

# Radiologic Technology Department Student Handbook

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#### STUDENT HANDBOOK ACKNOWLEDGEMENT

The Student Handbook established by the Radiologic Technology Department does not conflict with the policies and procedures in effect for all students of South Texas College and/or the standards in effect for all NAH Program students, but may be more specific than those written in the South Texas College Catalog and/or the Division of Nursing & Allied Health Student Handbook.

Students are required to adhere to the Radiologic Technology Department Student Handbook and the Division of Nursing & Allied Health Student Handbook upon admission to each respective program within the department.

Students enrolled in prerequisite introduction courses in any respective program within the Radiologic Technology Department are required to adhere to the Division of Nursing & Allied Health Student Handbook.

# RADIOLOGIC TECHNOLOGY DEGREES AND CERTIFICATES

#### RADIOLOGIC TECHNOLOGY PROGRAM, ASSOCIATE OF APPLIED SCIENCE DEGREE

The Associate of Applied Science (AAS) Degree in Radiologic Technology at South Texas College is an approved program by the Southern Association of Colleges and Schools Accreditation Guidelines. The program provides educational and clinical experience that result in extensive knowledge in patient care, radiographic procedures, examination techniques, equipment operation, radiation protection, and image production and evaluation. Throughout the clinical and practicum aspects of the program, students will train in various medical facilities with experienced radiologic technologists.

Students are trained for employment as entry-level radiologic technologists in hospitals, outpatient imaging centers, mobile imaging services, and additional medical facilities. Upon completion of the program, graduates are eligible to sit for the national certification examination for Radiologic Technology administered by the American Registry of Radiologic Technologists (ARRT). Successful completion of this exam results in the designation of the title as a Registered Technologist in Radiography, or R.T. (R) (ARRT). The state of Texas also requires that individuals approved to sit for the national certification examination also apply for state licensure before being allowed to practice in this state.

# DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAM, ADVANCED TECHNICAL CERTIFICATE

The Diagnostic Medical Sonography Advanced Technical Certificate (ATC) at South Texas College is an approved program by the Southern Association of Colleges and Schools Accreditation Guidelines. The program provides educational and clinical experience that result in extensive knowledge in ultrasound physics and instrumentation, use of Doppler imaging, and cross-sectional anatomy and pathophysiology in the abdomen, pelvis, obstetrics, gynecology, and superficial structures. Throughout the clinical and practicum aspects of the program, students will train in various medical facilities with experienced sonographers.

The Diagnostic Medical Sonography Program is an extension of the STC Radiologic Technology Program. Application requirements for entrance into the program for 2017 will include an Associate of Applied Science Degree in Radiologic Technology acquired in an accredited program, current certification as a registered technologist by the American Registry of Radiologic Technologists (ARRT), and current licensure by the Texas Department of State Health Services or Texas Medical Board.

Effective in 2018, application requirements will change and entrance into the program will be extended to individuals who have earned an associate degree in additional selective nursing and allied health professions. The Radiologic Technology Department is currently revising the new selective admissions criteria.

Upon successful completion of the program, students will receive an Advanced Technical Certificate in Diagnostic Medical Sonography. Students will also be competent to challenge the abdomen and obstetrics specialty examinations, which are two of the various specialties offered by the American Registry for Diagnostic Medical Sonography (ARDMS) national examination.

# COMPUTED TOMOGRAPHY PROGRAM, CERTIFICATE

The Computed Tomography (CT) Certificate Program at South Texas College is designed to provide an opportunity for professional and personal advancement in the medical imaging profession for certified radiologic technologists. The CT Program consists of one mandatory didactic course and an optional clinical course. Registered technologists who are not currently employed in CT or employed part-time in CT may opt to enroll in the clinical course. Students in this course will be assigned to various clinical sites in order to complete their clinical training. Registered technologists who are currently employed full-time in computed tomography may be exempt from the clinical course and may complete their clinical hours at their place of employment.

## South Texas College Radiologic Technology Department Faculty and Staff Contact Information

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#### MISSION STATEMENT AND DEPARTMENT OBJECTIVES

#### COMPREHENSIVE VISION, MISSION AND PHILOSOPHY STATEMENTS

#### Vision

Our vision is to educate and develop highly qualified technologists in the field of medical imaging in order to improve the health of patients within our communities.

In achieving our vision, the Radiologic Technology Department strives to:

- Demonstrate integrity in representation to communities of interest and the public in pursuit of educational excellence in the field of diagnostic imaging;
- Provide learning activities that promote the synthesis of theory, use of current technology, competent clinical practices and professional values within the radiology discipline;
- Assure the department's organizational and administrative structure promotes and supports quality and effectiveness of the radiology educational process;
- Develop a prepared workforce of highly qualified technologists to serve the public through community service and continuing education.

