



program handbook 2011/2012

CARDIOVASCULAR TECHNOLOGY

associate degree programs

The purpose of this handbook is to familiarize the student with the policies of the program, so as to give direction to the student throughout their course of study.

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MercyCollege

OUR MISSION

Mercy College of Ohio, a Catholic institution with a focus on healthcare, educates and inspires students to lead and to serve in the global community.

OUR VISION

We will be the leader in educating individuals committed to intellectual inquiry, social engagement, and life long learning.

OUR VALUES

Compassion - Displaying respect, empathy, and a willingness to listen.

Human Dignity - Respecting the significance of each individual.

Excellence - Pursuing distinction in our professional and personal lives through quality academics and intellectual inquiry.

Service - Engaging the college community to enrich the lives of students through professional and community service.

Sacredness of Life - Revering all life through our thoughts, words, and actions.

Justice - Acting with integrity, fairness, honesty, and truthfulness.

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INTRODUCTION

We would like to take this opportunity to welcome you to your professional educational program which will provide the education necessary to enter the profession of Cardiovascular Technology (CVT). We congratulate you on your admission to the program and feel certain that you are embarking on a rewarding career.

This handbook for Cardiovascular Technology is provided to give standardized basic orientation information for the students who are enrolled in the Mercy College of Ohio Cardiovascular Technology Program. **Students are expected to be familiar with all of the material/abide by all policies contained in this handbook. There is a student acknowledgement form at the end of this handbook, which you are required to sign and return to the Program Chair at the beginning of your professional coursework.**

DISCLAIMER

Information in this handbook is subject to change at any time. The college will make every effort to inform students in the program of any changes in advance of implementation.

Questions concerning policies and procedures not covered in this handbook should be referred to the Program Chair.

COLLEGE INTRODUCTION

Who Are We?

Mercy College of Ohio is a Catholic, undergraduate institution of higher education founded by the Sisters of Mercy and sponsored by Mercy Health Partners. Our focus is to provide health care and health science related programs, continuing professional education programs, and other community services. We value and provide the integration of general and professional studies as the basis for successful career preparation. Excellence in the teaching and learning experience is rooted in the correlation of theory and practice.

Mission Statement

Mercy College is a Catholic institution of higher education dedicated to inspiring its students to a commitment to lifelong learning and social responsibility in the spirit of the Mercy heritage and values.

Vision

As a faith-based community of learners, we envision creating leaders who value intellectual inquiry and social responsibility by living the Mercy core values. We seek to nurture the whole person and to inspire our students to be of service and to mentor others through the twenty-first century and beyond.

Core Values

Compassion – Displaying respect, care, empathy, and consideration to everyone we meet.

Human Dignity – Valuing the diversity and significance of each individual, rooted in our belief that all are created in the image and likeness of God.

Excellence – Focusing on the areas of academics and intellectual inquiry to pursue distinction in our professional and personal lives.

Sacredness of Life – Reverencing all life through our thoughts, words, and actions.

Service – Dedicating ourselves to improving the lives of others through professional and community services.

Justice – Acting with integrity, honesty, and truthfulness.

INSTITUTIONAL LEARNING OUTCOMES

The philosophy behind a Mercy College education is that an individual, regardless of his/her chosen profession, needs to possess both a broad knowledge-base and the institutional learning outcomes which characterize an educated person. At Mercy College, this knowledge base and these institutional learning outcomes are emphasized in all courses. Students demonstrate mastery of the Mercy College Institutional Learning Outcomes through the completion of a student portfolio, which enables the Humanities/Social Sciences Division, the College, and, most importantly, the student to assess student learning. This General Education Portfolio presents documentation which demonstrates the student's work, abilities, and growth throughout her/his academic career at Mercy College of Ohio.

- 1. Communication:** To develop fundamental literacy in reading, writing, speaking and listening in order to communicate effectively.
- 2. Critical Thinking:** To reason logically, using data from appropriate disciplines in the process of problem solving and decision-making.
- 3. Mathematics:** To understand mathematical concepts and perform mathematical and algebraic computations.
- 4. Values and Catholic Identity:** To exhibit an understanding of Catholic values, beliefs, and the nature of faith as they impact ethical decision making within the professional and personal life of the graduate.
- 5. Computer Technology:** To understand the use of introductory computer technologies with emphasis on instructional software and word processing.
- 6. Science:** To understand scientific concepts, the scientific method, contemporary issues in science and technology, and apply these concepts to healthcare.
- 7. Humanities:** To exhibit a broader awareness, interest and appreciation of the relevance of the humanities to current conditions of life while acknowledging the beauty of human endeavor as a universal characteristic of cultures.
- 8. Social and Global Awareness:** To understand and respect the diversity of cultures and experiences that characterize the global community and enable graduates to be productive and responsible citizens in a democratic society.
- 9. Life-Long Learning:** To be motivated and responsible for continual self-directed learning and development of skills needed for self-actualization.

MISSION STATEMENT OF THE CVT PROGRAM

The mission of the Cardiovascular Technology programs is to provide quality educational experiences that prepare individuals for entry-level positions in a non-invasive cardiology setting.

PROGRAM GOALS

- Function as competent entry-level cardiovascular technologists in the cognitive, psychomotor and affective learning domains for non invasive cardiology.
- Function as competent entry-level cardiovascular technologists in the cognitive, psychomotor and affective learning domains for non invasive peripheral vascular.

