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Cover Sheet for In-State Institutions
New Program or Substantial Modification to Existing Program

Institution Submitting Proposal	Garrett College

Each action below requires a separate proposal and cover sheet.

- (●) New Academic Program
- ( ) New Area of Concentration
- ( ) New Degree Level Approval
- ( ) New Stand-Alone Certificate
- ( ) Off Campus Program
- ( ) Substantial Change to a Degree Program
- ( ) Substantial Change to an Area of Concentration
- ( ) Substantial Change to a Certificate Program
- ( ) Cooperative Degree Program
- ( ) Offer Program at Regional Higher Education Center

Payment Submitted: (●) Yes ( ) No Payment Type: ( ) R*STARS # (●) Check # 62644 Payment Amount: $850.00 Date Submitted: 7/1/2024

Department Proposing Program	Academic Affairs
Degree Level and Degree Type	Associate of Applied Science Degree
Title of Proposed Program	Radiologic Technology
Total Number of Credits	70
Suggested Codes	HEGIS: 520701 CIP: 510907
Program Modality	(●) On-campus ( ) Distance Education (fully online) ( ) Both
Program Resources	(●) Using Existing Resources ( ) Requiring New Resources
Projected Implementation Date (must be 60 days from proposal submisison as per COMAR 13B.02.03.03)	( ) Fall ( ) Spring (●) Summer Year: 2025
Provide Link to Most Recent Academic Catalog	URL: https://www.garrettcollege.edu/images/academics/credit/catalogs/course-catalog.pdf
Preferred Contact for this Proposal	Name: Christa Bowser Title: Dean of Academic Affairs Phone: (301) 387-3054 Email: christa.bowser@garrettcollege.edu
President/Chief Executive	Type Name: Richard Midcap Signature: [signature] Date: 7/8/24
	Date of Approval/Endorsement by Governing Board: 6/18/2024

Revised 1/2021

Radiologic Technology A.A.S. Degree
Garrett College

A. Centrality to Institutional Mission and Planning Priorities:

1. Provide a description of the program, including each area of concentration (if applicable), and how it relates to the institution's approved mission.

   Garrett College (GC) is proposing a new Associate of Applied Science degree in Radiologic Technology. The new A.A.S. degree is a selective admissions program created to address a critical shortage in this field. The program will provide the region with competent, licensed, and registered diagnostic radiographers. Adding this degree to Garrett College's program offerings marks the first associate degree in allied health at Garrett College.

   This program is central to our mission of "developing engaging, innovative and sustainable curricula, programs and initiatives that are responsive to a changing world." It also aligns with the College's strategic objective to "Provide Garrett College students, credit and noncredit, with innovative, relevant curriculum delivered by dedicated faculty/instructors who remain current in their field of study." (Garrett College FY2021-FY2025 Strategic Plan).

2. Explain how the proposed program supports the institution's strategic goals and provide evidence that affirms it is an institutional priority.

   The College's 2021-2025 Strategic Plan Goal 1 calls for the College to "provide Garrett College students, credit and non-credit, with innovative, relevant curriculum delivered by dedicated faculty/instructors who remain current in their field of study." (FY2021-FY2025 Strategic Plan). The College's mission strives "to offer associate degrees and certificate programs as well as continuing education to meet the transfer, career, workforce development, and lifelong learning needs of our students and the community." This degree is able to achieve that mission.

3. Provide a brief narrative of how the proposed program will be adequately funded for at least the first five years of program implementation. (Additional related information is required in section L.

   The program will require conversion of space for a learning lab, radiography equipment and a faculty hire. Grant funding is being investigated for the start up portion of the program. This will provide for the learning lab creation and the purchase of equipment and supplies. The College will hire a new faculty to deliver the specialized coursework and will incur costs associated with accreditation.

4. Provide a description of the institution's commitment to:

   a) ongoing administrative, financial, and technical support of the proposed program

   b) continuation of the program for a period of time sufficient to allow enrolled students to complete the program.

This program will have a designated coordinator for facilitation. Collaboration will occur with the current STEM department for administrative and financial support. Technical support will be provided by the College's IT Department, and student assistance will be provided by the Learning Commons. JRCERT Certification will be applied for once the program opens. Each cohort group will take two years to complete this program. If something were to occur and the program would need to close, there would be a teach out plan made for the remaining cohort to finish the program.

B. Critical and Compelling Regional or Statewide Need as Identified in the State Plan:

1. Demonstrate demand and need for the program in terms of meeting present and future needs of the region and the State in general based on one or more of the following:
    a) The need for the advancement and evolution of knowledge
    b) Societal needs, including expanding educational opportunities and choices for minority and educationally disadvantaged students at institutions of higher education

    Based on the U.S. Bureau of Labor Statistics Employment Projections program, the need for radiologic technologists and technicians is projected to increase from 222,800 to 235,000 jobs, representing a five percent increase from 2022 to 2032. According to the Maryland Department of Labor, the Maryland Long Term Occupational Projections shows a need for an additional 701 radiologic technologists by the year 2030, an increase of 13.34%. This need is based on the growing size of the older population and the rising prevalence of chronic disease which will lead to greater demand for healthcare services, including diagnostic procedures. More radiologic and MRI technologists will be needed to perform the imaging exams that are essential for making diagnoses and creating treatment plans.

