PROGRAM ASSESSMENT PLANNING FORM

Program to be assessed:

Title: **Computed Tomography (CT) Advanced Certificate Program**
Division: **Health Sciences**   Department: **Allied Health**   Program Code: **CPCTO**

Type of Award: ☐ A.A.   ☐ A.S   ☐ A.A.S.
☐ Cert.   ☒ Adv. Cert.   ☐ Post-Assoc. Cert.   ☐ Cert. of Completion

Assessment plan:

Learning outcomes to be assessed	Assessment tool	When assessment will take place	Describe population to be assessed	Number of students to be assessed
1. Perform diagnostic Computed Tomography procedures.	RAD 267 – Students will complete 125 procedural competencies by the end of the second clinical semester.	During the end of the second semester of the program.	Students enrolled in RAD 267	All
2. Operate Computed Tomography equipment.	RAD 267 – End-of-Semester Performance Evaluation that demonstrates Technical Aptitude.	During the final semester of the program.	Students enrolled in RAD 267	All
3. Students admitted to the Computed Tomography (CT) program will complete the program.	Completion rates.	During the final semester of the program.	Students admitted to the program.	All
4. Pass the national certification exam.	American Registry of Radiologic Technologists (ARRT) Annual Program Summary Report	One year after the completion of the program.	Students that have completed the program.	All

Scoring and analysis of assessment:

1. Indicate how the above assessment(s) will be scored and evaluated (e.g. departmentally developed rubric, external evaluation, other). Attach the rubric/scoring guide.
   1. Total number of procedural competencies achieved by students will be assessed by program faculty.
   2. Item analysis from clinical education course RAD 267 performance evaluation.
   3. Completion rates will be reviewed to determine student retention.
   4. The ARRT examination is a standardized national certification exam.

2. Indicate the standard of success to be used for this assessment.
   1. Seventy-five percent of students will have earned 125 or more competencies by the end of their RAD 267 Clinical Education course.
   2. Seventy-five percent of students will achieve an "Effective Performance" rating on their RAD 267 Clinical Education performance evaluation.
   3. Ninety percent of the students admitted to the program will complete the program.
   4. Ninety percent of the students that complete the program will pass their certification exam on the first attempt.

3. Indicate who will score and analyze the data (data must be blind-scored).

PROGRAM ASSESSMENT PLANNING FORM

Program faculty will score and analyze the data.

Submitted by:

Name: _____ Date: 4-24-19
    Print/Signature

Dept. Chair: _____ Date: 4/24/19
    Print/Signature

Dean: _____Valerie Greaves_____ Date: 4/29/19
    Print/Signature

                                    Reviewed by C&A Committees 6/4/19

Please return completed form to the Office of Curriculum & Assessment, SC 257.

PROGRAM PROPOSAL FORM

☐ **Preliminary Approval** – Check here when using this form for preliminary approval of a program proposal, and respond to the items in general terms.

☒ **Final Approval** – Check here when completing this form after the Vice President for Instruction has given preliminary approval to a program proposal. For final approval, complete information must be provided for each item.

Program Name: **Division and Department:** **Type of Award:** **Effective Term/Year:** **Initiator:**	Computed Tomography (CT) Advanced Certificate Program Math, Science & Health Division; Allied Health Department (Radiography) ☐ AA ☐ AS ☐ AAS ☐ Cert. ☐ Adv. Cert. ☒ Post-Assoc. Cert. ☐ Cert. of Comp. ___Fall 2012_____ ___Connie Foster_____	**Program Code:** CPCTO **CIP Code:** **5/.0814**