PROGRAM OUTCOMES

1. Successfully complete the entry-level credentialing examination offered through CCI. (cognitive domain)
2. Successfully complete advanced credentialing examinations offered through CCI and the ARDMS. (cognitive domain)
3. Be competent in ultrasound physics, instrumentation, tissue characteristics, and measurements and calculations relating to cardiac and vascular anatomy and physiology. (cognitive domain)
4. Be technically proficient in performing noninvasive cardiovascular exams including; electrocardiograms, ambulatory monitoring and stress testing as well as echocardiograms and peripheral vascular studies.
5. Demonstrate professional behaviors consistent with the following: HIPAA requirements, confidentiality obligations, professional conduct, code of ethics, dress code, scope of practice and technical standards. (affective domain)
6. Perform exams using proper body mechanics to decrease muscle-skeletal injuries. (psychomotor domain)

PROGRAM ASSESSMENT AND EFFECTIVENESS PLAN

Both student learning outcomes and the program are assessed in the following ways:

1. Like all of the academic programs offered by Mercy College, the Cardiovascular Technology Program participates in the Mercy College institutional assessment and assessment of student learning outcomes plans.
2. The Cardiovascular Technology Program also utilizes its own assessment plan to assess student learning and program outcomes.
3. The Program Advisory Committee is involved with the program planning, evaluation, and improvement.
4. Students complete evaluations of the course and the instructor at the end of each semester.

5. Instructors participate in classroom assessment techniques (CATS) during each course.
6. Students assess the clinical component of the program.
7. Program graduates complete an Exit Survey.
8. Graduates are asked to complete a Six-Month Post Graduation Survey.
9. Employers of the Program Graduates are given a satisfaction survey to complete.

ACCREDITATION STATUS

Mercy College of Ohio's Cardiovascular Program is approved by The Ohio Board of Regents.

GENERAL INFORMATION

Cardiovascular technology is an allied health profession specifically concerning the diagnosis and treatment of patients with cardiac and peripheral vascular disease. It is a multidisciplinary science requiring the student to be suitably trained and educated in the basic and applied principles of several diagnostic and/or therapeutic modalities. The technologist performs examinations at the request or direction of a physician. The technologist is to be trained to be proficient in the use of analytical equipment and sundry apparatus including placing such equipment on the patient. Through subjective sampling and/or recording, the technologist proceeds with the examination to create an easily definable foundation of data from which a correct anatomic and physiologic diagnosis may be established for the patients.

We currently offer two non-invasive associate degree programs: Cardiovascular Technology - Echocardiography and Cardiovascular Technology- Peripheral Vascular. Associate degree programs generally require the equivalent of two academic years for completion. The CVT Program is six consecutive semesters in length. The program is divided into didactic, laboratory and clinical areas.

Cardiovascular technology is a multi-disciplinary science requiring the student to be suitably trained and educated in the basic and applied principles of several diagnostic and/or therapeutic modalities. Upon completion of an educational program, each student must have acquired clinical skills and knowledge consistent with specific clinical performance objectives. Cardiovascular technology students are educated in the theory of a broad spectrum of diagnostic techniques used in the diagnosis and serial follow-up of cardiovascular disease.

Students are admitted to the program in the spring/summer with courses beginning in the fall semester (once a year). The number of students selected for admission each year is determined by the availability of space in the clinical facilities affiliated with the program. The Cardiovascular courses run for six consecutive semesters (fall, spring and summers). The program is divided into didactic, laboratory and clinical areas.

To be prepared for both didactic and clinical activities requires full time concentration. Therefore, students are encouraged to reduce employment to a minimum to maintain adequate time for theory and clinical requirements.

Associate degree programs generally require the equivalent of two academic years for completion. The Cardiovascular Technology Program is designed to provide the basis for a wide variety of higher entry level job opportunities and a broader base for promotion and career

development. Associate degree programs also provide a firm foundation for further education, including baccalaureate degree study.

In the first year of the program, all students receive education and training in cardiovascular anatomy and physiology, and the application of clinical cardiovascular techniques including electrocardiograms, ambulatory monitoring and stress testing. Students completing the first year of study, are eligible and encouraged to sit for the National Certification Exam, Certified Cardiographic Technologist (CCT) through Cardiovascular Credentialing International (CCI).

Students continuing into the second year of the program will have emphasis on noninvasive vascular studies **OR** adult echocardiography, with lecture and laboratory courses combined with clinical experience in local hospitals and clinics. Flexibility of time and arrangements for transportation remain the responsibility of the student.

Noninvasive cardiovascular technologists perform electrocardiograms, stress testing, ambulatory monitoring and ultrasound of the heart (echocardiograms), all of which yield data about the pathophysiology without invading the cardiovascular system. The echocardiogram combined with Doppler technology is the most extensive noninvasive examination performed and provides visualization and information on both the anatomic structure and function of the heart.

Noninvasive peripheral vascular technologists also perform electrocardiograms, stress testing, and ambulatory monitoring. Peripheral vascular studies are performed on the upper and lower arterial and venous system, and utilize Doppler technology as well. Noninvasive cardiovascular techniques have major applications in both the adult and pediatric population by providing serial examinations in patients with previously diagnosed disease, or identifying complex anatomy.

The policies of the Associate Degree Program are guidelines to promote students' successful completion, meet the requirements of the appropriate agencies and ensure equitable treatment of students. Faculty may modify policies, given sufficient cause. Students completing their degree will be eligible for the Registry Exam offered through Cardiovascular Credentialing International (CCI) **OR** the American Registry for Diagnostic Medical Sonographers (ARDMS).

Upon successful completion of an Associate Degree in Cardiovascular Technology, the Mercy College graduate will be eligible to complete a second Associate Degree in Cardiovascular Technology. This option will be offered to graduates in good standing. Students will be selected on a case by case basis depending on clinical site space availability.