#### **Mission Statement**

The mission of the Radiologic Technology Department is to prepare individuals to excel in patient care, performance in diagnostic procedures, and become integral members of the health care team.

The Radiologic Technology Department aspires to attain our mission by:

- Maintaining high standards of excellence in education;
- Creating an environment in which the development of human potential is the highest priority;
- Offering equal opportunity for all qualified students;
- Providing service to the community and opportunity for lifelong learning;
- Recognizing the cultural, racial and ethnic diversity of individuals and communities.

#### **Philosophy**

We value the art of innovation, creativity, and leadership in our pursuit to educate the future leaders of the radiology community. The Radiologic Technology Department also values the use of modern information technology throughout the educational experience as a means of achieving our goals.

#### **DEPARTMENT OBJECTIVES**

The Radiologic Technology Department has adopted the following objectives for the programs and certificates offered within the department:

- 1. A thorough knowledge of radiation protection and safety in diagnostic imaging procedures to include the principles and concepts involving basic interactions of radiation and/or sound waves with matter and possible biological effects.
- 2. Knowledge and demonstration of practical application in the professional and technical aspects of patient care related to medical imaging procedures.
- 3. Skill in demonstrating respect for interpersonal relationships including moral and ethical responsibilities to increase effective communication and empathy for the patient.
- 4. Provision of an understanding of the goals, philosophies and organization of the Radiologic Technology Department, affiliate radiology departments and an appreciation of the career in diagnostic imaging through knowledge of medical history as well as the evolution of radiology and its professional organizations.

- 5. Proficiency in comprehending the principles of the various modalities of imaging available to the profession and recognizing the common factors in the production of a diagnostic image regardless of the imaging system used.
- 6. Skill in all types of diagnostic imaging, maintain and/or troubleshoot malfunctions in processing systems, evaluate radiographs for the presence of artifacts and the ability to correct or compensate for processing errors.
- 7. Proficiency in applying the principles of structure and function within the human body, comprehensive study of physiology of the various systems, and the ability to correlate the anatomy from a topographic and sectional standpoint.
- 8. Ability to comprehend medical terminology, follow directions and communicate effectively with others.
- 9. Understanding of disease entities and their influence on diagnostic techniques, enabling the student to produce optimal diagnostic images and ensure effective care to the patient.
- 10. Familiarization with routine diagnostic procedures and supplementary techniques such as ultrasound, computerized tomography, angiography, nuclear medicine, radiation therapy, magnetic resonance imaging, cardiovascular angiography and mammography.
- 11. Competence in cardiopulmonary resuscitation.
- 12. Assure that both clinical and didactic education relates to practice needs, prepare competent technologists and foster mutual appreciation and collaboration among the health professions.

#### **CURRICULUM FOUNDATION AND COMPETENCIES**

South Texas College is determined to prepare students with the knowledge and skills needed to succeed in today's dynamic work environment. The 1991 report *What Work Requires of Schools: A SCANS Report for America 2000* of the Secretary's Commission on Achieving Necessary Skills (SCANS) identified a three-part foundation and five basic competencies that have come to serve as guiding principles for most career-oriented curricula. Toward this end, the following SCANS foundation and competencies have been incorporated into the Radiologic Technology Department curriculum:

#### **SCANS:** Three-Part Foundation

- Basic Skills: Reads, writes, performs arithmetic operations, listens, and speaks.
  - A. *Reading:* Locates, understands, and interprets written information in prose and in documents such as manuals, graphs, and schedules.
  - B. *Writing:* Communicates thoughts, ideas, information, and messages in writing; and creates documents such as letters, directions, manuals, reports, graphs, and flow charts.
  - C. *Arithmetic:* Performs basic computations and approaches practical problems by choosing appropriately from a variety of mathematical techniques.
  - D. *Listening*: Receives, attends to, interprets, and responds to verbal messages and other cues
  - E. Speaking: Organizes ideas and communicates orally.
- **Thinking Skills**: Thinks creatively, makes decisions, solves problems, visualizes, knows how to learn, and reasons.
  - A. *Creative Thinking:* Generates new ideas.
  - B. *Decision Making:* Specifies goals and constraints, generates alternatives, considers risks, and evaluates and chooses best alternative.
  - C. Problem Solving: Recognizes problems and devises and implements plan of action.

- D. Seeing Things in the Mind's Eye: Organizes and processes symbols, pictures, graphs, objects, and other information.
- E. *Knowing How to Learn:* Uses efficient learning techniques to acquire and apply new knowledge and skills.
- F. *Reasoning:* Discovers a rule or principle underlying the relationship between two or more objects and applies it when solving a problem.
- **Personal Qualities**: Displays responsibility, self-esteem, sociability, self-management, and integrity and honesty.
  - A. Responsibility: Exerts a high level of effort and perseveres towards goal attainment.
  - B. Self-Esteem: Believes in own self-worth and maintains a positive view of self.
  - C. *Sociability:* Demonstrates understanding, friendliness, adaptability, empathy, and politeness in group settings.
  - D. *Self-Management:* Assesses self accurately, sets personal goals, monitors progress, and exhibits self-control.
  - E. *Integrity/Honesty:* Chooses ethical courses of action.

