools enrolling almost 3 million students each year (FLDOE Teaching Recruitment), the existing critical shortage of qualified teachers in Florida, and public school enrollment in Florida projected to increase by nearly 5% over the next ten years (NCES 203.20), the job outlook for public school teachers is predicted to continue to increase. Furthermore, Section 1012.07, Florida Statutes, requires the State Board of Education to annually identify critical teacher shortages areas based on the recommendation of the Commissioner of Education. Annually, the Florida Department of Education publishes this in the document "Identification of High Demand Teacher Needs Areas," and for the 2024-2025 academic year, the subject area "Science—General" is ranked second of all subjects in terms of need, while "Science—Physical" is ranked 5th and "Science—Earth & Space" is ranked 7th.

It is important to note that not all students in the Bachelor of Science in Biological Science degree will be interested in a career as an educator or select the education courses as their 15 hours of electives, and this demand for teachers has, therefore, not been included in Tables 3.1.1-3.1.4 of this proposal. However, conversation with leadership of the Clay, Putnam, and St. Johns County School Districts regarding these potential degree paths has already taken place, and all have endorsed this pathway as a promising practice to help address the unmet need for qualified teachers both within SJR State's service district and across the region and state.

3.3 If the education level for the occupation identified by the Florida Department of Economic Opportunity (DEO) or the Bureau of Labor Statistics (BLS) presented in Sections 3.1.1 to 3.1.2 is below or above the level of a baccalaureate degree, provide justification for the inclusion of that occupation in the analysis.

While the majority of the occupations cited in the Florida Commerce demand section of this proposal require a baccalaureate degree, one (Food Science Technicians) requires an associate degree. However, analysis of job postings within the College's service district and Region 8 reveals a preference for baccalaureate graduates as an entry requirement, and for promotion within the profession a baccalaureate degree is generally required due to it providing a broader knowledge base for independent decision-making and problem solving, exceptional communication and analytical skills, and efficient technology skills. In addition, SJR State's baccalaureate courses will be offered with non-traditional students in mind, and after completing their associates degree, students may choose to enter the profession as Food Science Technicians while enrolled in baccalaureate courses. Relevant work experience in this field will provide these students an advantage as they begin the post-baccalaureate-graduation employment search. Furthermore, excluding Food Science Technicians from this analysis does not significantly impact the unmet need for graduates in this area.

In addition to occupations that require a bachelor degree or less, there are also occupations that require education above the level of a baccalaureate degree that will be of potential interest to candidates for this proposed degree in Biological Sciences. Because these occupations require post-baccalaureate, graduate-level studies, the occupations have not been included in this analysis. However, graduates of this degree will be prepared for and eligible to continue their study to prepare for professions such as Epidemiologist, Physician, Physical Therapist, and Physician Assistant, and St. Johns River State College has, therefore, begun the process of establishing articulation agreements with both public and private universities within and nearby the College's service district (see Sections 9.3.2 and 9.3.3).

3.4 Describe the career path and potential employment opportunities for graduates of the program.

The career paths and potential employment opportunities for graduates of St. Johns River State College's Biological Sciences baccalaureate degree will encompass a myriad of professions within biology and related fields.

In accordance with Florida Statute and Florida Department of Education State Board Rule, St. Johns River State College's baccalaureate degrees are all 2 + 2 degrees, and students in this proposed baccalaureate program must, therefore, first earn their Associate in Arts (AA) degree. Students will be able to begin their academic program as early as high school by enrolling in general education courses that lead towards the AA degree through dual enrollment. Simultaneous to pursuing their associate degree, students will be able to begin their career path in entry-level occupations in the field that require some postsecondary credit or an associate degree such as Food Science Technician. During their second year of study, as part of the course BSC3464 Biotechnology, students will take the Biotechnician Assistant Credentialing Exam (BACE) and be eligible to earn the industry-recognized CAPE Biotechnician Assistant certification prior to graduation, making them more competitive in the job market.

Course offerings at both the Associate and Baccalaureate level will be designed to accommodate traditional as well as nontraditional students, and many will be scheduled in the evenings and online, enabling students to hold entry-level positions in the field while simultaneously pursuing their baccalaureate degree.

With their earned baccalaureate degree, graduates will be prepared to competitively enter the workforce in a variety of positions and career paths including Biological Scientists, Biological Technicians, Natural Science Managers, Food Science Technicians, and Forensic Science Technicians. Their degree coupled with experience working in the field will also support their promotion into positions with greater scope and leadership.

In addition to preparing students for employment, this baccalaureate degree will prepare students who wish to pursue graduate study for transfer into Master's and other graduate programs in Biology and other sciences. Upon completion of these graduate programs, additional career paths and employment opportunities will be available. The creation of a seamless pathway into graduate studies via articulation to neighboring universities has already begun (see Sections 9.3.2 and 9.3.3).

STUDENT COSTS: TUITION AND FEES

4.1 The Excel spreadsheets in Sections 4.1 - 4.3 are set up with predefined formulas. To activate the spreadsheet, right click within the spreadsheet, go to "Worksheet Object", and then "Open". To exit, save any changes and exit out of the spreadsheet. Alternatively, double click anywhere on the table. To exit the spreadsheet, single click anywhere outside of the table.

Complete the following table by entering the anticipated cost for a baccalaureate degree (tuition and fees for lower-division and upper-division credit hours) at the proposing FCS institution.

Tuition & Fees for lower division:	$	108.00	80	$ 8,640
Tuition & Fees for upper division:	$	124.75	40	$ 4,990
Tuition & Fees (Total):			120	$ 13,630

☐ Select if the program will be designated such that an eligible student will be able to complete the program for a total cost of no more than $10,000 in tuition and fees. If selected, please indicate below how the institution will make up any difference above $10,000 (e.g., institutional scholarships).

4.2 Complete the following table with the estimated cost for a baccalaureate degree (tuition and fees) at each state university in the college's service district or at each state university operating on a site in the college's service district. If the institution does not provide the tuition cost per credit hour, please provide the cost information provided on the institution's website. Please complete this section even if institutions in the service district do not offer the same or a comparable baccalaureate program.

NOTE: SJR State is the only public postsecondary institution in its service district. This list includes all public Region 8 institutions.