Specific criminal matters or a prior felony conviction may impact your ability to obtain a registry credential from the ARDMS. Further information may be found at www.ardms.org

TECHNICAL STANDARDS

Cardiovascular Technologists and Cardiovascular Technology students must comply with the TECHNICAL STANDARDS in the field:

Speech, Hearing and Vision

- Be able to interact and communicate effectively - both orally and in writing with patients, physicians and other health care professionals
- Be able to read and accurately complete reports
- Be well-versed in medical terminology
- Be able to differentiate shades of gray and color
- Possess sufficient vision to delineate ill-defined structures, borders, anatomical structures and pathological abnormalities
- Possess hearing to differentiate Doppler signals

Physical Demands - Performance of noninvasive cardiology and noninvasive peripheral vascular studies involves standing, walking, and moving of heavy ultrasound equipment

- Be able to participate in all demonstrations, laboratory and clinical rotations
- Possess physical coordination to perform scanning with manipulation of the probe and changing of the knobs (eye-hand coordination)
- Possess a full range of body motion including handling, lifting and transfer of patients
- Possess fine motor functions (manual dexterity)
- Ability to sit or stand for extended periods of time (7-8 hours) per day
- Be aware of proper infection control, including precautionary procedures (all clinical settings)
- Recognize and respond to emergency situations (AHA healthcare provider BLS)
- Be familiar with, and in compliance with relevant laws regarding patient confidentiality and privacy

Mental Demands - Must possess the emotional health required for full utilization of intellectual abilities (appropriate medical judgment)

- Be able to solve daily operational problems related to performing exams, including troubleshooting equipment malfunctions
- Recognize any condition, in the echo or patient behavior that may pose an immediate threat to health or life (act appropriately)
- Be ready for the unpredictable (technical quality, unexpected findings) and exhibit flexibility, independent judgment and critical thinking

MERCY COLLEGE OF NORTHWEST OHIO

AS in Cardiovascular Technology – Peripheral Vascular Program (ACVP) Worksheet

This document is for informational purposes only and does not constitute or guarantee admission to any program at Mercy College of Northwest Ohio.

Effective Fall 2011

The following pre-entrance requirements must be with a grade of “C” or better and must be within the past seven years: ___Algebra ___Biology ___Chemistry ___HS GPA ___College GPA

Semester I

		<u>Credit Hrs.</u>
ALH 120	Medical Terminology	2
BIO 220	Anatomy and Physiology I	4
CVT 110	Cardiac Dysrhythmias	4
CVT 111	Cardiac Dysrhythmias Lab	1
GEN 101	Student Success Strategies	2
		11/13

Semester II

BIO 221	Anatomy and Physiology II	4
CVT 120	12-Lead EKG Interpretation	4
CVT 121	12-Lead EKG Interpretation Lab	1
ENG 101	English Composition I	3
MTH 104/106	Math Requirement	3
		15

Semester III

CVT 122	12- Lead EKG Interpretation Clinical	4
ENG 102	English Composition II	3
		7

Semester IV

CVT 130	Ultrasound Instrument Mech. & Wave Physics Lab	1
CVT 240	Peripheral Vascular-Venous Disorders	4
CVT 241	Peripheral Vascular-Lab/Clinical I	4
PSY 101	Introduction to Psychology	3
REL 301	Medical Ethics	3
		15

Semester V

CVT 140	Ultrasound Physic and Instrumentation	4
CVT 250	Peripheral Vascular-Arterial Disorders	2
CVT 251	Peripheral Vascular-Lab/Clinical II	4
	Humanities Elective	3
SOC 211	Cultural Diversity	3
		16

Semester VI

CVT 252	Cardiovascular Clinical Capstone	4
		4

Total: 68/70 Credit Hours

MERCY COLLEGE OF NORTHWEST OHIO

AS in Cardiovascular Technology – Echocardiography Program (ACVE) Worksheet

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College of Northwest Ohio.
Effective Fall 2011

The following pre-entrance requirements must be with a grade of “C” or better and must be within the past seven years:

___Algebra	___Biology	___Chemistry	___HS GPA	___College GPA
<u>Semester I</u>				
ALH 120	Medical Terminology			2
BIO 220	Anatomy and Physiology I			4
CVT 110	Cardiac Dysrhythmias			4
CVT 111	Cardiac Dysrhythmias Lab			1
GEN 101	Student Success Strategies			2
				11/13

<u>Semester II</u>				
BIO 221	Anatomy and Physiology II			4
CVT 120	12-Lead EKG Interpretation			4
CVT 121	12-Lead EKG Interpretation Lab			1
ENG 101	English Composition I			3
MTH 104/106	Math Requirement			3
				15

<u>Semester III</u>				
CVT 122	12- Lead EKG Interpretation Clinical			4
ENG 102	English Composition II			3
				7

<u>Semester IV</u>				
CVT 130	Ultrasound Instrument Mech. & Wave Physics Lab			1
CVT 210	Echocardiography			4
CVT 211	Echocardiography Lab/Clinical			4
PSY 101	Introduction to Psychology			3
REL 301	Medical Ethics			3
				15

<u>Semester V</u>				
CVT 140	Ultrasound Physics and Instrumentation			4
CVT 220	Advance Echocardiography			2
CVT 221	Advanced Echocardiography Lab/Clinical			4
	Humanities Elective			3
SOC 211	Cultural Diversity			3
				16

<u>Semester VI</u>				
CVT 252	Cardiovascular Clinical Capstone			4
				4

Total: 68/70 Credit Hours

CVT COURSE DESCRIPTIONS

CVT 110

Cardiac Dysrhythmias

4 HOURS (4-0)

This course addresses cardiac electrophysiology, the process of rhythm analysis, heart sounds and ambulatory monitoring techniques.

Corequisites: CVT 111

Prerequisites: Admission into the CVT Program

CVT 111

Cardiac Dysrhythmias Lab

1 HOUR (0-2)

This course examines twelve-lead EKG analysis and troubleshooting, patient preparation and instruction or ambulatory monitoring.

Corequisites: CVT 110

Prerequisites: Admission into the CVT Program

CVT 120

12-Lead EKG Interpretation

4 HOURS (4-0)

This course covers twelve-lead EKG analysis including bundle branch blocks, hypertrophics, infarction patterns, pediatric EKG interpretation and stress test procedures.

