



**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](mailto: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.	Palm Beach State College
Institution President.	Ava L. Parker, J.D.

**PROGRAM SUMMARY**

1.1	Program name.	Medical Imaging
1.2	Degree type.	<input checked="" type="checkbox"/> Bachelor of Science <input type="checkbox"/> Bachelor of Applied Science
1.3	How will the proposed degree program be delivered? (check all that apply).	<input type="checkbox"/> Face-to-face (F2F) (Entire degree program delivered via F2F courses only) <input type="checkbox"/> Completely online (Entire degree program delivered via online courses only) <input checked="" type="checkbox"/> 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).	51.0911
1.5	Anticipated program implementation date.	January 2024
1.6	What are the primary pathways for admission to the program? Check all that apply.	<input type="checkbox"/> Associate in Arts (AA) <input checked="" type="checkbox"/> Associate in Science (AS) <input type="checkbox"/> Associate in Applied Science (AAS)  If you selected AS/AAS, please specify the program:  Radiography, Sonography, Nuclear Medicine or Radiation Therapy
1.7	Is the degree program a STEM focus area?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1.8	List program concentration(s) or track(s) (if applicable).	Leadership, Computed Tomography(CT), Magnetic Resonance Imaging (MRI), Interventional Radiology, Adult Echocardiography

## 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.

The bachelor's degree in medical imaging will provide upper-division preparation for registered technologists who are seeking to advance their career in clinical specialties such as Computed Tomography (CT), Magnetic Resonance Imaging (MRI), Interventional Radiology (IR), Mammography, Adult Echocardiography, and Leadership, with an emphasis in emerging technologies such as artificial intelligence (AI) and computer-aided diagnostics (CAD).

Radiology is a high-tech, high-demand field. According to DEO reports, there are over 2,591 job openings within Palm Beach County, and the demand is projected to increase 15% across occupations within the discipline. As our population ages, medical imaging is the front line in providing quick and accurate diagnostics for patients. Within our service area, there are four imaging programs producing approximately 160 completers per year. Two out of five open positions are successfully filled, illustrating the unmet need for imaging technologists and driving the demand for further educational opportunities.

The program pathways are designed to prepare graduates of AS degree programs in Diagnostic Medical Sonography, Radiography, Nuclear Medicine, and Radiation Therapy to expand their skills and enter the next phase of their career in clinical specialties such as CT, MRI, Interventional Radiology, Mammography or Echocardiography. The graduate of this program may also set their sights on advancement within the leadership arena of radiology, including management, sales, and education.

The curriculum is designed to provide a AS to BS career path educational plan. Students who have completed 36 credit hours of general education and 48 hours of technical AS-level coursework will be admitted to the upper division. From this point, the student will complete 21 credits of upper-division core and 15 credits of an elective concentration of their choosing. Elective options are Leadership, CT, MRI, IR, Mammography, and Adult Echocardiography. The advanced imaging options include clinical education and prepare the individual for post-primary certification. The curriculum core includes coursework in Radiology Information Systems, Advanced Pathophysiology, Ethics and Law, Leadership and Management, Quality Management and Compliance, Research Methods and Information Literacy, and a Directed Capstone Experience, all with a focus on advanced skill in patient care and safety within radiology services. All courses and course content will comply with Florida statutes.

Potential employment opportunities are CT technologist, MRI technologist, Interventional Radiologic Technologist, Mammographer, Echocardiographer, radiology supervisor, sales representative, applications specialist and educational instructor.

According to the Florida DEO Statistics, the average annual wage for these occupations is \$64,092. (Table 3.1.1)

### 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.

The workforce demand for imaging professionals in South Florida is increasing each year. Local employers, hospitals, and imaging centers indicate a need for advanced education in the field of medical imaging to provide an avenue for advancement and fill jobs in subspecialties within radiology.

Florida DEO projections for total job openings in Palm Beach County include:

- Sonography 310
- Radiation Therapy 34
- Radiologic Technologists 659
- MRI Technologists 163
- Dosimetry/Mammography, etc. 1372
- Nuclear Med Technologists 53
- Total openings service area:  $2591/8 = 324$  (DEO projection)

The average hourly wage for this occupation is \$30.81 with an annualized salary of \$64,092. (Table 3.1.1) To address job demand, Palm Beach State College currently prepares ~100 graduates annually in AS level Radiography, Sonography. There are four imaging programs in the service area producing ~160 diploma and AS completers within the entry level disciplines. There are no upper division programs within the region. Valencia College is the only other state institution that offers upper division preparation and averages 35 graduates within the discipline.

The unmet need remains significant. This proposed program will draw upon currently registered technologists in the region and provide them with a pathway to advance skills.

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

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.