Institution Name	Cost per credit hour (Tuition & Fees)	Number of credit hours	Total cost
N/A			$ -
			$ -
			$ -
			$ -
			$ -

4.3 Complete the following table with the estimated cost for a baccalaureate degree (tuition and fees) at each nonpublic institution in the college's service district or at each nonpublic institution operating on a site in the college's service district. If the institution does not provide the tuition cost per credit hour, please provide the cost information provided on the institution's website. Please complete this section even if institutions in the service district do not offer the same or a comparable baccalaureate program.

NOTE: Flagler College is the only non-public postsecondary institution in SJR State's service district. This list includes all non-public Region 8 institutions.

Institution Name	Cost per credit hour (Tuition & Fees)	Number of credit hours	Total cost
			$ -
Flagler College	$ 890.00	120	$ 106,800
			$ -
			$ -
			$ -

PROJECTED BACCALAUREATE PROGRAM ENROLLMENT

5.1 To activate the Excel spreadsheet, right click within the spreadsheet, go to "Worksheet Object", and then "Open". To exit, save any changes and exit out of the spreadsheet. Alternatively, double click anywhere on the table. To exit the spreadsheet, single click anywhere outside of the table.

Complete the following table by entering the projected enrollment information for the first four years of program implementation. Unduplicated headcount enrollment refers to the actual number of students enrolled. Full-time equivalent (FTE) refers to the full-time equivalent of student enrollment.

		Year 1	Year 2	Year 3	Year 4
5.2	Unduplicated headcount enrollment:	12	28	41	49
5.3	Program Student Credit Hours (Resident)	360	840	1230	1470
5.4	Program Student Credit Hours (Non-resident)				
5.5	Program FTE - Resident (Hours divided by 30)	12	28	41	49
5.6	Program FTE - Non-resident (Hours divided by 30)	0	0	0	0
5.7	Total Program FTE	12	28	41	49

PROJECTED DEGREES AND WORKFORCE OUTCOMES

6.1 The Excel spreadsheet below is set up with predefined formulas. To activate the spreadsheet, right click within the spreadsheet, go to "Worksheet Object", and then "Open". To exit, save any changes and exit out of the spreadsheet. Alternatively, double click anywhere on the table. To exit the spreadsheet, single click anywhere outside of the table.

Complete the following table by entering the projected number of degrees awarded, the projected number of graduates employed, and the projected average starting salary for program graduates for the first four years of program implementation. Please note the "Year 1" column in the "Count of Degrees Awarded" row (6.2) is not likely to have any graduates taking into account length of time to degree completion.

		Year 1	Year 2	Year 3	Year 4
6.2	Count of Degrees Awarded	0	8	16	21
6.3	Number of Graduates Employed	0	7	14	14
6.4	Average Starting Salary	N/A	$50,000	$50,000	$50,000

REVENUES AND EXPENDITURES

7.1 The Excel spreadsheet below is set up with predefined formulas. To activate the spreadsheet, right click within the spreadsheet, go to "Worksheet Object", and then "Open". To exit, save any changes and exit out of the spreadsheet. Alternatively, double click anywhere on the table. To exit the spreadsheet, single click anywhere outside of the table.

Complete the following table by entering the projected program expenditures and revenue sources for the first four years of program implementation.

	2025-2026	2026-2027	2027-2028	2028-2029
Program Expenditures:	$ 61,722.00	$ 80,226.00	$ 142,108.00	$ 152,500.00
Instructional Expenses	$19,222	$75,226	$137,108	$147,500
Operating Expenses	$2,500	$5,000	$5,000	$5,000
Capital Outlay	$40,000	$0	$0	$0
Revenue:	$62,101	$100,569	$147,262	$176,014
Upper Level - Resident Student Tuition	$23,131	$53,973	$79,031	$94,452
Upper Level - Other Student Fees	$8,306	$19,380	$28,379	$33,916
Lower Level - Resident Student Tuition	$ 8,515.00	$ 19,868.00	$ 29,092.00	$ 34,768.00
Lower Level - Other Student Fees	$ 3,149.00	$ 7,348.00	$ 10,760.00	$ 12,860.00
SJR State Auxiliary	$ 19,000.00	$ -	$ -	$ -
Carry Forward:		$ 379.00	$ 20,722.00	$ 20,722.00
Total Funds Available	$ 62,101	$ 100,948	$ 167,984	$ 196,736
Total Unexpended Funds (carry forward)	$ 379	$ 20,722	$ 25,876	$ 44,236

ENROLLMENT PROJECTIONS AND FUNDING REQUIREMENTS
8.1 Provide a narrative justifying the estimated program enrollments and outcomes as they appear in Sections 5.1 – 6.1.
Enrollment in SJR State's baccalaureate degree programs ranges from 48 students in the Early Childhood Education program to 219 in the Organizational Management program (SJR State Factbook). Other indicators used to project enrollment in the proposed Bachelor of Science in Biological Sciences degree include SJR State's enrollment history in the program's prerequisite courses and the percent of students who indicated interest in pursuing a baccalaureate degree in Biological Sciences at SJR State in the College's November 2023 survey. In spite of these data points, the College recognizes that in the first years of the program, work will need to be done to ensure students complete all of the required prerequisite courses. For this reason, SJR State conservatively estimates that in year 1, term 1, 8 students will begin baccalaureate studies in biological sciences, and in year 1 term 2, 4 additional students will begin their studies, for a total of 12 new students in year 1. Projecting for year-to-year growth, an 80% year-to-year retention rate, and a two-year graduation rate of 80%, SJR State projects that enrollments will stabilize at a headcount of 49 students by year 4. Although this program will cater to non-traditional students, based upon the enrollment demographics of the program's prerequisite courses, a more traditional student population preparing for direct entry into the workforce is anticipated, and students in the program are projected to average 30 credits per year.

8.2 Provide a brief explanation of the sources and amounts of revenue that will be used to start the program as well as expenditures as they appear in Section 7.1.

Program expenditures including both instructional expenses and operational expenses have been considered. New operating funds have been budgeted for the increased costs related to both professional development and educational materials and supplies that will come with the hire of new faculty.

All necessary equipment, hardware, software, facilities, library resources, etc. are already in place to support the College's feeder Associate in Arts degree. However, additional equipment is required for the new upper-division courses. This purchase will be a one-time cost in year 1. The itemized equipment can be found in Section 11.1 and the cost is included in Table 7.1, year 1.

The proposed Bachelor of Science in Biological Sciences will complement the College's existing science coursework as 20- of the 60-credits to be taken after baccalaureate admissions are existing courses that currently have additional capacity for enrollment growth within the sections being offered. Given that potential for enrollment growth, the College will, therefore, not incur additional (unbudgeted) instructional expense for these 20 credits. In year one, 21 of the new 40 upper-division credits will be taught, and in year two, the remaining 19 new credits will be added to the course schedule.