Corequisites: CVT 121

Prerequisites: CVT 110, CVT 111 and BIO 220

CVT 121

12-Lead EKG Interpretation Lab

1 HOUR (0-2)

This laboratory course focuses on equipment set-up, patient preparation, performance of 12-lead EKGs, preparation and performance of stress testing, and analysis of both normal and abnormal twelve-lead EKG recordings.

Corequisites: CVT 120

Prerequisites: CVT 110, CVT 111

CVT 122

12-Lead EKG Interpretation Clinical

4 HOURS (0-16)

Clinical experiences are provided in acute care and outpatient settings for EKG, ambulatory monitoring and stress testing.

Prerequisites: CVT 120, CVT 121, BIO 221 and current CPR certification

CVT 130**Ultrasound Instrument Mechanics and Wave Physics Lab**

1 HOUR (0-2)

A study of ultrasound instrumentation mechanics and ultrasound wave physics. Introduction to knobology of the imaging system in noninvasive cardiology studies.

Corequisites: CVT 210 and CVT 211 OR CVT 240 and CVT 241**Prerequisites:** MTH 104/106 and CVT 122**CVT 140****Ultrasound Physics and Instrumentation**

4 HOURS (4-0)

This course covers physical principles of ultrasound image generation and the image interpretation skills, and assessment of cardiac and peripheral vascular diseases.

Corequisites: CVT 220 and CVT 221, or CVT 250 and CVT 251**Prerequisites:** CVT 130**CVT 210****Echocardiography**

4 HOURS (4-0)

This course examines the procedures and principles of M-mode, 2-D and Doppler echocardiography with an emphasis on views and pathology.

Corequisites: CVT 130 and CVT 211**Prerequisites:** CVT 122**CVT 211****Echocardiography Lab/Clinical**

4 HOURS (0-12)

This course is an introduction to echocardiography views utilized for M-mode, 2-D and Doppler measurements. Laboratory and clinical experience are provided to support the didactic curriculum.

Corequisites: CVT 130 and CVT 210**Prerequisites:** CVT 122**CVT 220****Advanced Echocardiography**

2 HOURS (2-0)

This course focuses on advanced pathophysiology, including stress echo, transesophageal and congenital anomalies.

Corequisites: CVT 140 and CVT 221**Prerequisites:** CVT 210 and CVT 211

CVT 221**Advanced Echocardiography Lab/Clinical**

4 HOURS (0-12)

This course focuses on laboratory and clinical experiences covering advanced echocardiography studies with Doppler interpretation. Clinical practice will be held off campus.

Corequisites: CVT 140 and CVT 220**Prerequisites:** CVT 210 and CVT 211**CVT 240****Peripheral Vascular-Venous Disorders**

4 HOURS (4-0)

This course studies the procedures and principles involved in recording and performing an analysis of non-invasive peripheral vascular venous data. Quantitative and qualitative methods of detecting venous diseases are covered.

Corequisites: CVT 130 and CVT 241**Prerequisites:** CVT 122**CVT 241****Peripheral Vascular-Venous Disorders Lab/Clinical I**

4 HOURS (0-12)

This laboratory and clinical course addresses performance of non-invasive peripheral vascular procedures related to venous diseases. Clinical rotations are held off campus.

Corequisites: CVT 130 and CVT 240**Prerequisites:** CVT 122**CVT 250****Peripheral Vascular-Arterial Disorders**

2 HOURS (2-0)

This course focuses on procedures and principles involved in recording and performing analysis of non-invasive peripheral vascular arterial data. Quantitative and qualitative methods of detecting arterial diseases are covered.

Corequisites: CVT 140 and CVT 251**Prerequisites:** CVT 240 and CVT 241**CVT 251****Peripheral Vascular-Arterial Disorders Lab/Clinical II**

4 HOURS (0-12)

This course provides laboratory and clinical experiences for non-invasive peripheral vascular procedures related to arterial diseases. Clinicals are held off campus.

Corequisites: CVT 140 and CVT 250**Prerequisites:** CVT 240 and CVT 241

CVT 252

Cardiovascular Clinical Capstone

4 HOURS (0-16)

This course provides clinical experiences which allow the student to perform non-invasive echocardiography or peripheral vascular exams under the direct supervision of a qualified technologist. Clinicals are held off campus.

Prerequisites: CVT 220 and CVT 221 or CVT 250 and CVT 251

CVT 280

Independent Study

1-3 HOURS (variable, 1-3-0)

This course provides supervised independent work in cardiovascular technology designed to meet approved objectives/learner outcomes. Student must meet specific criteria and present the instructor with a detailed written proposal. Written approval must be obtained from the instructor and Associate Dean of Allied Health.

Prerequisites: Written Approval from the Instructor and the Associate Dean of Allied Health

STUDENT-FACULTY COMMUNICATION

Students are encouraged to contact the course instructor whenever appropriate to discuss any academic matter, please follow these guidelines:

Office Hours: All full-time faculty have five (5) office hours per week.

All instructors will announce or post the times he/she is available for discussion. Students are highly encouraged to avail themselves of this service. Part-time instructors may meet with students prior to or following lab sessions.

Faculty Office Phones: Instructors will announce or publish their office phone number. Messages can be left on voice mail.

E-mail: All faculty have an e-mail account so that students can reach them and leave messages. Absence notification is extremely important for lab and clinical hours.

Computer Labs: The library computer laboratory is available for student use according to a posted schedule. During the course of the program, students may be required to complete assignments in the lab

GRADING SCALE

A	=	93-100%
B	=	85-92%
C	=	78-84%
D	=	72-77%
F	=	71% and below

ATTENDANCE

Students are expected to attend classes, lab and clinic regularly.

In the event that a student is unable to attend class, it is the responsibility of the student to obtain the information and materials of that day. Attendance for exams is mandatory, unless otherwise approved and rescheduled at the instructor's discretion. The exams will be derived directly from the lecture content so it is to your advantage to attend class on a regular basis.