Program Features Program's purpose and its goals. Criteria for entry into the program, along with projected enrollment figures. Connection to other WCC programs, as well as accrediting agencies or professional organizations. Special features of the program.	The purpose of the Computed Tomography (CT) program is to prepare students for the American Registry of Radiologic Technologists' (ARRT) post-primary registry certification examination in computed tomography, as well as for entry-level computed tomography employment. Due to limited space, this program will require a second admission to the program. The criteria for admission in the Computed Tomography program: • Registered radiologic technologist with primary certification in Radiography ARRT (R), Nuclear Medicine ARRT (N), or Radiation Therapy, ARRT (T) and Certified Nuclear Medicine Technologist, CNMT • Graduate of a JRCERT accredited Program • Minimum GPA of 2.7 • Current CPR certification • Completed college physical form by licensed physician • Crime-free criminal background check • Completion of RAD 223 Sectional Anatomy, or an equivalent course, with a grade of B- or better. The projected enrollment is 12 students. The Computed Tomography (CT) program will provide graduates of the Washtenaw Community College Radiography Program with an opportunity to obtain advanced certification in computed tomography (CT). It will also assist ARRT certified radiologic technologists in preparation for advanced Certification in Computed Tomography. This is an advanced specialized field for imaging professionals that is beginning to require technologists to complete a formal educational program. Registered radiologic technologists who complete the computed tomography program will also satisfy the ARRT continuing education requirements for a 2-year period.

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Need	
Need for the program with evidence to support the stated need.	The State of Michigan now requires that unregistered computed tomography (CT) technologists complete 20 hours of training and experience in operating CT equipment, radiation physics, and radiation protection or obtain the advanced certificate in computed tomography from the American Registry of Radiologic Technologist (ARRT). The computed tomography courses will be taught by a certified computed tomography (CT) technologist in the OE 121 radiography lab during the evening and/or weekends. Only a few ancillary items will need to be purchased for this program, i.e. anatomical models, instructional software, which is estimated to cost less than $1,000.00. No dedicated computed tomography x-ray equipment will need to be purchased for the computed tomography program.

Program Outcomes/Assessment	Outcomes	Assessment method
State the knowledge to be gained, skills to be learned, and attitudes to be developed by students in the program. Include assessment methods that will be used to determine the effectiveness of the program.	1. Students completing the Computed Tomography (CT) Program will demonstrate competency in the principles of computed tomography comparable to graduates of other similar national programs. 2. Students admitted to the Computed Tomography (CT) Program will complete the program. 3. Students will express satisfaction with the Computed Tomography (CT) Program.	1. American Registry of Radiologic Technologists (ARRT) Computed Tomography (CT) Certification Examination 2. Graduation rates 3. Graduate Survey

Curriculum	
List the courses in the program as they should appear in the catalog. List minimum credits required. Include any notes that should appear below the course list.	The proposed program courses include: RAD 261 Principles of Computed Tomography (2 credits; 30 contact hours) limited 12 students RAD 263 Practical Computed Tomography (CT) Imaging (2 credits; 30 contact hours): limited 12 students RAD 265 Computed Tomography (CT) Clinical Education I (2 credits; 3 days/week x 7.5 weeks = 180 clinical hours) RAD 266 Advanced Computed Tomography (CT) Imaging (2 credits: 20 contact hours): limited 12 students RAD 267 Computed Tomography (CT) Clinical Education II (3 credits; 3 days/week x 15 weeks = 360 clinical hours) In an effort to accommodate working radiologic technologists, classroom instruction will be offered in a blended-format in the radiography lab in OE 121. Clinical education will be conducted at local hospitals and a number of affiliated health care facilities.

Budget		START-UP COSTS	ONGOING COSTS
Specify program costs in the following areas, per academic year:	Faculty	$.	$.
	Training/Travel	.	.
	Materials/Resources	2000 .	2000 .
	Facilities/Equipment	.	.
	Other	.	.
	TOTALS:	**$ 2,000.00**	**$2000 .**