**CLICK [HERE](#) FOR INSTRUCTIONS FOR COMPLETING THE DEMAND SECTION**

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
Diagnostic Medical Sonographers	29-2032	Palm Beach	463	573	23.76	310	31.92	\$ 66,394	PS	A
Radiation Therapists	29-1124	Palm Beach	62	71	14.52	34	32.55	\$ 67,704	A	A
Radiologic Technologists	29-2034	Palm Beach	1179	1350	14.50	659	26.62	\$ 55,370	PS	A
Magnetic Res Imaging Technologists	29-2035	Palm Beach	281	327	16.37	163	34.32	\$ 71,386	PS	A
Medical Dosimetrist and all other	29-2098	Palm Beach	1882	2131	13.23	1372	20.27	\$ 42,162	PS	PS
Nuclear Medicine Technologists	29-2033	Palm Beach	104	115	10.58	53	\$ 39.20	\$ 81,536	A	
					#DIV/0!			\$ -		
					#DIV/0!			\$ -		
					#DIV/0!			\$ -		
					#DIV/0!			\$ -		
						Total	\$ 30.81	\$ 64,092		

\*Please replace the “Base Year” and “Projected Year” headers with the years reflected in the projections portal (e.g., Base Year is 2019, Projected Year is 2027).

\*\*Please note that the “Level Change” column in Table 3.1.1 corresponds to the “Percent Growth” employment projections data produced by the DEO.

\*\*\*Please note that the “Total Job Openings” columns is preset to be divided by 8.





## 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.

**CLICK [HERE](#) FOR INSTRUCTIONS FOR COMPLETING THE ESTIMATES OF UNMET NEED SECTION:** If institutions do not have data available for completers in the service district, please report statewide data. You may note these are statewide figures.

	<b>Demand</b>	<b>Supply</b>		<b>Range of Estimated Unmet Need</b>					
	<b>(A)</b>	<b>(B)</b>	<b>(C)</b>	<b>(A-B)</b>	<b>(A-C)</b>				
	<b>Total Job Openings</b>	<b>Most Recent Year</b>	<b>5-year average or average of years available if less than 5 years</b>	<b>Difference</b>	<b>Difference</b>				
DEO Total	324			324	324				
Statewide (VC)		38	35	-38	-35				



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.

The Business Partnership Council, consisting of radiology directors and managers from community hospitals within our service area, have expressed a great need for additional personnel and improved career pathways for clinical staff to expand their skills. This group has expressed support for the development of the BS program. They have provided direction for curriculum development and the general focus of the program. They have provided guidance regarding the delivery of online coursework and the inclusion of clinical specialties to meet the job market demand. Palm Beach County is the third largest county in Florida, home to 1.6 million people, a number that expands significantly during tourist season.

Our business partners and community of interest have made clear their wish for expanding educational opportunities to provide pathways for growth for personnel and provide improved patient care and safety to our community. Evidence of these recommendations is provided in BPC minutes (Appendix A- BPC Roster and Appendix B- BPC Minutes).

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.

The American Society of Radiologic Technologists (ASRT) has adopted the following statements related to education in medical imaging (Appendix C):

- **Level of Education for the Medical Imaging and Radiation Therapy Profession**

It is the position of the American Society of Radiologic Technologists that the baccalaureate degree is the professional level of medical imaging and radiation therapy education if it contains related upper-division coursework.

- **Degree Requirements for Medical Imaging and Radiation Therapy Program Directors and Clinical Coordinators**

It is the position of the American Society of Radiologic Technologists that medical imaging and radiation therapy program directors hold a minimum of a master's degree and that clinical coordinators hold a minimum of a baccalaureate degree.

- **Entry Level of Education for Radiation Therapists**

It is the position of the American Society of Radiologic Technologists that the baccalaureate degree is the entry-level for radiation therapists.

- **Federal Minimum Standards for Medical Imaging and Radiation Therapy**

It is the position of the American Society of Radiologic Technologists that the U.S. Congress should enact federal minimum standards of education and certification for all individuals performing medical imaging or planning and/or delivering radiation therapy. Such standards should be, at the minimum, equivalent to those established for educational accreditation by

the Joint Review Committees or equivalent and certification by certification agencies recognized by the ASRT.

This program will prepare individuals to advance their skills and meet the growing demand for multi-credentialed imaging professionals. Specifically, this program provides tracks of instruction in Leadership, CT, MRI, Interventional Radiology, Mammography, and Echocardiography.

Three national organizations in medical imaging support this change in the level of education:

1. American Society of Radiologic Technologists (ASRT) for the professional level of practice in the industry (Appendix C
2. ).
3. Joint Review Committee on Education in Radiologic Technology (JRCERT) requires individuals in full-time teaching roles to possess a bachelor's degree or higher (Appendix C).
4. American Healthcare Radiology Administrators supports a bachelor's level of education for the Certification in Radiology Administration examination (Appendix C).