Tardiness is disruptive to the classroom setting and to student learning. Tardiness and Absence Policies will be reviewed in class.

ATTENDANCE AND PARTICIPATION IN LAB IS MANDATORY FOR ALL STUDENTS. Labs will be held off-campus at clinical facilities.

On the first day the class meets, the instructors will inform students of the individual definitions of satisfactory attendance. All missed clinical time will be made up. It is mandatory to completed the required hours for the semester. Excessive absence or tardiness will affect the student grade and may prevent the student from meeting clinical and/or academic objectives. Students must notify the Program Chair and the designated individual at the clinical site **prior** to their assigned arrival time if illness or emergency causes them to be absent from class or clinical assignment. For the consequence of non-compliance, please see the course syllabus.

CLINICAL INFORMATION

The preparation of competent cardiovascular technologists is the most important goal of the Cardiovascular Program at Mercy College of Ohio. One of the necessary ingredients of competence is the ability of the student to perform an array of clinical procedures in a safe, effective and efficient manner. It is through the clinical experience that the student is offered the opportunity to develop desired performance abilities by allowing him/her to experience first-hand a wide variety of cardiac and peripheral vascular exams. Students will be scheduled in a clinical setting for 16-35 hours per week (varies per semester). Primary clinical sites are located within a 1 to 1.5 hour drive of campus, with many sites within the greater Toledo area. In special situations, the student may be asked to travel a great distance. Students are responsible for arranging their own transportation to and from all clinical assignments. Each should be prepared to accept a variety of clinical assignments in several different locations.

It is the student's primary responsibility to gain as much experience as is possible during his clinical rotations. To accomplish this, the student must remain alert and inquisitive. The student must possess the desire to participate in all duties assigned to the cardiovascular technician or technologist. They should not hesitate to ask questions of others and should be willing to seek answers to questions through reading. It is only through continued performance of tasks and the willingness and desire to seek and apply knowledge that the student shall experience the maximum gain from the clinical rotations. It is imperative that the student come to clinical prepared for the experience as outlined in the clinical guidelines.

During the clinical experience students shall be judged on their ability to integrate theory with practice, performance of skills, attitudes and appearance. They shall be responsible for documentation of their clinical time and activities. They shall also be governed by specific

policies and procedures of the individual hospitals. The student should utilize the clinical faculty knowledge as an outstanding resource. Employment in the cardiovascular department shall not be substituted for clinical hours while enrolled in the program.

The clinical affiliate may:

1. Refuse educational access to its clinical areas to College faculty and students who do not meet the hospital standards and policies for health, safety, performance or ethical behavior.
2. Resolve any problem situation in favor of the patients' welfare and restrict the student involved to an observer role until the incident can be clarified by the staff in charge and the cardiovascular faculty.

Any student who is dismissed from clinical for any of the above mentioned reasons will be required to appear at a formal meeting. College policy and procedure will be followed to determine if the student can continue in the clinical course.

Any student who fails any two CVT courses will not be considered for readmission.

GRADING FOR LAB/CLINICAL COURSES

Grading for lab and clinical is based on performance objectives.

Lab instructors are responsible for lab grading.

Clinical grades are issued with the input of all the technologists who performed as preceptors for the student.

During a clinical rotation, all students are to be graded on a weekly basis to help assess competence.

The following are required prior to the first course:

1. Completed Health Form Packet (due date will be announced).
2. **LIABILITY:** All students admitted to the Cardiovascular Technology Program are provided with required liability insurance by the College.
3. Cardiovascular students are required to complete an American Heart Association course for cardiopulmonary resuscitation for healthcare providers (CPR) certification prior to taking cardiovascular courses. CPR will be offered through the S.T.E.P. department of the college and must be taken prior to the start of the first semester. It is the student's responsibility to maintain certification throughout the program.
4. Scrub uniform with Lab coat/jacket: Mercy College and all clinical sites require students to wear uniforms that identify them as students. Lab coats/jackets will have the Mercy College logo and "Cardiovascular Student" embroidered on the upper pocket. Uniforms will be ordered on-line through a company designated by the Program Chair. Uniforms are not necessary for lab, but you will be required to wear a uniform to your clinical site.
5. Nametag: Student Photo ID's are required to be worn during clinical hours.

6. Stethoscope: A stethoscope will be used in both the laboratory and the clinical phases of your program. Stethoscopes may be purchased at a number of medical supply companies.
7. Watch with second hand: Optional, but strongly encouraged.

CLINICAL ABSENCE POLICY

1. Students who are tardy must have a legitimate excuse. In the event the student is tardy five (5) or more times without a valid excuse, the clinical course will be terminated and the student will receive an unsatisfactory grade (D), for the clinical portion of the class. Students will be informed by the clinical preceptor when they are considered tardy. After three episodes of unexcused tardiness, the preceptor will notify the program chair.
2. Students with three (3) unexcused absences will experience a complete letter grade drop for each occurrence, up to three grade drops(3), at which time their clinical externship experience will be terminated with a failing grade.
3. Excused absences include illness with a medical excuse, court appearance, jury duty, automobile accident, or a death in the family. In an excused absence, notification of the preceptor and the program chair are mandatory. In the event that a student experiences three (3) or more excused absences, a review with the program chair and preceptor will be necessary to determine if the student should be able to continue their clinical course.
4. Absence from assigned clinical days **MUST** be made up. Arrangements for the make-up must be submitted in writing and approved by both the preceptor at the clinical site and the program chair. Exceptional cases will be reviewed in a formal meeting of the program chair and the clinical preceptor.
5. Students leaving their clinical site prior to their assigned end of shift may do so only if excused by the preceptor. This is not expected to occur more than three times during the clinical experience.
6. All documentation of tardiness, unexcused and excused absences will remain as part of the student's permanent file.