    Falls and associated injuries, such as broken bones or head trauma, are common in older people and require x-rays or computed tomography (CT) scans to assess the extent of harm. In addition, MRI scans are useful for imaging various types of cancers, including of the brain, spine, and liver. As the number of falls and cancer cases rises, these technologists and technicians will be needed to operate the equipment that helps detect, assess, and diagnose these injuries and diseases.

    Sources:

    Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Radiologic and MRI Technologists, at https://www.bls.gov/ooh/healthcare/radiologic-technologists.htm (visited *April 17, 2024*).

    Maryland Department of Labor, Maryland Occupational Projections - 2020-2030 - Workforce Information and Performance, at https://labor.maryland.gov/lmi/iandoproj/maryland.shtml (visited *April 17, 2024*).

    c) The need to strengthen and expand the capacity of historically black institutions to provide high quality and unique educational programs

2. Provide evidence that the perceived need is consistent with the Maryland State Plan for Postsecondary Education.

    a) Statewide Plan Goal #1: Student Access: Ensure equitable access to affordable and high-quality postsecondary education for all Maryland residents.
    b) Statewide Plan Goal #2: Student Success: Promote and implement practices and policies that will ensure student success.
    c) Statewide Plan Goal #3: Innovation: Foster innovation in all aspects of Maryland higher education to improve access and student success.

    The proposed program is well aligned with the 2022 Maryland State Plan for Postsecondary Education. The A.A.S in Radiologic Technology is intended to prepare students to enter the workforce in a critical need field. The long-term success of the College's academic programs attests to their quality and effectiveness.

    Through multiple modality course offerings, students can undertake course-related activities when it is convenient for them, allowing them to participate in and complete their program of study even if their responsibilities/work schedules do not permit regular class attendance. This supports Goal 1, "Access: Ensure equitable access to affordable and quality postsecondary education for all Maryland residents."

    The proposed program is also consistent with Goal 2, "Success: Promote and implement practices and policies that will ensure student success." Completion of a college degree will allow students to progress in their chosen field with proven achievement. Garrett College works diligently to ensure student success with key attributes such as: dedicated advisors, retention alert software, and the collaboration between faculty and student services staff.

    Similarly, the proposed program is consistent with Goal 3, "Innovation: Foster innovation in all aspects of Maryland higher education to improve access and student success," which articulates Maryland's aspiration to be "a national leader in the exploration, development, and implementation of creative and diverse education and training opportunities that will align with state goals, increase student engagement, and improve learning outcomes…" By leveraging technology in innovative ways to make the College's offerings more accessible and interactive, we have removed the "time and place" barrier to education for many students and non-traditional students.

C. Quantifiable and Reliable Evidence and Documentation of Market Supply and Demand in the Region and State:

1. Describe potential industry or industries, employment opportunities, and expected level of entry (*ex: mid-level management*) for graduates of the proposed program.

    Graduates of the Garrett College Radiologic Technology program will be prepared for entry level positions at hospitals as a Radiology Technician. The Maryland Department of Labor reports 3,070 employees in the Radiologic Technologist and Technician field (2022 data). Further statistics show the Western Maryland Workforce region to be comprised of 150 jobs in this field.

Garrett Regional Medical Center is the top employer in Garrett County listed by the Maryland Department of Commerce, and is a place of business a student with this degree could reasonably be employed.

(Radiologic Technologists and Technicians (29-2034) in Western Maryland Workforce Region (state.md.us))

Radiologic Technologists and Technicians (29-2034) in 2022 MARYLAND STATEWIDE

MajorEmployersInGarrettCounty.pdf (maryland.gov)

Ruby Memorial Hospital – Currently has 20 job openings for Radiology Technicians.

2. Present data and analysis projecting market demand and the availability of openings in a job market to be served by the new program.

According to the Maryland Department of Labor, 701 additional individuals trained in Radiology Technology, listed in the chart below, will be needed in Maryland by 2030. That represents an increase of 13.34% over the numbers that were needed in 2020. Assisting individuals in Garrett County interested in this field by enabling them to take their program requirements at Garrett College, and prepare for the certification exam and enter the workforce, or transfer to 4-year college to complete their program will save them time and money by not having to travel outside the region.