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

This program will provide graduates with the skills they need to pursue careers in advanced imaging modalities such as CT, MRI, Interventional radiology, advanced sonography, and leadership. The American Registry of Radiologic Technologists requires a formal education experience to sit for national examinations in these areas. The Association of Healthcare Radiology Administrators requires formal education for the Certification in Radiology Administration (CRA). The pathway to teaching, sales, and management has historically included BS degrees, and imaging technologists were forced to select unrelated majors that did not advance their skills within the discipline. This degree answers the need for imaging personnel to reach the next level in their career. We anticipate 100% placement in industry.

## 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.

	<b>Cost per credit hour</b>	<b>Number of credit hours</b>	<b>Total cost</b>
<b>Tuition &amp; Fees for lower division:</b>	\$ 101.00	84	\$ 8,484
<b>Tuition &amp; Fees for upper division:</b>	\$ 122.85	36	\$ 4,423
<b>Tuition &amp; Fees (Total):</b>		120	\$ 12,907

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).

Click or tap here to enter text.

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.

Institution Name	Cost per credit hour (Tuition & Fees)	Number of credit hours	Total cost
Florida Atlantic University	\$ 203.29	120	\$ 24,395
			\$ -
			\$ -
			\$ -
			\$ -

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.

Institution Name	Cost per credit hour (Tuition & Fees)	Number of credit hours	Total cost
Lynn University (excel error, see line 7)	\$ 1,333.00	120	#REF!
Palm Beach Atlantic University (1015)	\$ 1,233.00	120	\$ 159,960
Keiser University	\$ 733.00	120	\$ 147,960
Everglades University	633	120	\$ 87,960
Lynn University	\$ 1,333.00	120	\$ 159,960

## 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:	60	90	90	90
5.3	Program Student Credit Hours (Resident)	12	12	12	12
5.4	Program Student Credit Hours (Non-resident)				
5.5	Program FTE - Resident (Hours divided by 30)	0.4	0.4	0.4	0.4
5.6	Program FTE - Non-resident (Hours divided by 30)	0	0	0	0
5.7	Total Program FTE	0.4	0.4	0.4	0.4

## 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				
6.3	Number of Graduates Employed				
6.4	Average Starting Salary				

This worksheet will not allow input, it is password protected, information provided in table below.

		Year 1	Year 2	Year 3	Year 4
6.2	Count of Degrees Awarded	n/a	20	20	40
6.3	Number of Graduates Employed	n/a	20	20	40
6.4	Average Starting Salary	n/a	\$75,000	\$75,000	\$75,000

## 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.

		<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>
7.2	Program Expenditures:	\$ 31,551.00	\$ 46,002.00	\$ 76,002.00	\$ 76,002.00
7.2.1	Instructional Expenses	\$ 30,000.00	\$ 30,000.00	\$ 60,000.00	\$ 60,000.00
7.2.2	Operating Expenses	\$ 1,551.00	\$ 16,002.00	\$ 16,002.00	\$ 16,002.00
7.2.3	Capital Outlay	\$ -	\$ -	\$ -	
7.3	Revenue:	\$ 109,080.00	\$ 218,160.00	\$ 278,750.00	\$ 278,750.00
7.3.1	Upper Level - Resident Student Tuition Only	\$ 109,080.00	\$ 218,160.00	\$ 278,750.00	\$ 278,750.00
7.3.2	Upper Level - Nonresident Student Fees Only				
7.3.3	Upper Level - Other Student Fees				
7.3.4	Florida College System Program Funds				
7.3.5	Other Sources				
7.4	Carry Forward:				
7.4.1	Total Funds Available	\$ 109,080.00	\$ 218,160.00	\$ 278,750.00	\$ 278,750.00
7.4.2	Total Unexpended Funds (carry forward)	\$ 77,529.00	\$ 172,158.00	\$ 202,748.00	\$ 202,748.00

\*Please replace the “Year 1” through “Year 4” headers with the corresponding years reported.

## 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.

This program has six distinct areas of concentration, providing technical specialization and attracting students to the general core. The MRI, CT, and Interventional tracks are already well established and have a strong record of performance as Advanced Technical Certificates (ATCs), each with 15 students per term for a total of 45. The addition of concentrations in Leadership, Mammography, and Echocardiography provides an opportunity for another 45 students. Each of these student will also enroll in the core courses for degree completion.

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.

The college has committed to cover the additional costs associated with hiring adjunct instructors for the online coursework. Some areas of concentration, such as CT and MRI, are already underway and will not require additional funding.

## 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.

The faculty within the AS degree program in Radiography and Sonography initiated this proposal in 2012, it was reviewed by industry partners and advanced to the Dean's Council for consideration but declined for implementation. Since that time, the industry has grown and demand for advanced education in medical imaging has increased dramatically. The refreshed proposal was prepared by department faculty and submitted to the Business Partnership Council for input, review, and approval at the meeting in October 2021. The proposal was fine-tuned to include community input and submitted to the Health Science Cluster in October 2021, where it was approved. Next, the proposal was submitted to the Dean's Council in December 2021, where it was approved. Finally, the President's Cabinet approved the proposal in January 2022 and recommended it for consideration by the District Board of Trustees (DBOT). The final DBOT approval was granted in May 2022. The Curriculum Committee reviewed the overall program and each individual course and granted approval in March 2023.