Instructional expenses for science faculty in year 1 include the addition of funds to increase the science overload and adjunct budgets. In year 1, only 4 new credits will be added to the fall schedule, 10 new credits will be added in the spring, and 7 new credits will be added in the summer. A new full-time science faculty member will not be required to accommodate this program growth in year 1. However, in year 2, the projected growth of the program and addition of new courses will necessitate the addition of a full-time terminal degree science faculty member, and in year 3, a second full-time terminal degree science faculty member will be added as well.

Also included in the budgeted instructional expenses is a portion of the salary for one new full-time terminal degree teacher education faculty member to be hired in year one. The teaching load of this position will be shared between the Exceptional Student Education program and four of the College's non-education baccalaureate degree programs that include within the menu of electives 15-credits of upper-division education courses, biological sciences being one of those four degree programs. Eighty percent (80%) of the salary and benefits of this full-time position has been charged to the ESE program, while the remaining 20% has been budgeted in the four non-education baccalaureate degree programs at 5% each. That 5% is included in table 7.1 of this proposal.

Revenue projections are based on a 30%-70% split between lower-division credits and upper-division credits, as baccalaureate students will be required to take 20 credits of lower-division coursework and 40 credits of upper-division coursework to complete the last two years of the baccalaureate program. Because the program is intended to serve the residents of our service

district and state, and given that the enrollment in SJR State's existing bachelor degrees is 96% Florida residents, significant enrollment of non-resident students is not anticipated.

During year 1, SJR State will utilize funds generated through the College's auxiliaries to fund program startup costs and other expenditures that exceed the revenue generated through new tuition. The program is anticipated to become self-supporting in year 2.

PLANNING PROCESS

9.1 Summarize the internal planning process. In timeline format, please describe the steps your institution took in completing the internal review and approval of the baccalaureate program. For example, summarize actions taken by the academic department proposing the degree, any non-academic departments, the college-wide curriculum committee, the college president, the Board of Trustees and any other areas.

Date	Activity
Nov 2023	SJR State surveyed its current students regarding their interest in pursuing a baccalaureate degree in Biological Sciences at SJR State. Survey results indicated that 13% of students (N =949) selected Biological Sciences as their preferred baccalaureate degree. Biological Sciences was one of the top two choices of students.
11/3/2023	In response to discussion with and amongst faculty, community stakeholders, and students, on November 3, 2023, a group of faculty and academic leadership met to develop several workgroups to explore the expansion of SJR State baccalaureate degree programs. Items to be discussed by the workgroups include the top occupations in SJR State's service district and Workforce Region 8, the average number of available jobs, the typical entry-level education required, and the unmet graduate need.
11/13/2023	After examining the data and determining it reflected a local need for baccalaureate graduates in the field of Biological Sciences, SJR State faculty and leadership submitted to College Administration an email of intent to begin the process of exploring curriculum and program development.
11/15/2023	During the President's Cabinet Meeting, SJR State's President, Vice Presidents, and senior leadership team discussed the data, next steps, and timeline of the faculty workgroup's baccalaureate degree development efforts. During this meeting, the President's Cabinet indicated support for the potential program.
12/6/2023	Dr. Melanie Brown (SJR State's Chief Operating Officer) shared with the SJR State Board of Trustees the faculty workgroup's baccalaureate degree development efforts. The data, next steps, and timeline were discussed. During this meeting, the Board of Trustees voted to approve the continued development of the Bachelor in Biological Sciences with a targeted implementation of Fall 2025.
12/13/2023	During the Biological Sciences Faculty Department Meeting, the Biological Sciences faculty discussed the data and program and curriculum research that had been completed by the workgroup and voted to approve the continued development of the Bachelor in Biological Sciences with a targeted implementation of Fall 2025.
January 2024	Faculty began developing the curriculum, pathways to degree, course descriptions, and course outlines for the proposed Baccalaureate degree in Biological Sciences.
1/22/2024	During the Academic Affairs Curriculum meeting, the faculty workgroup's baccalaureate degree development efforts and the data supporting the degree

	development were discussed. At this time, the Academic Affairs Curriculum Committee voted to approve the continued development of the Bachelor in Biological Sciences with a targeted implementation of Fall 2025.
3/15/2024	The Biological Sciences faculty voted to approve the submission of the NOI and continued development of the BS in Biological Sciences with a targeted implementation of Fall 2025.
3/28/2024	The members of the President's Cabinet reviewed the NOI and indicated support of its submission to IPC and continued development of the BS in Biological Sciences with a targeted implementation of Fall 2025.
4/2/2024	SJR State IPC approved the NOI and continued development of the BS in Biological Sciences with a targeted implementation of Fall 2025.
4/17/2024	SJR State's Board of Trustees approved the NOI for the BS in Biological Sciences with a targeted implementation of Fall 2025.
5/1/2024	During the Biological Sciences Department SLO Closeout Meeting, the Biological Sciences faculty discussed the curriculum and if additional equipment was needed for the upper division courses. The Biological Sciences faculty voted to approve the curriculum.
8/6/2024	SJR State IPC approved the FCS Baccalaureate proposal and curriculum for the BS in Biological Sciences.
8/21/2024	SJR State's Board of Trustees approved the FCS Baccalaureate proposal and curriculum for the BS in Biological Sciences.

9.2 Summarize the external planning process with the business and industry community. In timeline format, please describe your institution's interactions and engagements with external stakeholders, including but not limited to industry advisory boards meetings, discussions with advisory committees, briefings from local businesses, consultations with employers, and conducting paper and online surveys.