STIPEND

No stipend is paid to CVT students during clinical experience. Clinical experience is education and, as such, is just as important as time spent in the classroom. Students may not replace qualified paid staff during their scheduled clinical times. Students are, however, permitted to work as hired employees after scheduled class/clinical time if the number of hours is not excessive and does not interfere with academic performance.

HEALTH REQUIREMENTS AND CRIMINAL BACKGROUND CHECKS:

A report of sound health in conjunction with the lab/ clinical experience is a requirement of the college and each lab/clinical site. Students must meet all eligibility requirements and provide documentation prior to the start of CVT110.

In addition to the health requirement, a criminal background check must be performed for each student. Students failing to complete this requirement will not be assigned to a lab/clinical site. Please refer to the Mercy College of Ohio's health requirement and criminal background check policy.

Please note that lab/clinical facilities may have additional site-specific medical or legal requirements. Students assigned to those facilities must fulfill all requirements prior to starting their lab/clinical (see page 24 for more information).

PROFESSIONAL CONDUCT AND CODE OF ETHICS

Student Responsibilities -

As a Cardiovascular Student you have the responsibility to:

1. Maintain a professional attitude in class and at clinical and adhere to prescribed medical ethics. Each student's attitude, appearance, and conduct is often viewed as a reflection of the profession of cardiovascular technology and Mercy College of Ohio. For these reasons students will present the highest standards of professional conduct at all times.
2. Attend all classroom, laboratory, and clinical experiences.
3. Request further information concerning anything you do not understand. Problems cannot be addressed if faculty members are not aware they exist.
4. Actively participate in the development and attainment of educational goals. Student initiative and participation in all classroom and clinical activities is expected.
5. Inform program faculty of any health related issues that may interfere or endanger themselves or others in the clinical setting.
6. Students must inform program faculty immediately of any occupational exposures.

PERSONAL APPEARANCE

The public gains impressions of the college and medical facility from contact with their students and employees. Therefore, it is important for you not only to be courteous and efficient, but also to contribute to our public image through proper dress and personal grooming. Neatness and good taste in one's dress and manner also contribute much to the impression one makes on

their fellow students and employees. A professional appearance assures poise and self-confidence.

Since personal appearance is regarded as an important aspect of the student's over-all clinical education process, the following specific regulations are to be observed:

1. Reasonable conservative style, hair should clear the back of the jacket collar. Long hair must be pulled off the collar.
2. Nails of conservative length to avoid scratching patients during procedures and to protect students from transfer of disease. Artificial nails are not permitted. No visible body piercing or tattoos are permitted.
3. A watch with a second-hand is recommended. Small styles of earrings are permitted. No other jewelry, with the exception of a wedding band, is to be worn in the clinical site.
4. No open-toed shoes, clogs, or boots permitted. It is suggested that you wear comfortable rubber-soled shoes. Shoes should be white and kept clean.
5. All students are required to wear the approved program uniform.
6. Strong smelling colognes and perfumes should be avoided as some patients have allergic type reactions. Students should not smell from smoke or alcohol.
7. Personal hygiene is important. Students should wear deodorant and use mouth wash.
8. Judgment of the clinical instructor will prevail. Deviation from the above guidelines may result in a warning or dismissal from clinical for the day. This lost clinical time will be considered unexcused and will result in the deduction of ten points from the student's clinical score.
9. Clinical dress code requirements apply to all students.

HONOR CODE

As future professionals, it is expected that students will conduct themselves in an ethical, responsible and honorable manner at all times. Cardiovascular Technology students are required to adhere to the basic tenets of ethical behavior.

Keeping this in mind, respecting the rights and privacy of others, following the rules and regulations of the Cardiovascular Technology Program, clinical sites, and the Mercy College policy will be considered as minimal behavior standards. Failure to behave in a professional manner may result in a warning and/or removal from the program.

CONFIDENTIALITY OF PROTECTED HEALTH INFORMATION

By law, all information contained in a patient's medical record/ electronic health record (protected health information) is considered to be confidential. Information pertaining to the facility or relating to physicians or employees is considered confidential as well. All information discussed or available in class or in the clinical facilities is therefore considered confidential and may not be discussed outside of the classroom or clinic.

Students may not disclose confidential information to unauthorized individuals, including family and/or friends. Failure to respect confidential information will result in dismissal from the program.

All students are required to sign facility-specific privacy statements prior to participating in any laboratory or clinical activities that are held in a hospital, physician's office, ambulatory care facility, or other health-related agency that provides custodial care, diagnosis, treatment, surgery, therapy or any health-related care. Students who refuse to sign confidentiality statements will be dismissed from their program.

STUDENT REPRESENTATION

Each Cardiovascular Technology class will have two elected class representatives. The class representatives are invited to share information at the Cardiovascular Technology Program Advisory Committee meetings.

Student representatives of the Cardiovascular Technology Program in the Mercy College Student Senate organization are encouraged. Nominations occur each September of the academic year.

MERCY COLLEGE CIVILITY STATEMENT

The classroom is a special environment in which students and faculty come together to promote learning and growth. It is essential to this learning environment that respect for the rights of others seeking to learn and respect for the professionalism of the faculty are maintained.

Student conduct which disrupts the teaching/learning process shall not be tolerated and may lead to disciplinary action and/or removal from class.

STUDENT ACADEMIC APPEAL PROCESS (Due Process Policy)

A student who is disputing a course grade or clinical evaluation should try to resolve the issue in an informal fashion by requesting a conference with the course instructor. However a student disputing a course grade or clinical evaluation may appeal in compliance with the formal Student Academic Appeal Process Policy which is located in the Mercy College Catalog. Please see the College Catalog for exact details.

ACADEMIC INTEGRITY

Refer to the College Catalog to review this policy.

WITHDRAWAL/REMOVAL FROM A CLINICAL FACILITY

Students receiving instruction at a clinical facility are under the jurisdiction of the college. The college will immediately withdraw any student from a clinical facility for reasons of **HEALTH** (physical and/or emotional which is impeding the student's ability to do the work required), **ATTENDANCE, PERFORMANCE, ACADEMIC DISHONESTY, MISCONDUCT or VIOLATION OF CLINICAL POLICIES/PROCEDURES** or at the request of the clinical preceptor for cause.