Below is the timeline of the internal planning process:

- October 2021                      Reviewed by Business Partnership Council    Approved



• November 2021	Reviewed by Dean’s Council	Approved
• January 2022	Reviewed by President’s Cabinet	Approved
• April 2022	Reviewed by Health Science Cluster	Approved
• May 2022	Reviewed by District Board of Trustees	Approved
• July 2022	Submitted to SACSCOC	Pending
• Sept 2022	Notice of Intent submitted FI DOE	Approved
• March 2023	Reviewed by Curriculum Committee	Approved

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 board meetings, discussions with advisory committees, briefings from local businesses, consultations with employers, and conducting paper and online surveys.

The external planning process is ongoing and involves leaders from Palm Beach County hospitals, imaging centers, and industry partners throughout the Treasure Coast. This group is formally recognized by the college as the Business Partnership Council and they serve to advise the college in matters of curriculum, program policy, and development of new initiatives and were initially the funding source for the department (Appendix A).

The Business Partnership Council and Medical Director have strongly recommended the development of the bachelor’s program to provide a continuation of a career ladder, as documented in the attached minutes (Appendix B). The proposed curriculum was reviewed by this council and modified to reflect their input related to current technologies.

Attached are letters of support from area hospital leaders in our service community and medical advisor to document their support and need for this program (Appendix D). Additionally, the Dean and Vice President of Medical Affairs for Florida Atlantic University has provided a letter of support for the proposal (Appendix D).

Below is the timeline of the external planning process:

• April 2016	Recommendation by BPC	Initiated discussion
• October 2017	Recommendation by Medical Director	Initiated planning
• November 2018	Surveyed hospital directors	Initiated proposal
• April 2019	Dean’s Council declined	Discussion continues
• October 2020	Advanced Technical Certificates expanded	Approved
• April 2021	Revisit bachelor’s proposal revised	Approved
• October 2021	Proposal modified and submitted to Dean’s	Approved
• April 2022	Curriculum revision/concentrations defined	Approved
• October 2022	Planning for admissions/accreditation	Approved
• April 2023	Discussion of admission/transfer/advising	Approved

<p>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.</p>
<p>9.3.1 Public Universities in College’s Service District</p>
<p>Date(s): March 2022</p> <p>Institution(s): Florida Atlantic University</p> <p>Activity Descriptions and Outcomes: Palm Beach State College has an open dialogue with Florida Atlantic University. They have provided a letter of support from the Medical College (Appendix X).</p> <p><a href="#">Click or tap here to enter text.</a></p>
<p>9.3.2 Regionally Accredited Institutions in College’s Service District</p>
<p>Date(s): May 2022</p> <p>Institution(s): Keiser University, Lynn University, Palm Beach Atlantic University, and Everglades University</p> <p>Activity Descriptions and Outcomes: The Notice of Intent process includes these institutions. They do not offer Medical Imaging instruction.</p>
<p>9.3.3 Institutions outside of College’s Service District (If applicable)</p>
<p>Date(s): N/A</p> <p>Institution(s): <a href="#">Click or tap here to enter text.</a></p> <p>Activity Descriptions and Outcomes: n/a</p>

## PROGRAM IMPLEMENTATION TIMELINE

10.1	Indicate the date the notice was initially posted in APPRiSe.	September 2022
10.2	Indicate the date of District Board of Trustees approval.	May 10, 2022
10.3	Indicate the date the Notice of Intent (NOI) was submitted to DFC.	September 27, 2022
10.4	Indicate the date the completed proposal was submitted to DFC.	April 2023
10.5	<p>Indicate the date the proposal is targeted for State Board of Education (SBOE) consideration.</p> <p>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 <a href="#">next SBOE meeting</a>.</p>	September 2023
10.6	Indicate the date the program is targeting for SACSCOC approval (if applicable).	January 2024
10.7	Indicate the date the program is targeting initial teacher preparation program approval (if applicable).	Click or tap here to enter text.
10.8	Indicate the targeted date that upper-division courses are to begin.	January 2024

## FACILITIES AND EQUIPMENT SPECIFIC TO PROGRAM AREA

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

The college has sufficient facilities to support the expansion of medical imaging education. The upper division core component of the program will be delivered online, with the clinical elective courses being completed in person. Clinical education will be offered in over 25 local hospitals and imaging centers. PBSC currently has established an affiliation with these hospital and outpatient imaging centers for lower division programs. (Appendix A).

The college also provides adequate space for faculty offices and workrooms. Each full-time faculty member has an assigned private office space. Each building has an adjunct faculty workroom with copiers, computers, phones, and other support materials. The college also provides library resources, computers, and study space for students. Student learning labs for writing support are also available.