Maryland Occupational Projections 2020 - 2030
Associate Degree Level Health Care Programs

	2020	**2030**	**Increase**	**Pct Change**
Radiologic Technologists	5,255	5,956	701	13.34%
TOTAL	124,025	143,430	19,405	

Source: **Maryland Occupational Projections - 2020-2030 - Workforce Information and Performance** http://dllr.maryland.gov/lmi/iandoproj/maryland.shtml

3. Discuss and provide evidence of market surveys that clearly provide quantifiable and reliable data on the educational and training needs and the anticipated number of vacancies expected over the next 5 years.

According to the U.S. Department of Labor, employment in Radiologic Technology is projected to grow faster than the average over the next ten years. Healthcare occupations are projected to add more jobs than any of the other occupational groups. In Maryland alone, as represented in the chart above, an additional 701 Radiologic Technologists will be needed by 2030. Nationally, there will be an increase of 15,400 jobs in this field over the next 10 years. This

projected growth is due to an aging population, leading to greater demand for healthcare services. To meet this demand, colleges must graduate more individuals with the credentials to be employed in this profession. Garrett College's ability to provide the preparation for students to take the certification exam, will assist with preparing more individuals to meet this need. As is seen in many fields, possessing an associate degree and industry recognized certifications will increase employment opportunities.

Source:
Radiologic and MRI Technologists : Occupational Outlook Handbook: : U.S. Bureau of Labor Statistics (bls.gov)

4. Provide data showing the current and projected supply of prospective graduates.

Healthcare jobs will be among the fastest growing in the United States over the next few years, accounting for about 2.3 million new jobs, according to recent projections released by the Bureau of Labor Statistics (BLS). In many states, including Maryland, the projected supply of healthcare workers will be unable to fill demand, according to Mercer's recent U.S. healthcare labor market analysis, which compares future supply and demand of workers to project workforce availability across 50 healthcare occupations through 2026. In 2019-2020, 2,462 associate degrees in healthcare technician programs were awarded by Maryland Community Colleges. That number will have to increase significantly to keep up with Maryland occupational projections for trained individuals in these fields.

Sources:

High Job Growth Expected for US Healthcare – But Where Will the Workers Be? Mercer, LLC.: https://mercer.us/our-thinking/career/healthcare-workforce.html

2021 Data Book. Maryland Higher Education Commission. https://mhec.maryland.gov/publications/Documents/Research/AnnualPublications/2021DataBook.pdf

D. Reasonableness of Program Duplication:

1. Identify similar programs in the State and/or same geographical area. Discuss similarities and differences between the proposed program and others in the same degree to be awarded.

A search of the Maryland Higher Education Commission program inventory database for Radiology based associate degrees indicates that there are eight programs at the community college level in the state. The closest of the three colleges to Garrett is Hagerstown Community College, which is 113 miles from Garrett; therefore, it is highly unlikely that the programs will be competing for the same students. The Garrett program will provide local students an accessible and affordable program near their residence.

2. Provide justification for the proposed program.

   The data provided above demonstrates that there is a shortage of radiologic technologists to fulfill the current and increasing demand in Maryland and in the United States. The approval of this program for Garrett College will help close the gap between the number of positions available and qualified individuals available for hire.

E. Relevance to High-demand Programs at Historically Black Institutions (HBIs)

1. Discuss the program's potential impact on the implementation or maintenance of high-demand programs at HBIs.

   No impact on HBIs is anticipated from this new program.

F. Relevance to the identity of Historically Black Institutions (HBIs)

1. Discuss the program's potential impact on the uniqueness and institutional identities and missions of HBIs.

   No impact on HBIs is anticipated from this new program.

G. Adequacy of Curriculum Design, Program Modality, and Related Learning Outcomes (as outlined in COMAR13B.02.03.10):

1. Describe how the proposed program was established, and also describe the faculty who will oversee the program.

   This program is designed to assist in the need for radiologic technologists in Garrett County and the State of Maryland. In addition, the College desires to break down barriers for students desiring careers in healthcare by developing programs that are local and financially accessible.

   Recently retired biology professor Carolyn Deniker developed this program, with the assistance of biology professor Christa Bowser (Dean of Academic Affairs), and the assistance of current radiologic technologist Wendy James from Garrett Regional Medical Center. Christa Bowser will oversee the program moving forward in conjunction with the new faculty hire who will be brought on board.

2. Describe educational objectives and learning outcomes appropriate to the rigor, breadth, and (modality) of the program.

   Program Learning Outcomes are:

   a) Demonstrate the entry level knowledge, communication skills, and abilities associated with the needs of the profession.

   b) Provide appropriate patient care in the course of radiographic procedures with respect to diverse cultures, values, and beliefs.

c) Utilize appropriate protection and standard precautions while performing routine imagining procedures.

d) Perform as an effective team member and within the ethical framework of the profession.