Date	Activity
Nov 2023	SJR State surveyed community members and local employers regarding potential baccalaureate program expansion. Survey results indicated that they were interested in SJR State adding a Biological Sciences Baccalaureate Program.
Jan-April 2024	In anticipation of the development of the Bachelor Degree in Biological Sciences, SJR State faculty and academic leadership began the process of forming the Biological Sciences Advisory Board.
1/30/2024	Dr. Brown met with St. Johns River Water Management District Chief of Staff Brad Purcell. Mr. Purcell indicated his support of the proposed degree and offered to participate on an advisory board and in curriculum development conversations. A follow-up conversation took place between them via email.
3/13/2024	Associate Dean Royce Bass met with Palmer Kinser, the Director at WaterWorks in Putnam County. Mr. Kinser indicated his support of the proposed degree and offered to participate on an advisory board and in curriculum development conversations.
3/14/2024	SJR State's Teacher Education Coordinator Dawn Boles spoke with leadership at the Putnam County School District about the proposed Bachelor of Science in Biological Sciences degree and discussed the proposed education elective coursework. Kristin Carroll (PCSD Administrator of Certification, Recruitment, Novice Teacher Program, Instructional Experience, Intern Placement) indicated the School District's support of the proposal.
3/26/2024	SJR State's Teacher Education Coordinator Dawn Boles spoke with leadership at the St. Johns County School District about the proposed Bachelor of Science in Biological Sciences degree and discussed the proposed education elective coursework. Parker Raimann (SJCSD Director of Instruction Personnel) indicated the School District's support of the proposal.
3/26/2024	Dr. Kim Van Vliet (Biological Sciences Department Curriculum Coordinator) talked with Dr. Mark Martindale (Director) from UF Whitney Laboratory, St. Augustine, Florida, about the proposed Bachelor of Science in Biological Sciences degree and discussed the planned curriculum and unmet workforce need for additional graduates in the field. Dr. Mark Martindale indicated support for the proposal and expressed interest on serving on the advisory board. (Appendix 2)
3/26/2024	Dr. Kim Van Vliet (Biological Sciences Department Curriculum Coordinator) spoke with Dr. Handelsman (Director) from the Wisconsin Institute for Discovery, about the adding a Bachelor of Science in Biological Sciences degree. Dr. Handelsman was very supportive of the degree. Dr. Van Vliet provided more

	information about the new program via email. Dr. Handelsman provided an email of support. (Appendix 3)
3/27/2024	SJR State's Teacher Education Coordinator Dawn Boles spoke with leadership at the Clay County School District about the proposed Bachelor of Science in Biological Sciences degree and the proposed education elective coursework. Samantha Wright (CCSD Supervisor of Certified Teacher Placement) indicated the School District's support of the proposal.
4/4/2024	Associate Dean Royce Bass spoke with Erin Schellhorn, the Vice President of Executive Operations at ENCORE Research Group. Ms. Schellhorn indicated her support of the proposed degree and offered to participate on an advisory board. A follow-up conversation took place between them via email. Ms. Shellhorn submitted a letter of support for the new Bachelor degree. (Appendix 4)
4/4/2024	Associate Dean Royce Bass met with Dennis Hoban, Administrator of Talent Strategy and Management at UF Health St. Johns. Mr. Holban indicated his support of the proposed degree. Follow-up conversation took place between them via email.
4/5/2024	Associate Dean Royce Bass met with Nicole Grace, the Executive Director of Keep Putnam Beautiful. Ms. Grace indicated her support of the proposed degree and offered to participate on an advisory board and in curriculum development conversations.
4/5/2024	Associate Dean Royce Bass spoke with Julie Hindall, Senior Director of Talent Development at JaxUSA. Ms. Hindall stated her support of the proposed degree. Follow-up conversation took place between them via email.
4/11/2024	JAXUSA SVP Strategy & Talent Dr. Anna Lebesch submitted a Letter of Support for the proposed degree. (Appendix 5)
4/11/2024	Associate Dean Royce Bass met Amanda Foss, President of GreenWater Labs. Ms. Foss indicated her support of the proposed degree and offered to participate on an advisory board. Follow-up conversation took place between them via email. Ms. Foss submitted a letter of support for the new Bachelor degree. (Appendix 6)
4/23/2024	Associate Dean Royce Bass spoke with Paige Jones, Assistant Park Manager at Ravine Gardens-Florida State Parks. Ms. Jones was extremely supportive of the proposed degree. Follow-up conversation took place between them via email.
4/23/2024	Associate Dean Royce Bass spoke with Julio Perez, Extension Agent at UF/IFAS. Mr. Perez was supportive of the proposed degree. Mr. Perez felt that degree would be a great opportunity for our students and UF/IFAS. A follow-up conversation took place between them via email.
4/24/2024	CareerSource President, Bruce Ferguson, submitted a letter of support for the Bachelor of Science in Biological Sciences degree. (Appendix 7)
4/24/2024	Clay Electric Palatka District Manager, Derek Hembree, submitted a letter of support for the Bachelor of Science in Biological Sciences degree. (Appendix 8)

4/24/2024	Clay Florida Economic Development Corporation President, Crawford Powell, submitted a letter of support for the Bachelor of Science in Biological Sciences degree. (Appendix 9)
4/24/2024	Putnam County Chamber of Commerce Vice-President of Economic Development, Mark Litten, submitted a letter of support for the Bachelor of Science in Biological Sciences degree. (Appendix 10)
4/25/2024	Putnam County Commissioner, Larry Harvey, submitted a letter of support for the Bachelor of Science in Biological Sciences degree. (Appendix 11)
4/25/2024	Putnam County Sheriff's Office Chief Deputy, Colonel Joseph Wells, submitted a letter of support for the Bachelor of Science in Biological Sciences degree. (Appendix 12)
4/29/2024	Associate Dean Bass met with Laura France, Assistant Superintendent, Curriculum and Instruction-Putnam County School District. Ms. France was excited about the opportunity for residents of Clay, St. Johns, and especially Putnam County to have the opportunity to earn a degree that would allow them to receive an alternative teacher certificate in science. A follow-up conversation took place between them via email.
5/4/2024	Associate Dean Bass emailed St. Johns Riverkeeper information about the proposed degree. The Education Director (Jamie DeNisco) was supportive of the Bachelor of Science in Biological Sciences degree and agreed to serve on the advisory board.
5/6/2024	Associate Dean Bass spoke with Marna Fox, Secondary Science Program Specialist-St. Johns County School District. Ms. Fox was excited about the opportunity for residents of St. Johns County to have the opportunity to earn a degree that would allow them to receive an alternative teacher certificate in science. A follow-up conversation took place between them via email. Ms. Fox agreed to serve on the advisory board.
5/6/2024	Associate Dean Bass spoke with Ms. Pickett, Director of Secondary Education-Clay County School District. Ms. Pickett was excited about the opportunity for residents of Clay County to have the opportunity to earn a degree that would allow them to receive an alternative teacher certificate in science. A follow-up conversation took place between them via email. Ms. Pickett agreed to serve on the advisory board.
5/6/2024	Putnam County Chamber of Commerce President, Dana Jones, submitted a letter support for the Bachelor of Science in Biological Sciences degree. (Appendix 13)
5/13/2024	Associate Dean Bass met with Josie Taylor, Education Director-Alligator Farm. Ms. Taylor is very supportive of the proposed program as a potential employer and volunteered to serve on the advisory board. A follow-up conversation took place between them via email.
5/14/2024	Clay County Commissioner Chairman, Jim Renninger, submitted a letter support for the Bachelor of Science in Biological Sciences degree. (Appendix 14)
5/15/2024	Associate Dean Bass spoke with Mr. Cotton, CareerSource Workforce Development Specialist. Mr. Cotton was excited about the positive impact that