The college's existing facilities are sufficient to accommodate the delivery of the bachelor's degree program without impact to our current programs, faculty or students.

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

No new facilities are anticipated.

## LIBRARY AND MEDIA SPECIFIC TO PROGRAM

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

**Palm Beach State College houses library services on each of its five campuses and offers both intercampus and interlibrary loans through library networks to ensure students and faculty have access to a wide variety of learning resources. The current library and learning resources that support the Radiography, Diagnostic Medical Sonography and other Health Sciences program are adequate to meet the needs of the Bachelor of Science in Medical Imaging program. No additional discipline-specific resources are needed.**

### **Electronic Databases**

• **CINAHL Complete (EBSCO):** The world's most comprehensive source of full text for nursing & allied health journals, providing full text for more than 1,300 journals indexed in CINAHL. This authoritative file contains full text for many of the most used journals in the CINAHL index, with no embargo. CINAHL® Complete is the definitive research tool for all areas of nursing & allied health literature.

• **MEDLINE with Full Text:** MEDLINE with Full Text is an indispensable tool for medical research

providing full text for top-tier medical journals. These top journals cover a wide range of subjects within the biomedical and health fields containing information needed by doctors, nurses, health professionals and researchers engaged in clinical care, public health and health policy development. Includes Subject Headings that follow the structure of the Medical Subject headings (MeSH) used by the National Library of Medicine.

- **Gale OneFile: Health and Medicine:** Created specifically for students, knowledgeable consumer health researchers, and health care professionals, Gale OneFile: Health and Medicine is the perfect resource for up-to-date information on the complete range of health care topics. With more than 2,500 embargo-free, full-text periodicals, reference books, pamphlets, and hundreds of videos demonstrating medical procedures and live surgeries, Gale OneFile: Health and Medicine ensure that researchers get current, scholarly, comprehensive answers to health-related questions.

- **Gale Health and Wellness:** Gale Health and Wellness offers 24/7 access to full-text medical journals, magazines, reference works, multimedia, and much more. Perfect for researchers at all levels, this comprehensive consumer health resource provides authoritative information on the full range of health-related issues, from current disease and disorder information to in-depth coverage of alternative medical practices.

- **Health Source – Consumer Edition:** This full-text database covers a wide variety of subjects, including information on specific diseases as well as overall health topics. Subjects include fitness, nutrition, diabetes, aging, women's health, children's health, and more.

- **Additionally, with Health Source: Consumer Edition,** users have access to Clinical Reference Systems reports, in both English and Spanish, and Merriam-Webster's Medical Desk Dictionary, as well as abstracts and indexing for nearly 180 general health, nutrition, and professional health care publications.

- **Nursing Journals@Ovid:** Comprehensive evidence-based database that covers a wide range of medical, nursing, and health science specialties, and includes a unique suite of information that's been analyzed, appraised, and prepared by expert reviewers at JBI. Includes peer-reviewed journal articles on systematic review protocols and systematic reviews of healthcare research that follow the JBI methodology.

- **PubMed:** PubMed was developed by the National Center for Biotechnology Information (NCBI). It was developed in conjunction with publishers of biomedical literature as a search tool for accessing literature citations and linking to full-text journals on the websites of participating publishers.

- **R2 Digital Library:** The R2 Digital Library is a market-leading eBook platform for health science collections featuring a comprehensive collection of medical, nursing, and allied health eBooks presented through a clean and intuitive interface.

- **Sage Journals:** SAGE is the world's 5th largest journal publisher. Their portfolio includes more than 645 journals spanning the Humanities, Social Sciences, Science, Technology, and Medicine, and more than 280 are published on behalf of 225 learned societies and institutions. The latest content and journal portfolios can be easily navigated through SAGE Discipline Hubs, including Science, Technical, and medical subject areas.

- **Salem Press:** Salem Online brings online access to Salem Press' award-winning reference works. Salem Online is a collection of electronic books, including Health and Careers, that has a

Wikipedia-style interface, making it simple to use while also being much more credible.

- **ScienceDirect:** The Health and Life Sciences collection provides access to over 2,000 high-quality, peer-reviewed journals published by Elsevier Science. This collection covers education, reference information, and decision support — keeping you up to date on medical developments to stimulate research and improve patient care.

- **Taylor and Francis:** Taylor & Francis Online provides access to over 1 million journal articles and access to 20,000 e-books for the academic, professional, and business communities. The Medical Library covers over 30 specialist areas of practice in 4 key areas, connecting users with over 200 peer-reviewed journals.

- **Visible Body Anatomy & Physiology and Human Anatomy Atlas (OVID):** A comprehensive 3D atlas of the human body. Includes the complete male and female gross anatomy with thousands of 3D models that span 11 systems: nervous, skeletal, circulatory, muscular, digestive, urinary, lymphatic, endocrine, and reproductive.