3. Explain how the institution will:
   a) provide for assessment of student achievement of learning outcomes in the program
   b) document student achievement of learning outcomes in the program

Student Learning Outcomes Assessment is a deliberate, systematic, and collaborative process driven by the College's commitment to improving student learning. It is a purposeful course of action that defines student accomplishments in terms of expected learning outcomes and core competencies. Actual student achievement is measured using established standards. The assessment process is learning-centered and accumulates data from numerous sources to determine what students know, what skills they possess, how they conceptualize, and how they will continue to learn. The overall goal of assessment is to create a quality learning environment using best practices that inspire creativity, innovation, and critical thinking.

The Radiologic Technology program will be evaluated at the course and program level on an annual basis for its first three years. Upon successful progress it will then enter the College's formal and comprehensive program review cycle of every eight years. Data from these processes are used for program improvement. Resource allocation is driven by the needs addressed in the assessment process.

4. Provide a list of courses with title, semester credit hours and course descriptions, along with a description of program requirements.

RADIOLOGIC TECHNOLOGY – ASSOCIATES OF APPLIED SCIENCE DEGREE

CAREER ADVANCEMENT PROGRAM GC CURRICULUM CODE:

INSTITUTIONAL REQUIREMENT: 1

FYE101 First Year Experience..... 1

GER REQUIRED CREDITS:.....19

English Composition

ENG101 Comp I--Expos Writing 3*

-- Minimum C grade required.

Arts and Humanities

COM 101 Introduction to Communication . 3

GER Arts & Humanities Course 3

Social and Behavioral Sciences

One GER Soc & Behav Sciences Courses [G]... 3

Science

BIO200 Anatomy & Physiology I..... 4

Mathematics

MAT 105 College Algebra..... 3

MAJOR COURSES: 50

BIO103 Medical Terminology..... 3
RAD101 Introduction to Radiology 1
RAD110 Radiologic Technology I 4
RAD111 Radiologic Technology II 4
RAD130 Radiologic Procedures I..... 4
RAD131 Radiologic Procedures II..... 4
RAD140 Clinical Radiology I 3
RAD141 Clinical Radiology II 4
RAD210 Radiologic Technology III 4
RAD211 Radiologic Technology IV 3
RAD230 Radiologic Procedures III..... 3
RAD240 Clinical Radiology III 5
RAD241 Clinical Radiology IV 3
RAD242 Clinical Radiology V 2
RAD280 Ethics and Law in Medical Imaging .. 2
RAD294 Radiologic Technology Capstone 1

TOTAL CREDIT HOURS REQUIRED: 70

**** Minimum C grade required.***

[G] GER Courses must be on the Approved General Education Course list (see page).

RECOMMENDED SEQUENCE

SUMMER

RAD101 Intro to Radiology 1
MAT105 College Algebra 3
TOTAL 4

FALL

FYE101 First Year Experience..... 1
BIO200 Anatomy & Physiology I.....4
RAD110 Radiologic Technology I 4
RAD130 Radiologic Procedures I..... 4
RAD140 Clinical Radiology I 3
TOTAL 16

SPRING

ENG101 Comp I--Expos Writing 3
RAD111 Radiologic Technology II 4
RAD131 Radiologic Procedures II..... 4
RAD141 Clinical Radiology II 4
TOTAL 15

SUMMER

RAD240 Clinical Radiology III 5
TOTAL 5

FALL

BIO103 Medical Terminology 3
COM 101 Introduction to Communication 3
RAD210 Radiologic Technology III 4
RAD230 Radiologic Procedures III..... 3
RAD241 Clinical Radiology IV 3
TOTAL 16

SPRING

GER Arts & Humanities 3
GER Soc & Behav Science..... 3
RAD211 Radiologic Technology IV 3
RAD242 Clinical Radiology V 2
RAD280 Ethics & Law in Med. Imaging 2
RAD294 Radiologic Tech. Capstone 1
TOTAL 14

NOTE: Minimum C+ grade required in all major courses.

Course Descriptions:

BIO103 Medical Terminology (3 credits) This is an introductory course in medical terminology. The course focuses on accurate spelling and pronunciation of terms and building knowledge of basic medical vocabulary with an emphasis on prefixes, suffixes, roots, and combining vowels. Anatomical, physiological, and pathological terminology are covered. Terminology related to the body systems is discussed.