Misconduct that will result in immediate withdrawal and course failure (and possible program dismissal) from the clinical facility includes, **BUT IS NOT LIMITED TO:**

1. Failure to maintain required 2.0 "C" GPA in all CVT courses. Final letter grades of "D" are not permitted.
2. Absenteeism.
3. Uses of profane or vulgar language.
4. Cheating on written or practical examinations. Dishonesty, avoiding responsibility and evidence of lying will not be tolerated as well.
5. Inconsiderate, unprofessional, discourteous and disrespectful treatment of patients, clinical instructors, or staff.
6. Entering the clinical site or college under the influence of alcohol or other drugs.
7. Drinking alcoholic beverages on clinical site or College property.
8. Illegally obtaining, possessing, selling or using narcotics, amphetamines, or hallucinogenic substances.
9. Using abusive, obscene or threatening language to clinical preceptor, staff, patients, visitors or fellow students.
10. Failure to maintain strict confidentiality of patient records.
11. Unsatisfactory technical performance.
12. Uncooperative, hostile, negative or non-constructive attitudes toward clinical preceptor, site staff, visitor(s) or fellow students.
13. Failure to notify both clinical site and the college when absent.

RETENTION CRITERIA/STANDARDS OF PROGRESS

Once enrolled in the program the student is required to:

- Maintain a 2.0 cumulative grade point average (GPA);
- Earn a “C” grade, or higher, in all courses of the Cardiovascular Technology Program. Any grade lower than a “C” is considered a failure. Students may retake for credit any general education course in which a grade less than a ‘C’ has been earned. Only the second grade will be computed into the cumulative GPA. Both grades will appear on the transcript. Although a student may be allowed to repeat a general education course more than one time, this forgiveness policy does not apply beyond the first repeat attempt for any one course. **Any student who fails any two CVT courses will not be considered for readmission.**
- Please refer to the Mercy College Catalog for more information.
- To receive or maintain eligibility for federal financial aid, the student must meet the requirements outlined in the “Standards of Satisfactory Progress” Policy. A copy of the policy is available in the Financial Aid Office.

Students who are unable to meet these program requirements will be subject to academic probation and/or dismissal from the program as outlined in the Mercy College Catalog. Students who are dismissed from the program can appeal as outlined in the Mercy College Catalog under. Students dismissed for academic reasons may request consideration for reinstatement. Complete information on the readmission policy can be found in the Mercy College Catalog.

READMISSION PROCEDURE

Students dismissed for academic reasons may request consideration for reinstatement. Complete information on the readmission policy can be found in the College Catalog.

CELL PHONES AND CALLS DURING CLINICALS

No personal cell phones are to be used during clinicals. Department or hospital business phones are not to be used to make or to receive personal phone calls except in the event of an emergency. Students may make personal calls on their scheduled break or during lunch from cell phones outside of the hospital.

LEAVE OF ABSENCE POLICY

See College Catalog for policy information.

GRIEVANCE POLICY

The grievance policy for student concerns is found in the Mercy College Student Handbook. The complete policy is available in the library and by contacting the Vice President of Academic Affairs.

TUTORING SERVICES

On occasion, students may experience academic difficulty or desire additional instruction for various courses. The staff of the Student Formation Center includes a group of professionals that will assist students during these times. These services are provided free of charge. Tutoring is provided in the areas of science, math, writing, study skills, and nursing. More specific information about these services can be found in the college catalog.

REGISTRATION (SCHEDULING OF COURSES)

Registration is handled online through Empower with assistance from the academic advisor if you are a new student, if you are a pre-CVT student (still needing program prerequisites), or post-secondary student. Complete information on how to register for classes can be obtained from the Mercy College of Ohio website (www.mercycollege.edu) **It is ultimately the student's responsibility to make sure that they follow the CVT Program of Study carefully. CVT courses are offered only once per year, therefore, if a course is dropped, graduation can be delayed by one year.**

ADD/DROP

Information on how to drop or add a course can be found on the Mercy College website. If any CVT Program course is dropped, the Program Chair or assigned academic advisor should be notified immediately via e-mail or other communication by the student. This requirement is due to the fact that courses may be automatically added/dropped via Empower without advisor approval.

ACADEMIC ADVISING

Upon admission to the CVT Program, each student is assigned an Allied Health Academic advisor. The Academic Advisor will monitor the academic progress of the assigned student throughout the curriculum and advise/counsel the student as necessary. The advising program is designed to promote growth and self-direction for students and to provide opportunities for optimal physical, emotional, social, intellectual and spiritual growth and development. Academic Advisors believe that guidance and counseling is a continuous process and an essential part of the program. All students are encouraged to avail themselves of the opportunities provided within the college, such as self-defense seminars in relation to campus security, study skill seminars, chemical dependency recognition/guidance seminars, spiritual counseling and activities, and job counseling.

The Allied Health Academic Advisor has posted office hours, and is also available by appointment, or by e-mail. Specific information about academic advising can be found in the Mercy College Catalog.

PHI THETA KAPPA

Established by Missouri two-year college presidents in 1918, Phi Theta Kappa International Honor Society serves to recognize and encourage the academic achievement of two-year college students and provide opportunities for individual growth and development through honors, leadership and service programming. Today, Phi Theta Kappa is the largest honor society in American higher education with more than 1.3 million members and 1,200 chapters located in the United States, U.S. territories, Canada and Germany. In 1929, the American Association of Community Colleges recognized Phi Theta Kappa as the official honor society for two-year colleges.

Membership eligibility is based on the number of hours completed with a minimum of 12 credit hours and a minimum GPA of 3.5; membership is a special honor afforded to a small group of outstanding students.