- **Anatomy TV (Primal Pictures):** Derived from genuine medical scan data that has been interpreted by a team of Primal anatomists and then translated into three-dimensional images by an expert team of graphics specialists. The anatomy visuals are accompanied by three-dimensional animations that demonstrate function, biomechanics, and surgical procedures through 19 body system modules. Includes comprehensive text, clinical and case studies, learning objectives, and quizzes - all the online, supplemental material needed to support a 2-semester anatomy and physiology course.

2. Discipline-specific refereed journals:

- A publication search of the library's electronic journal holdings shows that faculty and students have access to over 5000 peer-reviewed journals in the Health and Medicine disciplines.

- An article search for the phrase "radiology" in the library catalog located 11,204 full-text articles from academic journals, 4963 articles from magazines, and 6198 articles from newspapers.

3. Primary source materials:

- A subject heading search of "radiology" in the library catalog shows that students and faculty have access to over 100 medical imaging books at the Palm Beach Gardens Campus library with additional titles available collegewide.

- The PBSC libraries have 11,743 books in the Class R-Medicine (Library of Congress) classifications. The libraries are continually acquiring new print and electronic books.

- Students can also request books from other Florida state colleges and universities using the UBorrow option available through the library catalog or by placing requests through interlibrary loan.

12.2 Describe the new library and media resources that will be needed for the program (if applicable).

## 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).

This program will provide a pathway to upper-division completion for individuals holding an associate of science degree in Radiography, Sonography, Nuclear Medicine, or Radiation Therapy. Only students enrolling in a clinical course within their respective area of concentration will be required to provide background checks, health screening, and immunizations as required by hospital affiliates.

No new library resources are anticipated.

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

Approximately 60 percent of the core required courses 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
15:1	15:1	15:1

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.

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).

Valencia College- 51.0911 Requires MAC 1105 and BSC 2085/lab.

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.

[Click or tap here to enter text.](#)

13.7 The Excel spreadsheets below 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.

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.

All students admitted to the program will complete the 36 hours of general education in compliance with state standards.

All students will present/transfer 48 credits of technical core from an AS degree program in Radiography, Sonography, Nuclear Medicine, or Radiation Therapy.

All students will complete the 21 credits of the upper division program core.

All students will select a concentration and complete 15 credits in their chosen area of study.

The program's total credits are 120.

Appendix E provides further information about state articulation for lower division coursework and the ASRT curriculum frameworks for bachelors level education.

Appendix F provides the overall curriculum outline with course descriptions.



13.7.2	<b>Program of Study for Students with A.S./A.A.S. Degree</b>	
Term 1	Course Title	Credit Hours
ENC/SPC	Communications GE	9
HUM	Humanities GE	6
MATH	Mathematics GE	6
BSC	Science GE	9
Soc	Social Science/Civic Literacy GE	6
	Total Term Credit Hours	36
Term 2	Course Title	Credit Hours
RTE		
SON	AS Technical Core	48
NMT		
Rad Therapy		
	Total Term Credit Hours	48
Term 3	Course Title	Credit Hours
RTE 4213	Radiology Information Systems PC	3
RTE 4785	Advanced Pathophysiology in Medical Imaging PC	3
SON 3672	Ethics and Law in Diagnostic Imaging PC	3
RTE 3205	Leadership and Management in Medical Imaging PC	3
	Total Term Credit Hours	12
Term 4	Course Title	Credit Hours
HSA 4702	Research Methods and Information Literacy PC	3
RTE 4903	Directed Capstone Experience Medical Imaging PC	3
RTE 4474	Quality Management and Compliance PC	3
	Total Term Credit Hours	9
Term 5	Course Title	Credit Hours
RTE 3253	Teaching in the Health Profession (Leadership Concentration)	3
MAN 3301	Human Resources Management (Leadership Concentration)	3
HSA 3160	Health Care Marketing (Leadership Concentration)	3
HSA4109	Principles of Managed Care (Leadership Concentration)	3
RTE 3765	Sectional Anatomy for Medical Imaging (Leadership Concentration)	3
	Total Term Credit Hours	15
Term 6	Course Title	Credit Hours
	Total Term Credit Hours	0
	<b>Program Total Credit Hours:</b>	<b>120</b>