BIO200 Human Anatomy and Physiology I (4 credits) A study of human structure and function with major emphasis based on structure and function, body organization, tissues, body fluids and their regulation, and selected systems, including the integumentary, articular, skeletal, muscular, and nervous. (Science GER)

COM101 Introduction to Communication (3 credits) This course is designed to introduce the student to the fundamentals of human communication and public address. Students will study the basic elements of the communication process; basic techniques of interpersonal communication; elements of speech composition and speech presentation skills applied to informative and persuasive speaking. (Arts and Humanities GER)

ENG101 Composition I-Expository Writing (3 credits) A course in writing expository and research-based essays that emphasize the development of clear theses through various rhetorical modes including description, narration, comparison-contrast, analogy, definition, analysis, classification, argumentation, and persuasion. Students will write and extensively revise before submitting for a grade a minimum of five expository papers, four-to-six typed, double-spaced pages. Additionally, students are strongly encouraged to visit the Writing Center for help with papers prior to turning in work to be graded. As writer voices develop, students use print and nonprint sources to help support theses, leading to writing adhering to MLA guidelines

FYE101 First Year Experience (1 credit) This course facilitates a successful transition for students entering higher education. It connects first-year students to the college environment and academic resources and emphasizes the value of learning and student responsibilities. Designed to equip students with the skills and strategies necessary to take control of their academic lives, to help students develop a better understanding of themselves, and to guide them through the academic and career development process. Emphasis will be placed on academic success, personal growth and self-management, campus/community resources and involvement, effective use of technology, and ethical citizenship through interaction between faculty, staff, students, and the community.

MAT105 College Algebra (3 credits) An introduction to functions from multiple points of view – verbal, graphical, numerical, and symbolic – with an emphasis on using functions to model real-world phenomena. The linear, quadratic, exponential, and logarithmic families of functions are explored in depth. (Mathematics GER)

RAD101 – Introduction to Radiologic Technology (1 credit) This course introduces the duties of a radiologic technologist. Topics include observing patient care, learning how radiology exams are ordered and what happens to them once they are completed, and providing students with a basic understanding of what it means to choose radiologic technologist as a career, including before, during, and after college.

RAD110 - Radiologic Technology I (Patient Care & Exposure I) (4 credits) This course provides a foundation for the practice of radiologic technology including methods of patient care, assessment and safety, ethical practice, and documentation. Theoretical principles and mathematical calculations of basic x-ray production, characteristics of quality radiographs, exposure factors, and control of radiographic image qualities are discussed. Students will have the opportunity to practice skills in the laboratory setting.

RAD111 – Radiologic Technology II (Exposure II & Equipment) (4 credits) This course covers the principles of equipment operation and maintenance of radiographic imaging equipment. It includes x-ray tube maintenance and malfunctions, image intensified and digital fluoroscopic imaging, digital imaging systems, tomographic imaging, automatic exposure control systems, special imaging equipment, and the development of radiographic exposure charts.

RAD130 - Radiologic Procedures I (Procedures & Positioning I) (4 credits) This course covers positioning terminology and anatomy and procedure protocols for chest, abdomen, upper extremities, and lower extremities procedures. Students will demonstrate all of these procedures in the laboratory setting.

RAD131 - Radiologic Procedures (Procedures & Positioning II) (4 credits) This course covers positioning terminology, anatomy and procedure protocols for bony thorax, shoulder, spine, pelvis, pediatric and geriatric imaging. Students will demonstrate all of these procedures in the laboratory setting.

RAD140 – Clinical Radiology I (3 credits) Perform fundamental radiologic procedures of the chest, abdomen, and extremities to include shoulder and pelvis in a supervised clinical setting while practicing infection control, assessment skills, body mechanics, radiation safety, patient education and discharge instructions.

RAD141 – Clinical Radiology II (4 credits) Perform radiologic procedures in a supervised clinical setting to include infection control, assessment skills, patient education and discharge instruction. Demonstrate continued competence of radiographic exams of the extremities, chest, abdomen, shoulder, and pelvis and introduce intermediate exams including spinal column, fluoroscopy, bony thorax and headwork. Students will exhibit critical thinking skills as they pertain to trauma positioning and mobile radiography at the bedside and in the operating room.

RAD210 – Radiologic Technology III (Radiation Safety & Protection) (4 credits) Investigate the principles of the effects of radiation on human cells. Examine the responsibility of the radiographer to protect patients, personnel and the public from the effects of radiation. Discuss and apply calculations of permissible radiation dosage and the effect of laws and regulations on radiation protection.

RAD211 – Radiologic Technology IV (Pathology & QC/Digital Imaging and Acquisition) (3 credits) This course covers terminology, etiology, and disease processes of various pathological disorders, especially as it pertains to radiographic imaging. Systemic classification of diseases and radiographic findings are discussed, emphasizing the relationship between imaging modalities and the diagnosis of disease.

RAD230 - Radiologic Procedures (Procedures & Positioning III) (3 credits) This course covers positioning terminology and anatomy and procedure protocols for contrast studies, fluoroscopy, cranial imaging, and all special views and trauma imaging. Students will demonstrate all of these procedures in the laboratory setting.

RAD240 – Clinical Radiology III (5 credits) Demonstrate continued competence of previously learned radiologic procedures in a supervised clinical setting to include advanced specialized fluoroscopic exams and atypical orthopedic procedures. Apply advanced patient management techniques that include ECG analysis, vital signs, oxygen, and venipuncture skills to enhance the student radiographers' patient care management skills in the clinical setting.