#### **SCANS:** Five Competencies

- **Resources:** Identifies, organizes, plans, and allocates resources.
  - A. *Time:* Selects goal-relevant activities, ranks them, allocates time, and prepares and follows schedules.
  - B. *Money:* Uses or prepares budgets, makes forecasts, keeps records, and makes adjustments to meet objectives.
  - C. *Material and Facilities:* Acquires, stores, allocates, and uses materials or space efficiently.
  - D. *Human Resources:* Assesses skills and distributes work accordingly, evaluates performance and provides feedback.
- **Interpersonal:** Works with others.
  - A. *Participates as Member of a Team:* Contributes to group effort.
  - B. Teaches Others New Skills.
  - C. Serves Clients/Customers: Works to satisfy customers' expectations.
  - D. *Exercises Leadership:* Communicates ideas to justify position, persuades and convinces others, responsibly challenges existing procedures and policies.
  - E. *Negotiates:* Works toward agreements involving exchange of resources, resolves divergent interests.
  - F. Works with Diversity: Works well with men and women from diverse backgrounds.
- **Information:** Acquires and uses information.
  - A. Acquires and Evaluates Information.
  - B. Organizes and Maintains Information.
  - C. Interprets and Communicates Information.
  - D. Uses Computers to Process Information.
- **Systems:** Understands complex interrelationships.
  - A. *Understands Systems:* Knows how social, organizational, and technological systems work and operates effectively with them.
  - B. *Monitors and Corrects Performance:* Distinguishes trends, predicts impacts on system operations, diagnoses deviations in systems' performance and corrects malfunctions.

- C. *Improves or Designs Systems:* Suggests modifications to existing systems and develops new or alternative systems to improve performance.
- **Technology:** Works with a variety of technologies.
  - A. *Selects Technology:* Chooses procedures, tools, or equipment including computers and related technologies.
  - B. *Applies Technology to Task:* Understands overall intent and proper procedures for setup and operation of equipment.
  - C. *Maintains and Troubleshoots Equipment:* Prevents, identifies, or solves problems with equipment, including computers and other technologies.

Students will be required to think, use logic and critically evaluate in this department. Each curriculum is designed to bring students to the realization of the above named skills and those required for successful employment in the field of medical radiology. The department faculty endeavors to maintain the highest standards in each student's education.

## RADIOLOGIC TECHNOLOGY PROGRAM, ASSOCIATE OF APPLIED SCIENCE DEGREE

#### **ADMISSION REQUIREMENTS**

The Radiologic Technology Program has a competitive entry selection process based on a competitive point system. Selection of students is made one time a year at the end of the spring semester. The deadline for applying to the program is the last Friday in May of the current year. Because the number of students accepted into the Radiologic Technology Program is limited, all candidates who wish to apply should call (956) 872-3049 to schedule a student information session in order to be fully informed of the application process and receive additional programmatic information. Each applicant must meet the following criteria in order to apply to the program:

- A. Participate in the required Prospective Student Information Session. For the session schedule, access the information online at <a href="http://nah.southtexascollege.edu">http://nah.southtexascollege.edu</a> or contact the Radiologic Technology Program at (956) 872-3049.
- B. Be admitted to the college as a high school graduate or GED equivalent.
- C. Meet TSI College Readiness Standards, or meet TSI Exemption Standards.
- D. Complete the ACT Exam including the writing component. Achieve an ACT composite of 19 or above and a minimum of 16 in all individual areas (English, Math, Reading, and Science). ACT writing score must be a 6 or above. Scores must be current within the last five (5) years. ACT exemptions are not permitted.
- E. Complete all prerequisite courses with a minimum grade of "B" as listed in the Radiologic Technology Program degree plan. BIOL 2401 and Mathematics Elective courses must be current within the last 5 years. RADR 1309 must be current within 2 years from the application date.
- F. Earn a minimum cumulative GPA of 3.0 on a 4.0 scale in all courses listed in the Radiologic Technology degree plan. This includes courses completed through South Texas College and transfer courses.
- G. Be 18 years of age or older.
- H. Pass a criminal background check, 10-panel drug screen through approved providers, and complete all required immunizations including Hepatitis B series. Students with criminal histories must provide proof of certification eligibility from the American Registry of Radiologic Technologists (ARRT) prior to application. For more information contact the NAH Clinical Affairs Specialist at 872-3022.
- I. Meet technical standards as stated by the Program.
- J. Submit a completed Program application by the stated deadline. For more information contact the Radiologic Technology Program at (956) 872-3049 or access the information online at http://nah.southtexascollege.edu.