	the proposed degree would have on our service district. A follow-up conversation took place between them via email. Mr. Cotton agreed to serve on the advisory board.
5/17/2024	St. Johns County Board of County Commissioners Letter of Support (Appendix 15)
5/22/2024	Clay County Superintendent of Schools Letter of Support (Appendix 16)
5/23/2024	St. Johns County Superintendent of Schools Letter of Support (Appendix 17)
8/23/2024	The Biological Sciences Advisory Board Membership was finalized, and the first Advisory Board Meeting was convened on 8/23/2024 at 2:00pm. (Appendix 18)

9.3 List external engagement activities with public and nonpublic postsecondary institutions. This list shall include meetings and other forms of communication among external postsecondary institutions regarding evidence of need, demand, and economic impact.

9.3 Florida's Academic Program Pre-Proposal Recognition System (APPRiSe)

3/13/2024: SJR State submitted a posting in Florida's Academic Program Pre-Proposal Recognition System (APPRiSe) to notify all post-secondary institutions statewide that the College is considering developing a baccalaureate degree in Biological Sciences and provide advance opportunity for discussion and collaboration. There were no responses posted within APPRiSE prior to the closing of the comment window on 4/26/2024.

9.3.1 Public Universities in College's Service District

NA--No public universities have facilities in the College's service district.

9.3.2 Regionally Accredited Institutions in College's Service District

4/5/2024: SJR State's President shared information via email in advance and on 4/5/2024 spoke via phone with Flagler College's President about SJR State's proposal. During this call, President Delaney shared that Flagler College did not object to the proposal and wished SJR State the best in its efforts.

9/30/2024: A letter of support for SJR State's baccalaureate proposal was submitted by Flagler College's President. (Appendix 20)

5/7/2024: Associate Dean Royce Bass met with Dr. Ennis, Senior Program Director of DPT Programs-University of St. Augustine. Dr. Ennis indicated her support of the proposed degree. A follow-up conversation took place between them via email. Dr. Ennis agreed to serve on the advisory board.

9.3.3 Institutions outside of College's Service District

3/25/2024: SJR State's President spoke with Florida State College at Jacksonville's President who voiced support for SJR State's proposal. SJR State's Chief Operating Officer followed up the conversation with an email to the President.

3/25/2024: SJR State's President spoke with Daytona State College's President who voiced support for SJR State's proposal. SJR State's Chief Operating Officer followed up the conversation with an email to the President.

4/23/2024: Associate Dean Royce Bass spoke with Michael Doyle, Senior Associate Director of Admissions at Nova Southeastern University. Mr. Doyle expressed his support of the proposed degree. A follow-up conversation took place between them via email. Mr. Doyle submitted a letter of support and volunteered to serve on the advisory board. (Appendix 19)

PROGRAM IMPLEMENTATION TIMELINE		
10.1	Indicate the date the notice was initially posted in APPRiSe.	March 11, 2024
10.2	Indicate the date of District Board of Trustees approval.	April 17, 2024
10.3	Indicate the date the Notice of Intent (NOI) was submitted to DFC.	April 17, 2024
10.4	Indicate the date the completed proposal was submitted to DFC.	November 4, 2024
10.5	Indicate the date the proposal is targeted for State Board of Education (SBOE) consideration. Please note that from the date the DFC receives the finalized proposal, the Commissioner has 45 days to recommend to the SBOE approval or disapproval of the proposal. Please take into account the date you plan to submit the proposal in accordance with the next SBOE meeting.	November 2024 or January 2025
10.6	Indicate the date the program is targeting for SACSCOC approval (if applicable).	January 2025
10.7	Indicate the date the program is targeting initial teacher preparation program approval (if applicable).	N/A
10.8	Indicate the targeted date that upper-division courses are to begin.	August 2025

FACILITIES AND EQUIPMENT SPECIFIC TO PROGRAM AREA

11.1 Describe the existing facilities and equipment that the students in the program will utilize.

St. Johns River State College has campuses in Orange Park, Palatka, and St. Augustine, and these campuses are equipped with traditional classrooms, appropriately equipped laboratory space, computer labs, and other instructional spaces, in addition to full-service libraries, tutoring centers, and other academic and student services. Online and hybrid courses use the learning management system Canvas.

The proposed Bachelor in Biological Sciences will be offered through a combination of online and on-campus courses. As part of their baccalaureate studies, students will have class on-campus in traditional classrooms, science labs, and computer labs. On each of the College's three campuses, there are multiple well equipped science laboratories:

- Palatka Campus:
  - 3 Biological Science Laboratories
  - 2 Physical Science Laboratories
- St. Augustine Campus:
  - 4 Biological Science Laboratories
  - 3 Physical Science Laboratories
- Orange Park Campus:
  - 5 Biological Science Laboratories
  - 4 Physical Science Laboratories

In addition to these biological and physical science laboratories, the College also has labs and classrooms dedicated to instruction in nursing and the allied health fields.

The availability of classroom space and spaces dedicated to academic and student support services on all three SJR State campuses is sufficient to accommodate the addition of this proposed baccalaureate degree.

11.2 Describe the new facilities and equipment that will be needed for the program (if applicable).

No new facilities will be needed for this program; however, the College will require several new pieces of equipment to support the instruction of the new upper-division courses. The new equipment to be purchased includes:

- Ultra Low Freezer – SoLow -80 Freezer
- Spectrophotometer Biotek Epoch with Take3 microplate
- Cell culture CO2 incubator – Thermo Fisher BB15
- Thermal Cycler
- Vertebrate Model
- FPLC protein purification (AKTA)

The purchase of this equipment will represent a one-time nonrecurring expense totaling approximately $40,000, and this expense is included in Year 1 of the budget (Table 7.1).