RAD241 – Clinical Radiology IV (3 credits) Perform radiologic procedures in a supervised clinical setting to include routine and specialized procedures. Apply advanced patient management skills in the clinical setting. Modify radiographic positioning and selection of exposure parameters based on patient evaluation and condition.

RAD242 – Clinical Radiology V (2 credits) Demonstrate entry-level practitioner skills in a supervised clinical setting to include global competence in the areas of radiographic positioning, patient assessment, effective communication, exposure parameter settings, and organizational and patient management skills.

RAD280 – Ethics and Law in Medical Imaging (2 credits) This course introduces students to current issues in health care and in Radiologic Technology. A wide range of topics are explored from a theoretical, ethical, social and economic point of view. Professional issues such as interviewing, upper division programs and radiologic technology organizations are also discussed.

RAD294 – Radiologic Technology Capstone (1 credit) This course offers the students the time to prepare themselves for the ARRT certification examination that they must take upon graduating from an accredited radiology program. Students will meet two days each week and will review all material demonstrated throughout their 2-year program at Garrett College. Students will also have the opportunity to attend the annual state conference for additional review.

This program is a selective admission program. All radiologic technology courses require a C+ grade to progress. Remediation will be provided within each course upon any assessment scores below a C+. Students will have a policy and procedure handbook outlining expectations for didactic coursework and clinical experiences.

5. Discuss how general education requirements will be met, if applicable.

   As an Associate of Applied Science degree, general education requirements are mandated, and include a total of 18 credit hours of Arts and Humanities, Science, English Composition, Mathematics, and Social and Behavioral Science courses.

6. Identify any specialized accreditation or graduate certification requirements for this program and its students.

   This program will be seeking JRCERT certification. Students will need to sit for examination to become ARRT certified for employability.

7. If contracting with another institution or non-collegiate organization, provide a copy of the written contract.

   There are no contracting agreements with other educational institutions or non-collegiate organizations.

8. Provide assurance and any appropriate evidence that the proposed program will provide students with clear, complete, and timely information on the curriculum, course and degree requirements, nature of faculty/student interaction, assumptions about technology competence and skills, technical equipment requirements, learning management system, availability of academic support services and financial aid resources, and costs and payment policies.

   The College will provide similar resources to students in the Radiologic Technology program as are provided for other programs. Information regarding curriculum and course requirements, as well as a suggested course sequence that demonstrates program completion is provided via the College website and the Garrett College Catalog. Information about the current learning management system (Blackboard), the availability of academic support services and financial aid resources, and costs and payment policies are found on various pages within the Garrett website and conveyed to students by program advisors.

9. Provide assurance and any appropriate evidence that advertising, recruiting, and admissions materials will clearly and accurately represent the proposed program and the services available.

   The College's Office of Marketing & Creative Services is responsible for the production of all public relations and promotional market materials. This office works collaboratively with College departments to ensure that all public relation announcements, advertisements, recruiting and admissions materials, and other communications contain information that is truthful, accurate, and compliant with College policies. Prior to publication, the appropriate office or department conducts a final review of all information checking for accuracy and truthfulness. The Office of Analytics, Institutional Research and Assessment verifies all data.

   The Office of Marketing and Creative Services publishes a Brand Management guide further ensuring consistency among College communications. This guide addresses print and electronic communication including the College's social media policies.

H. Adequacy of Articulation (as outlined in COMAR 13B.02.03.19)

1. If applicable, discuss how the program supports articulation with programs at partner institutions. Provide all relevant articulation agreements. More information for Articulation Agreements may be found here.

   Contact has been made with Dr. Ester Verhovsek-Hughes, Chair and Professor in the Department of Allied Health Sciences at East Tennessee State University. An invitation from Dr. Verhovsek-Hughes has been received by Garrett College to create an articulation agreement with East Tennessee State University giving Garrett College graduates the opportunity to further their education and to earn a Bachelor's Degree in Radiologic Science. The bachelor's program

at East Tennessee State University is located in the College of Health Sciences in the Department of Allied Health Sciences. Additional information about this program is available at https://www.etsu.edu/crhs/allied-health/uodp_radiologic/default.php.

I. Adequacy of Faculty Resources (as outlined in COMAR 13B.02.03.11).

1. Provide a brief narrative demonstrating the quality of program faculty. Include a summary list of faculty with appointment type, terminal degree title and field, academic title/rank, status (full-time, part-time, adjunct) and the course(s) each faculty member will teach in the proposed program.