Program Description for Catalog and Web site	The computed tomography (CT) program is a post-associate advanced certificate program that is designed for registered radiologic technologists (ARRT), radiation therapists (ARRT), and nuclear medicine technologists (ARRT or NMTCB). This program offers the didactic and clinical experience that will provide students with the knowledge and skills that are required to become an entry-level computed tomography technologist. The curriculum is based on the recommended American Society of Radiologic Technology (ASRT) computed tomography guidelines. Upon successful completion of the computed tomography program, students are eligible to take the ARRT post-primary certification examination in computed tomography.
Program Information	Accreditation/Licensure – The program will be accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT) Advisors – Connie Foster and William Nelson Advisory Committee – Radiography Advisory Committee Admission requirements – Formal admission to the program Articulation agreements – No articulation agreements Continuing eligibility requirements -

Assessment plan:

Program outcomes to be assessed	Assessment tool	When assessment will take place	Courses/other populations	Number students to be assessed
Demonstrate competency in the principles of mammography comparable to graduates of other similar national programs.	American Registry of Radiologic Technologists (ARRT) Computed Tomography (CT) Certification Examination	Within 6 months of graduation	Program graduates	12 students
Students admitted to the Computed Tomography (CT) Program will complete the program.	Graduation rates	Within 6 months of graduation	Program graduates	12 students
Students will express satisfaction with the Computed Tomography (CT) Program.	Graduate Survey	Within 6 months of graduation	Program graduates	12 students

Scoring and analysis plan:

1. Indicate how the above assessment(s) will be scored and evaluated (e.g. departmentally developed rubric, external evaluation, other). Attach the rubric.

    1. ARRT examination is a standardized national exam.
    2. Graduate rates will be reviewed to determine student retention.
    3. A graduate survey will be administered to all students at the end of the program and will be blind-scored via Blackboard.

2. Indicate the standard of success to be used for this assessment.

    1. ARRT examination: Students will equal or exceed the national average on the ARRT Computed Tomography (CT) Certification Examination.
    2. 90% of the students admitted to the program will complete the program.
    3. Graduates will express satisfaction with the didactic and clinical courses.

3. Indicate who will score and analyze the data.

    WCC full-time and part-time faculty will score and analyze the data.

4. Explain how and when the assessment results will be used for program improvement.

The radiography program faculty members and the part-time computed tomography (CT) instructors will meet to review and discuss the assessment results after the completion of the Computed Tomography (CT) program. The assessment results will be used to revise the computed tomography (CT) courses that will be offered during the next Fall and Winter terms.

REVIEWER	PRINT NAME	SIGNATURE	DATE
Department Chair/Area Director	Connie Foster	*Connie Foster*	1/26/12
Dean	Martha Showalter	*Martha Showalter*	1/26/12
Vice President for Instruction ☐ Approved for Development ☐ Final Approval	Stuart Blacklaw	*Stuart Blacklaw*	3/23/12
President	Rose B. Bellanca	*R B Bellanca*	3/23/12
Board Approval			4/24/12

Program Information Report

School of Nursing and Health Sciences

Find your place in the growing field of health care. The School of Nursing and Health Sciences provides a variety of programs designed to prepare the student for entry-level positions in dental assisting, pharmacy technology, physical therapist assistant, radiography, nursing assistant or professional nursing. The health care foundations certificate provides a starting point for prospective nursing and health science students or provides the general education courses to move from completion of a certificate program into an associate degree program.

Washtenaw Community College offers programs at several levels for students who want to begin new careers, or advance in their existing careers. The first level is the certificate, which can vary from nine to thirty-six credits, depending on the field. Certificates generally prepare students for entry-level jobs.

After completing a certificate, students can progress to the next level, the advanced certificate. The credit hours required for these programs also vary. This type of certificate provides a more specialized level of skill development, and often allows students to upgrade their positions at their places of employment.

The next level, an Associate in Applied Science, is available for some programs. For some career fields, it is possible to earn a certificate, an advanced certificate, and an Associate in Applied Science degree in the same field. In these cases, the credit hours from the certificate and advanced certificate can be applied to the credit hours needed for the Associate in Applied Science degree.