COUNSELING

Counseling services are discussed in College orientation. Complete information on counseling services provided for students can be obtained from the Mercy College Catalog. Counseling services are located in the Student Formation Center located on the 5th floor of Mercy College.

LIBRARY AND LEARNING RESOURCES

Complete information concerning the library resources available to students is contained in the Mercy College Catalog.

In addition to learning resources available in the library, the CVT faculty members have a variety of desk reference material. Upon request, the student may sign out the reference material to the faculty members' collection. There are computer software packages installed in the computer lab.

TRANSFER CREDIT

A student may transfer to Mercy College of Ohio from another institution of post-secondary education by following the procedure outlined in the Mercy College Catalog. A list of courses that will transfer can be found on mercycollege.edu.

CHANGE OF ADDRESS

Any change in name, local address, permanent address (if different from the local address), or telephone number or email address should be reported to the Registrar promptly.

PROFESSIONAL LIABILITY AND HEALTH INSURANCE

LIABILITY: All students admitted to the Cardiovascular Technology Program are provided with required liability insurance by the College.

HEALTH: It is strongly recommended that all Cardiovascular Technology Students should be covered by health insurance. This is the student's responsibility. Clinical practicum sites do not provide student health insurance.

CLOSING THE COLLEGE (Inclement Weather)

The College will be open for classes or for clinical experience according to the class schedule, unless an emergency or inclement weather warrants closing the College or postponing the beginning of class or clinical education time. If these situations arise, the College spokesperson will notify the Toledo area radio and TV stations. Students should tune into these stations for information. The Mercy College website will be updated to display the message on the opening page. Additionally, the main phone voice line message will be updated with closing information and emails will be sent to all Mercy College students on their Mercy College email accounts. If the College has not closed, but the student cannot make it to the clinical site because of weather, the student must call the Program Chair and the designated individual at the clinical site to explain why he/she will not be attending class or clinical assignment.

In the event that clinical time is missed due to the previously stated unusual conditions, it is the discretion of the Program Chair, as to whether clinical time will need to be made up.

SPECIAL CONSIDERATIONS

Special problems or unexpected circumstances relating to progression or graduation should be brought to the attention of the Program Chair.

HEALTH REQUIREMENTS and CRIMINAL BACKGROUND CHECKS (Details)

In order to accomplish the rigorous academic and clinical requirements of the cardiovascular program, it is desirable that the student maintain optimal health. Prior to entry into their lab/clinical experience, *all students* are required to provide evidence of a recent (within the past 1 year) physical examination completed and signed by the student's physician and a criminal background check. The following immunizations are required:

TB Skin Test (2 Step) or Chest X-Ray

-There must be documentation of one of the following:

- 2 step test (1-3 weeks apart)
- Past 2 step test (1-3 weeks apart) PLUS each annual renewal
- 2 consecutive years of annual testing
- Negative blood test (with lab report)
- If any are positive, a clear Chest X-Ray within the past year is required

CPR Certification

-Must be the American Heart Association Healthcare Provider course. Copy must be front & back of the card, it has to be signed.

MMR (Measles, Mumps, Rubella)

-There must be documentation of one of the following (if you were born prior to 1/1/1957 you are exempt from this requirement):

- 2 vaccinations
- Positive antibody titers for all 3 components

Varicella

-There must be documentation of one of the following:

- 2 vaccinations
- Positive antibody titer

Tetanus, Diphtheria & Pertussis (Tdap)

-There must be documentation of a Tdap booster within the past 10 years.

Hepatitis B

-There must be documentation of one of the following:

- 3 vaccinations
- Negative antigen titer (lab report required)

Mercy College has contracted with Certified Background to provide services for collecting and maintaining student health information and providing criminal background checks.

CPR/ BLS

Cardiovascular students are required to complete an American Heart Association (AHA) course for cardiopulmonary resuscitation for healthcare providers (BLS) certification prior to taking cardiovascular courses. BLS will be offered through the Short Term Education Department of the college and must be taken prior to the start of the first semester. It is the student's responsibility to maintain certification throughout the program.

HAZARDOUS MATERIALS/WASTE MANAGEMENT EMPLOYEES/STUDENTS

Purpose: To ensure employee/student safety.

Policy: It is the policy of Mercy College of Ohio to provide a safe environment for all employees and students based on guidelines established by O.S.H.A. and other available recommendations. This program has been established to assure that each employee and student receives the information and training necessary to enable them to work safely with hazardous materials/ waste materials found in their workplace.

Procedure(s):

- I. It is the responsibility of all college employees/students to review all materials available regarding hazardous materials/waste materials with which they work, to promote a safe working/teaching environment.

- II. Faculty members are responsible for educating students during their orientation to every laboratory class or new clinical unit of the following:
 - A. The location of the Hazardous Materials/Waste Management Manual on the clinical unit or within the class.

 - B. M.S.D.S. -- The location of the Materials Safety Data Sheets and the contents of each M.S.D.S. for their specific unit or class, as well as, their inventory of hazardous chemicals.

 - C. Labeling -- The significance of the labeling of all hazardous containers with their identity and the National Fire Protection Agency or other approved hazard warning label.

 - D. Student rights to information and to be free from retaliation for exercising his/her rights.

 - E. Any operations in his/her work area where hazardous chemicals are present, the measures student can take to protect himself/herself from these hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used.

*MSVMC HAZARDOUS MATERIAL: HANDLING/STORAGE POLICY is available on the main page of portal, MHP Section, Policies and Procedures, Mercy St. Vincent Medical Center, Safety, Operational.

Mercy College of Ohio

Cardiovascular Technology Program

Acknowledgment Statement

I, _____ have received a copy of the Student Handbook of the Cardiovascular Technology Program of Mercy College of Ohio.

I agree to abide by the regulations and confidentiality of protected health information policy described within. I have been given the opportunity to ask questions for clarification of all policies.

Date

Student's Signature

Student's Printed Name