Faculty Member	Degree	Discipline	Academic Title/Rank	Courses Taught
Alyssa Tichinel	BS, MS	Biology	Assistant Professor	BIO200
Timothy Foster	BS, MAT	Mathematics	Professor	MAT105
AJ DeLauder	BA, MA, MFA	English Writing for Stage and Screen	Assistant Professor	COM101
Anna James	BA, MFA	English	Associate Professor	ENG101
Dr. Terry Kasecamp	BS, MS, PhD	Psychology	Professor	Behavioral Science
Dr. Michelle Murray	BS, MEd, PhD	Sociology Criminology	Assistant Professor	Sociology
Wendy James	BS, MS, RT(R)(CT)		Pending Program Approval Asst. Professor	Radiologic Technology courses, BIO103

2. Demonstrate how the institution will provide ongoing pedagogy training for faculty in evidenced-based best practices, including training in:

   a) Pedagogy that meets the needs of the students

   Training in pedagogy that meets the needs of students is provided in faculty workshops, curriculum mapping activities within and between programs and general education requirements, annual implementation of assessment results at the course and program level.

b) The learning management system

Trainings for the LMS Blackboard are offered on an open/drop-in schedule for faculty. Many user videos are posted internally. New features, requirements and frequent topics of difficulty are addressed and demonstrated in monthly faculty meetings.

c) Evidenced-based best practices for distance education, if distance education is offered.

The College supports faculty participation in regional and national distance education conferences. The coordinator of distance learning presents topics at each monthly faculty meeting and has instituted required checklists and evaluation of online courses. Results from these are verified in real-time each semester and are incorporated in annual faculty evaluations.

J. Adequacy of Library Resources (as outlined in COMAR 13B.02.03.12).

1. Describe the library resources available and/or the measures to be taken to ensure resources are adequate to support the proposed program.

The Library at Garrett College offers extensive resources for academic research with a large collection that includes books, periodicals, electronic journals, newspapers, audiobooks, CDs, videos, and DVDs. In addition to student computer workstations with Microsoft Office products and internet access for academic projects, the GC library offers extensive services to students including, but not limited to, the following: multiple electronic databases including, ProQuest, Science Resource Center, and Access Science; interlibrary loan services; and on-campus access and 24-hour remote access. These resources are assessed annually to determine what additional reference or library resources may be required.

K. Adequacy of Physical Facilities, Infrastructure and Instructional Equipment (as outlined in COMAR 13B.02.03.13)

1. Provide an assurance that physical facilities, infrastructure and instruction equipment are adequate to initiate the program, particularly as related to spaces for classrooms, staff and faculty offices, and laboratories for studies in the technologies and sciences.

Current physical facilities and infrastructure at Garrett College are adequate to offer the new degree program. A learning lab will be created for this program with appropriate equipment purchased and installed. Classrooms are equipped with the latest and updated instructional equipment which includes computers and audio/visual devices including projectors. Many spaces have the capacity for synchronous and in-person instruction to occur at the same time. Garrett's Information Technology department supports this equipment with software updates and any maintenance or repairs necessary to maintain quality instruction.

Computers are available for students, faculty, and staff use in classrooms, computer labs, and the library. Printing and wireless internet access can be found in all those locations. Wireless internet access is also available in the dormitories. The Testing Center can be used by instructors for students with disability accommodation needs. The advising staff provides course

information that will assist students interested in pursuing the Radiologic Technology field. The College complies with the Americans with Disabilities Act and has the necessary infrastructure and instructional equipment for ADA accommodations. The Office of Student Support Services provides the evaluations for ADA accommodations.

2. Provide assurance and any appropriate evidence that the institution will ensure students enrolled in and faculty teaching in distance education will have adequate access to:

a) An institutional electronic mailing system, and

Garrett College faculty receive an employee e-mail address and access to the College email system on their first day of employment. Students receive a student e-mail address upon enrollment. Students are requested to activate their college e-mail account immediately and must use that e-mail address for all College correspondence. Once activated, this is also the only e-mail address the College will use to contact students. Students are asked to check their college e-mail, even when classes are not in session.

b) A learning management system that provides the necessary technological support for distance education

To facilitate learning, all credit courses use Blackboard, Garrett College's learning management system. Blackboard sites support easy access to course materials, interactions with the instructor and other students, course grades, and much more. Students are automatically enrolled into Blackboard course sites. Faculty members are given Blackboard access and training within their first week of employment. At a minimum, faculty members are required to use Blackboard to post their syllabus, faculty contact information, announcements, and course communications. In addition, the grade book within Blackboard must be used to provide students with a reasonable understanding of the status of their grades throughout the duration of the course.

L **Adequacy of Financial Resources with Documentation** (as outlined in COMAR13B.02.03.14)

1. Complete **Table 1: Resources and Narrative Rationale**. Provide finance data for the first five years of program implementation. Enter figures into each cell and provide a total for each year. Also provide a narrative rationale for each resource category. If resources have been or will be reallocated to support the proposed program, briefly discuss the sources of those funds.