Alternatively, students can earn an AAS in Occupational Studies by completing a certificate, an advanced certificate and General Education requirements.

Radiography

Prepare for a career as a radiographer, operating medical imaging equipment.

Computed Tomography (CPCTO)
Post-Associate Certificate
Program Effective Term: Fall 2012

The Computed Tomography (CT) program is a post-associate advanced certificate program that is designed for registered radiologic technologists (ARRT), radiation therapists (ARRT), and nuclear medicine technologists (ARRT or NMTCB). This program offers the didactic and clinical experience that will provide students with the knowledge and skills that are required to become an entry-level computed tomography technologist. The curriculum is based on the recommended American Society of Radiologic Technology (ASRT) computed tomography guidelines. Upon successful completion of the Computed Tomography program, students are eligible to take the ARRT post-primary certification examination in computed tomography.

Program Admission Requirements:
The criteria for admission Admission to the Computed Tomography program:
-Registered radiologic technologist with primary certification in Radiography ARRT (R), Nuclear Medicine ARRT (N), or Radiation Therapy, ARRT (T) and Certified Nuclear Medicine Technologist, CNMT
-Graduate of a JRCERT accredited program
-Minimum GRA of 2.7
-Current CPR certification
-Completed college physical form by licensed physician
-Crime-free criminal background check
-Completion of RAD 223 Sectional Anatomy, or an equivalent course, with a grade of B- or better.

Major/Area Requirements		Credits
RAD 262	Principles of Computed Tomography (CT)	2
RAD 263	Practical Computed Tomography (CT) Imaging	2
RAD 265	Computed Tomography (CT) Clinical Education I	2
RAD 266	Advanced Computed Tomography (CT) Imaging	2
RAD 267	Computed Tomography (CT) Clinical Education II	3

Minimum Credits Required for the Program: **11**

PROGRAM PROPOSAL FORM

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☐ **Final Approval** – Check here when completing this form after the Vice President for Instruction has given preliminary approval to a program proposal. For final approval, complete information must be provided for each item.

Program Name:	Computed Tomography (CT) Certificate Program	**Program Code:**
Division and Department:	Math, Science & Health Division; Allied Health Department (Radiography)	*CPCTO*
Type of Award:	☐ AA ☐ AS ☐ AAS, ☐ Cert. ☐ Adv. Cert. ☒ Post-Assoc. Cert. ☐ Cert. of Comp.	
Effective Term/Year:	Fall 2012	**CIP Code:**
Initiator:	Connie Foster	

Program Features	
Program's purpose and its goals.	The purpose of the Computed Tomography (CT) program is to prepare students for the American Registry of Radiologic Technologists' (ARRT) post-primary registry certification examination in computed tomography, as well as for entry-level computed tomography employment.
Criteria for entry into the program, along with projected enrollment figures.	The criteria for admission in the Computed Tomography program: • Registered radiologic technologist with primary certification in Radiography, Nuclear Medicine or Radiation Therapy • Graduate of a JRCERT accredited Program • Minimum GPA of 2.7 • Current CPR certification • Completed college physical form by licensed physician • Crime-free criminal background check The projected enrollment is 12 students.
Connection to other WCC programs, as well as accrediting agencies or professional organizations.	The Computed Tomography (CT) program will provide graduates of the Washtenaw Community College Radiography Program with an opportunity to obtain advanced certification in computed tomography (CT). It will also assist ARRT certified radiologic technologists in preparation for advanced Certification in Computed Tomography.
Special features of the program.	This is an advanced specialized field for imaging professionals that is beginning to require technologists to complete a formal educational program. Registered radiologic technologists who complete the computed tomography program will also satisfy the ARRT continuing education requirements for a 2-year period.
Need	
Need for the program with evidence to support the stated need.	The State of Michigan now requires that unregistered computed tomography (CT) technologists complete 20 hours of training and experience in operating CT equipment, radiation physics, and radiation protection or obtain the advanced certificate in computed tomography from the American Registry of Radiologic Technologist (ARRT). The computed tomography (CT) courses will be taught by part-time faculty. In order to accommodate working technologist, the CT courses will be taught in the radiography lab in OE 121 during the evening and/or weekends. Only a few ancillary items will need to be purchased for this program, i.e. anatomical models, instructional software, which is estimated to cost less than $1,000.00. No dedicated computed tomography x-ray equipment will need to be purchased for the computed tomography program.