<b>13.7.2 Program of Study for Students with A.S. Degree (CT Concentration)</b>		
<b>Term 1</b>	<b>Course Title</b>	<b>Credit Hours</b>
ENC/SPC	Communications (GE)	9
HUM	Humanities (GE)	6
MATH	Mathematics (GE)	6
BSC	Science (GE)	9
Soc	Social Science/Civic Literacy (GE)	6
	Total Term Credit Hours	36
<b>Term 2</b>	<b>Course Title</b>	<b>Credit Hours</b>
RTE		
SON	AS Technical Core	48
NMT		
Rad Therapy		
	Total Term Credit Hours	48
<b>Term 3</b>	<b>Course Title</b>	<b>Credit Hours</b>
RTE 4213	Radiology Information Systems (PC)	3
RTE 4785	Advanced Pathophysiology in Medical Imaging (PC)	3
SON 3672	Ethics and Law in Diagnostic Imaging (PC)	3
RTE 3205	Leadership and Management in Medical Imaging (PC)	3
	Total Term Credit Hours	12
<b>Term 4</b>	<b>Course Title</b>	<b>Credit Hours</b>
HSA 4702	Research Methods and Information Literacy (PC)	3
RTE 4903	Directed Capstone Experience Medical Imaging (PC)	3
RTE 4474	Quality Management and Compliance (PC)	3
	Total Term Credit Hours	9
<b>Term 5</b>	<b>Course Title</b>	<b>Credit Hours</b>
RTE 4116	Advanced Patient Care (CT Concentration)	3
RTE 3765	Sectional Anatomy for Medical Imaging (CT Concentration)	3
RTE 3590	Computed Tomography (CT Concentration)	3
RTE 3942	CT Clinical Education (CT Concentration)	3
	Elective	3
	Total Term Credit Hours	15
<b>Term 6</b>	<b>Course Title</b>	<b>Credit Hours</b>
	Total Term Credit Hours	0
<b>Program Total Credit Hours:</b>		<b>120</b>

13.7.2	<b>Program of Study for Students with A.S. Degree (MRI Concentration)</b>	
Term 1	Course Title	Credit Hours
ENC/SPC	Communications (GE)	9
HUM	Humanities (GE)	6
MATH	Mathematics (GE)	6
BSC	Science (GE)	9
Soc	Social Science/Civic Literacy (GE)	6
	Total Term Credit Hours	36
Term 2	Course Title	Credit Hours
RTE		
SON	AS Technical Core	48
NMT		
Rad Therapy		
	Total Term Credit Hours	48
Term 3	Course Title	Credit Hours
RTE 4213	Radiology Information Systems (PC)	3
RTE 4785	Advanced Pathophysiology in Medical Imaging(PC)	3
SON 3672	Ethics and Law in Diagnostic Imaging (PC)	3
RTE 3205	Leadership and Management in Medical Imaging (PC)	3
	Total Term Credit Hours	12
Term 4	Course Title	Credit Hours
HSA 4702	Research Methods and Information Literacy (PC)	3
RTE 4903	Directed Capstone Experience Medical Imaging (PC)	3
RTE 4474	Quality Management and Compliance (PC)	3
	Total Term Credit Hours	9
Term 5	Course Title	Credit Hours
RTE 3591	MRI I (MRI Concentration)	3
RTE 3592	MRI II (MRI Concentration)	3
RTE 3943L	MRI Clinical Ed I (MRI Concentration)	3
RTE 3944L	MRI Clinical Ed II (MRI Concentration)	3
RTE 3765	Sectional Anatomy for Medical Imaging (MRI Concentration)	3
	Total Term Credit Hours	15
Term 6	Course Title	Credit Hours
	Total Term Credit Hours	0
	<b>Program Total Credit Hours:</b>	<b>120</b>

13.7.2	<b>Program of Study for Students with A.S. Degree (Interventional Rad Concentration)</b>	
Term 1	Course Title	Credit Hours
ENC/SPC	Communications (GE)	9
HUM	Humanities (GE)	6
MATH	Mathematics (GE)	6
BSC	Science (GE)	9
Soc	Social Science/Civic Literacy (GE)	6
	Total Term Credit Hours	36
Term 2	Course Title	Credit Hours
RTE		
SON	AS Technical Core	48
NMT		
Rad Therapy		
	Total Term Credit Hours	48
Term 3	Course Title	Credit Hours
RTE 4213	Radiology Information Systems (PC)	3
RTE 4785	Advanced Pathophysiology in Medical Imaging (PC)	3
SON 3672	Ethics and Law in Diagnostic Imaging (PC)	3
RTE 3205	Leadership and Management in Medical Imaging (PC)	3
	Total Term Credit Hours	12
Term 4	Course Title	Credit Hours
HSA 4702	Research Methods and Information Literacy (PC)	3
RTE 4903	Directed Capstone Experience Medical Imaging (PC)	3
RTE 4474	Quality Management and Compliance (PC)	3
	Total Term Credit Hours	9
Term 5	Course Title	Credit Hours
RTE 3582	Interventional Radiology (Interventional Concentration)	3
RTE 3583L	Interventional Rad Clinical Education (Interventional Concentration)	3
RTE 4116	Advanced Patient Care (Interventional Concentration)	3
RTE 3765	Sectional Anatomy for Medical Imaging (Interventional Concentration)	3
	Elective (Interventional Concentration)	3
	Total Term Credit Hours	15
Term 6	Course Title	Credit Hours
	Total Term Credit Hours	0
	<b>Program Total Credit Hours:</b>	<b>120</b>