LIBRARY AND MEDIA SPECIFIC TO PROGRAM

12.1 Describe the existing library and media resources that will be utilized for the program.

St. Johns River State College has three campus libraries each of which features a robust collection of print and digital materials supporting the curriculum. Each campus library has two librarians on staff who hold master's degrees in library science from ALA accredited institutions and employs several professional and support staff members with varying, appropriate credentials. Each campus library is open 65 hours per week in the fall and spring semesters and 56 hours per week in the summer. The library is open from 8:00 a.m. to 9:00 p.m. Monday – Thursday, Friday from 8:00 a.m. to 5:00 p.m., and Sunday from 1:00 p.m. to 5:00 p.m. In the summer, the College is closed on Fridays. Saturday hours are provided at each location before finals week. The library provides a space and atmosphere conducive to study and research. In addition to a variety of seating areas for studying, each campus library provides computers for student use. These computers are maintained by the College's IT department and are outfitted with programs for which the College has site licenses.

SJR State's Learning Resources include:

- Library resources (data captured 5/16/2024):
    - 65,970 books (unique volume count)
    - 264,990 eBooks
    - 7,555 DVDs (unique volume count)
    - 43,693 streaming videos
    - 35,303 online periodicals
    - 142 online database subscriptions
- Educational technology, high-speed internet, and WiFi for current students, faculty, and staff
- Tutoring services in-person and online
- Research assistance in-person and online
- Class instruction and outreach by faculty request
- Academic support workshops

Discipline-specific resources currently in the SJR State Library collection that support the Bachelor of Science in Biological Sciences include:

- 2,172 print book titles
- 21,304 eBook titles
- 2,429 online periodicals
- 3,967 streaming videos and DVDs
- 14 online databases
- A discipline specific research guide (Biological Sciences Research Guide)

Additional books, journals and databases will be added as needed and upon request from faculty to support curricular needs.

Students access library and learning resources online via the Learning Resources web site; a link to this web site is provided on the College home page and in multiple places on MySJRstate (the College's student and faculty portal). Single sign-on protocols allow students to access the library's resources using the same username and password used to login to MySJRstate. Students are automatically granted access to the library's resources upon registering for classes.

The library's physical collections, streaming videos, and eBooks are discoverable through Ex Libris' discovery platform, Primo. The "Library Catalog" link in the header of the Learning Resources web site gives students easy access to Primo. Primo is the statewide union catalog of Florida's public colleges and university system libraries and SJR State maintains a reciprocal borrowing agreement with all Florida College System (FCS) and State University System (SUS) libraries.

Using Primo's request feature, Uborrow, students can check out items from any SJR State campus and have them delivered to their nearest campus library for pickup and return. Additionally, students can use Uborrow to request books, media, and articles from any state college or university library; items are shipped directly to their selected campus library for student pick-up and students may return the material to any campus library. To provide access to resources available nationally, the library provides inter-library loan services through Worldcat Discovery at no cost to students or faculty.

Students are made aware of the library and learning/information resources available to them through classroom outreach visits and instructional sessions provided by Learning Resources staff and faculty on-campus, off-site, and online. Library faculty provide instructional services in all modalities to help students develop the critical set of skills needed to find, retrieve, analyze, and use information. Instructional services are provided in required courses and gateway courses such as English composition, but is provided to all courses, upon faculty request, and will be available to BS faculty and students.

Instructional services provided by library faculty include:

- Face-to-face course related instruction, which includes lecture sessions, orientation sessions and tours.
- In-person, one-on-one reference, and online database research consultations, in the library and online via chat or video conference.
- Creation of course-related research guides.
- Creation of online instructional guides for program-specific resources.

SJR State assigns a liaison librarian to provide additional support for science programs.

Students can get on-demand help using library resources during all hours of library operation in-person or online via the library's chat service. The chat service is embedded as a widget on every Learning Resources web site page and is a text box on the Library Help web page. Extended chat support is provided on weekends through the statewide Ask-A-Librarian service which students access from any link to the library's chat service.

12.2 Describe the new library and media resources that will be needed for the program (if applicable).
The SJR State Library regularly updates its collection in alignment with student, faculty, and programmatic needs. New library and media resources will not be needed to implement this program.

ACADEMIC CONTENT
13.1 List the admission requirements for the proposed baccalaureate program and describe the process for each admission pathway as reported in section 1.6, including targeted 2+2 agreements, academic GPA, test scores, fingerprints, health screenings, background checks, signed releases, and any other program requirements (as applicable).

Students seeking admission to the Bachelor degree in Biological Sciences must submit an application for admission to the College, complete an online orientation course, and comply with the College's general admissions procedures.

Admission to the program will be open to applicants during the Fall and Spring terms who have a cumulative GPA of 2.0 or higher, have completed an Associate in Arts or a higher degree from an accredited institution, and have successfully completed the required prerequisite courses totaling 30/31 credit hours. All general education coursework must be completed with a grade of "C" or higher, and submission of official transcript(s) is required prior to program acceptance.

The following required prerequisite courses are aligned with Florida's Common Prerequisite Manual:

- Choose one:
  - MAC 2233 Survey of Calculus 3 credits
    OR
  - MAC2311 Analytic Geometry with Calculus I 4 credits
- Choose one:
  - STA2023 Elementary Statistics 3 credits
    OR
  - MAC2312 Analytic Geometry with Calculus II 4 credits
- BSC 2010 General Biology I 3 credits
- BSC 2010L General Biology I Lab 1 credit
- BSC 2011 General Biology II 3 credits
- BSC 2011L General Biology II Lab 1 credit
- CHM 1045 General Chemistry I 3 credits
- CHM 1045L General Chemistry I Lab 1 credit
- CHM 1046L General Chemistry II 3 credits
- CHM 1046L General Chemistry II Lab 1 credit
- Choose one 8-credit sequence:
  - PHY 1053 General Physics I 3 credits
  - PHY 1053L General Physics I Lab 1 credit
  - PHY 1054 General Physics II 3 credits
  - PHY 1054L General Physics II Lab 1 credit

OR

- PHY 2048 Physics I w/ Calculus 3 credits
- PHY 2048L Physics I w/ Calculus Lab 1 credit
- PHY 2049 Physics II w/ Calculus 3 credits
- PHY 2049L Physics II w/ Calculus Lab 1 credit

Submission of official transcript(s) is required prior to program acceptance.

SJR State will be adding this program to current 2+2 agreements and pursuing additional transfer agreements with other institutions as deemed appropriate to allow students with associate degrees from other colleges to matriculate seamlessly into the Bachelor degree in Biological Sciences. Matriculation of students with an earned AA or higher degree will follow standard transfer practices.