TABLE 1: PROGRAM RESOURCES					
Expenditure Categories	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
1. Reallocated Funds	0	0	0	0	0
2. Tuition/Fee Revenue (c + g below)	74,640	149,280	149,280	149,280	149,280
a. Number of F/T Students	15	30	30	30	30
b. Annual Tuition/Fee Rate	4,976	4,976	4,976	4,976	4,976
c. Total F/T Revenue (a x b)	74,640	149,280	149,280	149,280	149,280
d. Number of P/T Students	0	0	0	0	0
e. Credit Hour Rate	99	99	99	99	99
f. Annual Credit Hour Rate	0	0	0	0	0
g. Total P/T Revenue (d x e x f)	0	0	0	0	0
3. Grants, Contracts, & **Other** External Sources	0	0	0	0	0
4. Other Sources*	0	0	0	0	0
TOTAL (add 1-4)	74,640	149,280	149,280	149,280	149,280

This program will operate with a 12-student cohort, based on available clinical sites already committed. The enrollment can hopefully increase as more clinical opportunities become available. Due to the cohort nature of this program, it is not expected that there will be part time students enrolled. This program does have the opportunity to apply for several grants, and is in the process of doing so. The Appalachian Regional Commission, the Rural Maryland Council, and the Ratcliff Foundation are funding sources being considered. One is federal, one state and one individual. These will hopefully fund start up costs for equipment, supplies and coordinator salary for the first two years of the program. The college will assume these costs if the grants are not awarded.

2. Complete **Table 2: Program Expenditures and Narrative Rationale**. Provide finance data for the first five years of program implementation. Enter figures into each cell and provide a total for each year. Also provide a narrative rationale for each expenditure category.

TABLE 2: PROGRAM EXPENDITURES					
Expenditure Categories*	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
1. Faculty (b + c below)	90,000	90,000	90,000	90,000	90,000
a.# FTE	0	0	0	0	0
b. Total Salary (non-credit instructors)	0	0	0	0	0
c. Total Benefits	0	0	0	0	0
2. Admin Staff (b + c below)	0	0	0	0	0
a.# FTE	0	0	0	0	0
b. Total Salary	0	0	0	0	0
c. Total Benefits	0	0	0	0	0
3. Support Staff (b + c below)	0	0	0	0	0
a. # FTE	0	0	0	0	0
b. Total Salary	0	0	0	0	0
c. Total Benefits	0	0	0	0	0
4. Equipment	0	0	0	0	0
5. Library	0	0	0	0	0
6. New or Renovated Space	0	0	0	0	0
7. Other Expenses (instructional materials)	0	0	0	0	0
TOTAL (Add 1- 7)	**90,000**	**90,000**	**90,000**	**90,000**	**90,000**

Table 2 Narrative

1. New Faculty – one new faculty will be needed for this associate degree program.
2. New Administrative Staff – no new administrative staff will be needed for this degree program.
3. New Support Staff – no new support staff will be needed for this degree program.

4. Technical Support and Equipment – no new materials or support will be needed.
5. Library – no new library resources are needed.
6. New or Renovated Space – no new or renovated space is needed.
7. Other Expenses – there are no other anticipated expenses.

M. Adequacy of Provisions for Evaluation of Program (as outlined in COMAR 13B.02.03.15).

1. Discuss procedures for evaluating courses, faculty and student learning outcomes.
2. Explain how the institution will evaluate the proposed program's educational effectiveness, including assessments of student learning outcomes, student retention, student and faculty satisfaction, and cost-effectiveness.

Garrett College has a formal program review process whereby each of its academic and career programs are formally reviewed on a regular cycle. A new program is reviewed annually for its first three years and then, if successful, falls into the College's formal and comprehensive program review eight-year review cycle. In addition to the program data, the review considers information about faculty performance and all costs related to the program.

The program evaluation will also include the results from student learning outcomes assessment. In addition to college-wide general education student learning outcomes, the College has developed a set of program-level learning outcomes for every transfer and career program. Student learning outcomes are also assessed at the course level within each program. All assessment data is reviewed by the full-time faculty annually. Any corresponding shortcomings across programs is addressed, and course pedagogy altered if deemed necessary.

N. Consistency with the State's Minority Student Achievement Goals
(as outlined in COMAR 13B.02.03.05).

1. Discuss how the proposed program addresses minority student access & success, and the institution's cultural diversity goals and initiatives.

The College recruits in urban areas with large minority populations and approximately 25% of the current student body is comprised of non-white students.

O. Relationship to Low Productivity Programs Identified by the Commission:

1. If the proposed program is directly related to an identified low productivity program, discuss how the fiscal resources (including faculty, administration, library resources and general operating expenses) may be redistributed to this program.

There is no relationship to a low productivity program.

P. Adequacy of Distance Education Programs (as outlined in COMAR 13B.02.03.22)

1. Provide affirmation and any appropriate evidence that the institution is eligible to provide Distance Education.

2. Provide assurance and any appropriate evidence that the institution complies with the C-RAC guidelines, particularly as it relates to the proposed program.

   This is not a Distance Education Program.