13.7.2	<b>Program of Study for Students with A.S. Degree (Mammography Concentration)</b>	
Term 1	Course Title	Credit Hours
ENC/SPC	Communications (GE)	9
HUM	Humanities (GE)	6
MATH	Mathematics (GE)	6
BSC	Science (GE)	9
Soc	Social Science/Civic Literacy (GE)	6
	Total Term Credit Hours	36
Term 2	Course Title	Credit Hours
RTE		
SON	AS Technical Core	48
NMT		
Rad Therapy		
	Total Term Credit Hours	48
Term 3	Course Title	Credit Hours
RTE 4213	Radiology Information Systems (PC)	3
RTE 4785	Advanced Pathophysiology in Medical Imaging (PC)	3
SON 3672	Ethics and Law in Diagnostic Imaging (PC)	3
RTE 3205	Leadership and Management in Medical Imaging (PC)	3
	Total Term Credit Hours	12
Term 4	Course Title	Credit Hours
HSA 4702	Research Methods and Information Literacy (PC)	3
RTE 4903	Directed Capstone Experience Medical Imaging (PC)	3
RTE 4474	Quality Management and Compliance (PC)	3
	Total Term Credit Hours	9
Term 5	Course Title	Credit Hours
RTE 3588	Mammography (Mammography Concentration)	3
RTE 4941L	Mammography Clinical Education (Mammography Concentration)	3
RTE 4116	Advanced Patient Care (Mammography Concentration)	3
SON 3147	Sonography of the Breast (Mammography Concentration)	3
	Elective (Mammography Concentration)	3
	Total Term Credit Hours	15
Term 6	Course Title	Credit Hours
	Total Term Credit Hours	0
<b>Program Total Credit Hours:</b>		<b>120</b>

13.7.2	<b>Program of Study for Students with A.S. Degree (Echocardiography Concentration)</b>	
<b>Term 1</b>	<b>Course Title</b>	<b>Credit Hours</b>
ENC/SPC	Communications (GE)	9
HUM	Humanities (GE)	6
MATH	Mathematics (GE)	6
BSC	Science (GE)	9
Soc	Social Science/Civic Literacy (GE)	6
	Total Term Credit Hours	36
<b>Term 2</b>	<b>Course Title</b>	<b>Credit Hours</b>
RTE		
SON	AS Technical Core	48
NMT		
Rad Therapy		
	Total Term Credit Hours	48
<b>Term 3</b>	<b>Course Title</b>	<b>Credit Hours</b>
RTE 4213	Radiology Information Systems (PC)	3
RTE 4785	Advanced Pathophysiology in Medical Imaging (PC)	3
SON 3672	Ethics and Law in Diagnostic Imaging (PC)	3
RTE 3205	Leadership and Management in Medical Imaging (PC)	3
	Total Term Credit Hours	12
<b>Term 4</b>	<b>Course Title</b>	<b>Credit Hours</b>
HSA 4702	Research Methods and Information Literacy (PC)	3
RTE 4903	Directed Capstone Experience Medical Imaging (PC)	3
RTE 4474	Quality Management and Compliance (PC)	3
	Total Term Credit Hours	9
<b>Term 5</b>	<b>Course Title</b>	<b>Credit Hours</b>
RTE 4116	Advanced Patient Care (Adult Echocardiography Concentration)	3
SON 3220	Advanced Sonographic Imaging (Adult Echocardiography Concentration)	3
SON 3402	Intro to Electrocardiography (Adult Echocardiography Concentration)	1
SON 3404	Echocardiography 1 (Adult Echocardiography Concentration)	3
SON 4405	Echocardiography 2 (Adult Echocardiography Concentration)	3
	Total Term Credit Hours	13
<b>Term 6</b>	<b>Course Title</b>	<b>Credit Hours</b>
SON 4945L	Adult Cardiac Clinical Education (Adult Echocardiography Concentration)	2
	Total Term Credit Hours	2
	<b>Program Total Credit Hours:</b>	<b>120</b>

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.

This program is open to all students who possess the AS degree in Radiography, Sonography, Nuclear Medicine, or Radiation Therapy and the associated national credential.

### PROGRAM TERMINATION

14.1 Provide a plan of action if the program is terminated in the future, including teach-out alternatives for students.

The college is fully committed to a teach out period should the program be discontinued. Alternately, the college does offer a BAS in Health Care Administration that closely aligns with this program and provides an option for students should this occur.

### 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.

Appendices attached: Appendix A: Business Partnership Council- clinical affiliates; Appendix B: BPC Minutes- documenting development process and involvement of community; Appendix C: Statements from national organizations supporting higher level of education in field; Appendix D: Letters of Support from Radiology leaders, physicians and Florida Atlantic Univ.; Appendix E: FL DOE and ASRT Curriculum Frameworks- documenting compliance in development; and Appendix F: Program Curriculum with Course Descriptions.

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.

**None noted.**