Articulation agreements with Nova Southeastern University and University of St. Augustine will allow students earning a Biological Sciences Bachelor degree to pursue a graduate degree.

13.2 What is the estimated percentage of upper-division courses in the program that will be taught by faculty with a terminal degree?

During the 2023-2024 academic year, 43% of the SJR State full time faculty teaching in the science department had a terminal degree in their field. Due to the planned addition of one full-time terminal degree faculty member in year two and a second full-time terminal degree faculty member in year three, it is estimated that more than 50% of upper division courses in the proposed Bachelor degree in biological sciences will be taught by faculty with a terminal degree.

13.3 What is the anticipated average student/teacher ratio for each of the first three years based on enrollment projections?

Year 1	Year 2	Year 3
8:1	10:1	12:1

13.4 What specialized program accreditation will be sought, if applicable? What is the anticipated specialized program accreditation date, if applicable?

No specialized program accreditation is required or will be sought.

13.5 If there are similar programs listed in the Common Prerequisites Manual (CPM), list the established common prerequisites courses by CIP code (and track, if any).

Indian River State College, Miami Dade State College, and St. Petersburg College offer Bachelor of Science Degrees in Biological Science in CIP 26.0101 Track 1. The specified common prerequisites for this major are:

- STA 2023 Elementary Statistics I
- MAC 2311 Analytic Geometry with Calculus I 4 credits **OR**
- MAC 2233 Survey of Calculus 3 credits
- CHM 1045 General Chemistry I 3 credits
- CHM 1045L General Chemistry I Lab 1 credit
- CHM 1046 General Chemistry II 3 credits
- CHM 1046L General Chemistry II Lab 1 credits
- BSC 2010 General Biology I 3 credits
- BSC 2010L General Biology I Lab 1 credit
- BSC 2011 General Biology II 3 credits
- BSC 2011L General Biology II Lab 1 credit

General Physics I & II or Physics I & II with Calculus

- PHY 1053 General Physics I 3 credits
- PHY 1053L General Physics I Lab 1 credit
- PHY 1054 General Physics II 3 credits
- PHY 1054L General Physics II Lab 1 credit

OR

- PHY 2048 Physics I with Calculus 3 credits
- PHY 2048L Physics I with Calculus Lab 1 credit
- PHY 2049 Physics II with Calculus 3 credits
- PHY 2049L Physics II with Calculus Lab 1 credit

OR Organic Chemistry I & II

- CHM 2210 Organic Chemistry I 3 credits
- CHM 2210L Organic Chemistry I Lab 1 credit
- CHM 2211 Organic Chemistry II 3 credits
- CHM 2211L Organic Chemistry II Lab 1 credit

SJR State's proposal aligns with these specified common prerequisites for the major.

13.6 *Describe any proposed revisions to the established common prerequisites for this CIP (and track, if any).*

☒ My institution does not anticipate proposing revisions to the common prerequisite manual.

☐ My institution does anticipate proposing revisions to the common prerequisite manual, as summarized below.

13.7 For each primary pathway identified in Section 1.6, list all courses required once admitted to the baccalaureate program by term, in sequence. Include credit hours per term and total credits for the program. Please note what courses fulfill general education (ge), program core (pc), elective requirements (elec), and what courses apply to concentrations (conc), if applicable, by including the provided abbreviations in parentheses following each course title.

13.7.1	**Bachelor Degree in Biological Sciences FALL Start Course Sequence**	
Term 1 Fall	**Course Title**	**Credit Hours**
BSC 2085	Human Anatomy & Physiology I (pc)	3
BSC 2085	Laboratory for Human Anatomy & Physiology I (pc)	1
CHM 2210	Organic Chemistry I (pc)	3
CHM 2210L	Laboratory for Organic Chemistry I (pc)	1
PCB 3063	Genetics (pc)	3
PCB 3043L	Laboratory for Genetics (pc)	1
	Total Term Credit Hours	12
Term 2 Spring	**Course Title**	**Credit Hours**
BSC 2086	Human Anatomy & Physiology II (pc)	3
BSC 2086L	Lab for Human A&P II (pc)	1
CHM 2011	Organic Chemistry II (pc)	3
CHM 2011L	Lab for Organic Chemistry II (pc)	1
PCB 3043	Ecology (pc)	3
PCB 3043L	Lab for Ecology (pc)	1
CHOOSE 1: BSC 3312 ZOO 3713C EDF4444 EDF4603 EDG4343 RED4342 TSL3083	CHOOSE 1: Marine Biology (elec) Comparative Vertebrate Anatomy (elec) Assessment of Learning and Behavior (elec) Critical Issues in Classroom Management, Ethics, Law, & Safety (elec) Instructional Strategies (elec) Foundation of Research Practices in Reading Education (elec) ESOL Issues and Strategies (elec)	3
	Total Term Credit Hours	15
Term 3 Summer	**Course Title**	**Credit Hours**
PCB 3023	Cell Biology (pc)	3
PCB 3023L	Lab for Cell Biology (pc)	1
BSC 4848	Scientific Communication (pc)	2
BSC 4905	Undergraduate Research in Biology (pc)	1
	Total Term Credit Hours	7
Term 4 Fall	**Course Title**	**Credit Hours**
MCB 2010	Microbiology (pc)	3
MCB 2010L	Lab for Microbiology (pc)	1
BSC 3464	Biotechnology (pc)	3
BSC 3464L	Lab for Biotechnology (pc)	1
CHOOSE 2: BOT 3015 PCB4024 EDF4444 EDF4603 EDG4343	CHOOSE 2: Plant Biology (elec) Evolutionary Biology (elec) Assessment of Learning and Behavior (elec) Critical Issues in Classroom Management, Ethics, Law, & Safety (elec) Instructional Strategies (elec)	6

RED4342 TSL3083	Foundation of Research Practices in Reading Education (elec) ESOL Issues and Strategies (elec)	
	Total Term Credit Hours	14
Term 5 Spring	**Course Title**	**Credit Hours**
BCH 4053	Biochemistry I (pc)	3
BCH 4053L	Lab for Biochemistry (pc)	1
BSC 4900	Senior Capstone (pc)	2
CHOOSE 2: BSC 3312 PCB 3674 MCB 4503 ZOO 3713 EDF4444 EDF4603 EDG4343 RED4342 TSL3083	CHOOSE 2: Marine Biology (elec) Evolutionary Biology (elec) Virology (elec) Comparative Vertebrate Anatomy (elec) Assessment of Learning and Behavior (elec) Critical Issues in Classroom Management, Ethics, Law, & Safety (elec) Instructional Strategies (elec) Foundation of Research Practices in Reading Education (elec) ESOL Issues and Strategies (elec)	6
	Total Term Credit Hours	12
	Program Toal Credit Hours	60