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Program Outcomes/Assessment	Outcomes	Assessment method
State the knowledge to be gained, skills to be learned, and attitudes to be developed by students in the program. Include assessment methods that will be used to determine the effectiveness of the program.	1. Operate the CT scanner and its ancillary devices. 2. Prepare and position patients for CT scans. 3. Process images using conventional film/screen systems and digital imaging systems. 4. Perform quality control tests for CT imaging system performance. 5. Demonstrate professional conduct and attitudes.	1.

Please return completed form to the Office of Curriculum & Assessment and email an electronic copy to sjohn@wccnet.edu for posting on the website.

Curriculum	
List the courses in the program as they should appear in the catalog. List minimum credits required. Include any notes that should appear below the course list.	The proposed program courses include: RAD 223: Sectional Anatomy (2 credits; 30 contact hours): Prerequisite course for CT program RAD 262 Principles of Computed Tomography (2 credits; 30 contact hours) limited 12 students RAD 263 CT Protocols I (2 credits; 30 contact hours): limited 12 students RAD 264 CT Clinical Educations I (3 credits; 3 days/week x 15 weeks = 360 clinical hours) RAD 265 CT Pathology (2 credits: 20 contact hours): limited 12 students RAD 266 CT Protocols II (3 credits; 2 credits: 20 contact hours): limited 12 students RAD 267 CT Clinical Educations I (3 credits; 3 days/week x 15 weeks = 360 clinical hours) In an effort to accommodate working radiologic technologists, classroom instruction will be offered in a blended-format in the radiography lab in OE 121. Clinical education will be conducted at local hospitals and a number of affiliated health care facilities.

Budget		START-UP COSTS	ONGOING COSTS
Specify program costs in the following areas, per academic year:	Faculty	$.	$.
	Training/Travel	.	.
	Materials/Resources	1000. —	.
	Facilities/Equipment	.	.
	Other	.	.
	TOTALS:	$ 1000. —	$.

Program Description for Catalog and Web site	
	The computed tomography (CT) program is a post-associate advanced certificate program that is designed for registered radiologic technologists (ARRT), radiation therapists (ARRT), and nuclear medicine technologists (ARRT or NMTCB). This program offers the didactic and clinical experience that will provide students with the knowledge and skills that are required to become an entry-level computed tomography technologist. The curriculum is based on the recommended American Society of Radiologic Technology (ASRT) computed tomography guidelines. Upon successful completion of the computed tomography program, students are eligible to take the ARRT post-primary certification examination in computed tomography. In an effort to accommodate working radiologic technologist, this program will be offered in a blended-format.

Program Information	Accreditation/Licensure – The program will be accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT)
	Advisors – Connie Foster and William Nelson
	Advisory Committee –
	Admission requirements -
	Articulation agreements -
	Continuing eligibility requirements -

Assessment plan:

Program outcomes to be assessed	Assessment tool	When assessment will take place	Courses/other populations	Number students to be assessed

Scoring and analysis plan:

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2. Indicate the standard of success to be used for this assessment.

3. Indicate who will score and analyze the data.

4. Explain how and when the assessment results will be used for program improvement.

REVIEWER	PRINT NAME	SIGNATURE	DATE
Department Chair/Area Director	Connie Foster	Connie Foster	11/10/11
Dean	Martha Showalter	Martha Showalter	11/10/11
Vice President for Instruction ☑ Approved for Development ☐ Final Approval		Stuart Blacklaw	11/14/11
President			
Board Approval			