13.7.2	**Bachelor Degree in Biological Sciences** **SPRING Start Course Sequence**	
Term 1 Spring	**Course Title**	**Credit Hours**
BSC 2085	Human Anatomy & Physiology I (pc)	3
BSC 2085	Laboratory for Human Anatomy & Physiology I (pc)	1
PCB 3043	Ecology (pc)	3
PCB 3043L	Laboratory for Ecology (pc)	1
CHOOSE 2: BSC 3312 ZOO3713 EDF4444 EDF4603 EDG4343 RED4342 TSL3083	CHOOSE 2: Marine Biology (elec) Comparative Vertebrate Anatomy (elec) Assessment of Learning and Behavior (elec) Critical Issues in Classroom Management, Ethics, Law, & Safety (elec) Instructional Strategies (elec) Foundation of Research Practices in Reading Education (elec) ESOL Issues and Strategies (elec)	6
	Total Term Credit Hours	14
Term 2 Summer	**Course Title**	**Credit Hours**
PCB 3023	Cell Biology (pc)	3
PCB 3023L	Lab for Cell Biology (pc)	1
BSC 4848	Scientific Communication (pc)	2
BSC 4905	Undergraduate Research in Biology (pc)	1
	Total Term Credit Hours	7
Term 3 Fall	**Course Title**	**Credit Hours**
BSC 2086	Human Anatomy & Physiology II (pc)	3

BSC 2086L	Lab for Human Anatomy & Physiology II (pc)	1
CHM 2210	Organic Chemistry I (pc)	3
CHM 2010L	Lab for Organic Chemistry I (pc)	1
PCB 3063	Genetics (pc)	3
PCB 3063L	Lab for Genetics (pc)	1
	Total Term Credit Hours	12
Term 4 Spring	**Course Title**	**Credit Hours**
CHM 2211	Organic Chemistry II (pc)	3
CHM 2211L	Lab for Organic Chemistry II (pc)	1
MCB 2010	Microbiology (pc)	3
MCB 2010L	Lab for Microbiology (pc)	1
BSC 4053	Biochemistry (pc)	3
BSC 4053L	Lab for Biochemistry (pc)	1
CHOOSE 1: PCB 3674 MCB 4503 EDF4444 EDF4603 EDG4343 RED4342 TSL3083	CHOOSE 1: Evolutionary Biology (elec) Virology (elec) Assessment of Learning and Behavior (elec) Critical Issues in Classroom Management, Ethics, Law, & Safety (elec) Instructional Strategies (elec) Foundation of Research Practices in Reading Education (elec) ESOL Issues and Strategies (elec)	3
	Total Term Credit Hours	15
Term 5 Fall	**Course Title**	**Credit Hours**
BSC 3464	Biotechnology (pc)	3
BSC 3464L	Lab for Biotechnology (pc)	1
BSC 4900	Senior Capstone (pc)	2
CHOOSE 2: BOT 3015 PCB 4024 EDF4444 EDF4603 EDG4343 RED4342 TSL3083	CHOOSE 2: Plant Biology (elec) Molecular Biology (elec) Assessment of Learning and Behavior (elec) Critical Issues in Classroom Management, Ethics, Law, & Safety (elec) Instructional Strategies (elec) Foundation of Research Practices in Reading Education (elec) ESOL Issues and Strategies (elec)	6
	Total Term Credit Hours	12
	Program Toal Credit Hours	60

13.8 Indicate whether the program is being proposed as a limited or restricted access program.

☐Limited Access
☐Restricted Access
☒N/A

Provide additional information (e.g., enrollment capacity, admissions requirements, etc.) if the program is being proposed as a limited or restricted access program.

N/A

PROGRAM TERMINATION
14.1 Provide a plan of action if the program is terminated in the future, including teach-out alternatives for students.
If the Bachelor of Science in Biological Sciences is terminated in the future, the College will work with all admitted students to find alternative paths for program completion, including facilitating transfers into programs at other institutions and a minimum teach-out period of two years.

SUPPLEMENTAL MATERIALS

15.1 Summarize any supporting documents included with the proposal, such as meeting minutes, survey results, letters of support, and other supporting artifacts. Throughout the proposal, please include in-text references to the supplemental materials for reviewer reference.

Appendix 2: UF Whitney Laboratory Director, Dr. Martindale Letter of Support
Appendix 3: Wisconsin Institute for Discovery Director, Dr. Handelsman Email of Support
Appendix 4: ENCORE Research Group, VP of Executive Operations- Erin Shellhorn Letter of Support
Appendix 5: JAXUSA SVP Strategy & Talent, Dr. Lebesch Letter of Support
Appendix 6: GreenWater Labs President, Amanda Foss Letter of Support
Appendix 7: CareerSource President, Bruce Ferguson Letter of Support
Appendix 8: Clay Electric, Palatka District Manager-Derek Hembree Letter of Support
Appendix 9: Clay Florida EDC, President-Crawford Powell Letter of Support
Appendix 10: Putnam County EDC, VP of Economic Development Mark Litten Letter of Support
Appendix 11: Putnam County Commissioner, Larry Harvey Letter of Support
Appendix 12: Putnam County Sheriff's Office, Chief Deputy Col. Joseph Wells Letter of Support
Appendix 13: Putnam County Chamber of Commerce, Dana Jones Letter of Support
Appendix 14: Clay County Commissioner Chairman Jim Renninger Letter of Support
Appendix 15: St. Johns County Board of County Commissioners Letter of Support
Appendix 16: Clay County Superintendent of Schools Letter of Support
Appendix 17: St. Johns County Superintendent of Schools Letter of Support
Appendix 18: SJR State 2024-2025 Biological Sciences Advisory Board Membership List
Appendix 19: Nova Southeastern University, Director of Admissions Michael Doyle Letter of Support
Appendix 20: Flagler College Letter of Support
Appendix 21: Florida Department of Education Statement of Eligibility

15.2 List any objections or alternative proposals for this program received from other postsecondary institutions. If objections or alternative proposals were received, institutions are welcome to submit a rebuttal and include any necessary supporting documentation.
No objections or alternative proposals for this program were received from other postsecondary institutions.