Students who have met the above requirements may submit their application. Applications will be evaluated through a competitive selection process. Due to program size limitations, meeting application requirements does not guarantee admission into the program. A new applicant pool is established for each admission period. Applicants who were not admitted for the current application period must reapply to be considered for a later application period.

#### RADIOLOGIC TECHNOLOGY AAS DEGREE PLAN

The Radiologic Technology Associate of Applied Science (AAS) Degree Plan and course descriptions are located in the Appendices of the student handbook under Appendix A and Appendix B. Only students who have been accepted into the program will be allowed to enroll in

the radiology courses. All radiology courses are scheduled during specific semesters throughout the two-year educational experience. Students must successfully pass each course offered during that semester in order to proceed to the next level within the program.

There are three co-requisites within the degree plan that must be completed by the end of the twoyear program in order to be eligible to graduate and earn an AAS. If all co-requisites have not been completed prior to application, students are responsible for scheduling themselves and completing these courses prior to the end of the program. All co-requisite courses must be scheduled outside of program scheduled hours and within the duration of the length of the program in order to graduate.

#### **COURSE REGISTRATION**

Students who have been accepted into the Radiologic Technology Program will be registered for all radiology specific (RADR) courses each semester. Registration for all RADR courses is completed by the Radiology Technology Program Chair. Students who have not completed their co-requisites prior to entrance into the program will be responsible for registering themselves for these courses within the two-year degree plan. Students may register for the co-requisite courses in any method as outlined in the college catalog (web, on-site, etc.).

#### **PROGRAM COSTS**

A breakdown of the primary costs of the Radiologic Technology Program is included below. Each cost that is listed is approximated due to the continuous changes within the college, associated vendors/accreditation agencies, and student options in purchasing supplies. Please refer to the STC Catalog for the most current information on the fee structure for tuition and related fees per number of credit hours per semester.

Tuition & Registration Fees: \$9000.00

(includes all courses in degree plan)

**Liability Insurance:** \$10.00/semester x 6 semesters

(\$60.00)

Medical or Accidental Insurance: Cost will vary amongst providers

**Dosimeter Fee:** \$10.00/month x 6 semesters

(\$230.00)

Personalized Marker Fee: \$35.00

(includes two sets of markers)

**ARRT Exam Fee:** \$200.00

(national board licensing exam fee)

TMB Application Fee: \$80.00

(Texas license fee)

**Books:** \$900.00

(includes all books needed throughout the program)

#### **Uniforms:** \$500.00

(includes lab coats (1), uniforms (5), shoes (1) and program patches (5): cost will vary on amount student purchases)

#### RADIOLOGIC TECHNOLOGY PROGRAM DRESS CODE

As representatives of the STC Radiologic Technology Program as well as the profession of radiology, students are expected to maintain a professional appearance and adhere to the following dress code during program hours and additional program related activities. This dress code must be followed at all times during class and clinic hours and at all times while on campus. This includes before and after class, while in the library, CLE, computer lab, during class/lab breaks, lab sessions, meetings, program events, etc. unless otherwise stated by the course instructor. Failure to adhere to the established dress code is considered noncompliant and unprofessional behavior.

Should a student not satisfy any segment of the program dress code requirements while in class or the clinical setting, he or she will be immediately dismissed until compliance is established. The dismissal will result in a documented absence for the day.

#### **Program Uniform:**

- Students are required to purchase Cherokee brand, pewter gray scrub tops and bottoms. Due to the variety in the shades of grays with other manufacturers, students will only be allowed to wear this brand and scrub color.
- The style of top and bottom are of the students choosing (V-neck, tie back, pockets, etc.); however, the scrubs must be solid pewter. The scrubs may not have any additional colors, patterns, or contrast stitching.
- Students are required to have the STC Radiologic Technology Program patch sewn on the right shoulder of their scrub tops.
- Students will have the option to wear undershirts under their scrub tops. Undershirts must be solid white and may be either short or long-sleeved. These undershirts may be worn in the event that the student finds it cold in the classroom or clinical site.
- Students will need to purchase one long-sleeved white lab coat with the program patch sewn on the right shoulder. Students will have the option to wear lab coats both in the classroom or clinical setting; however, there will be occasions that will require the wearing of a lab coat, so each student will need to have at least one. The lab coat may be either jacket length or full length. Lab coats may be purchased at any location as long as they adhere to program guidelines.
- Students are not permitted to wear sweaters or jackets in the clinical/practicum site at any time. In times of cold weather, students may wear their personal sweaters/jackets as they leave their vehicles and enter the clinical affiliate; however, they must be removed once the student has entered the building.
- Students are permitted to wear outerwear such as sweaters and/or jackets over their scrubs in the radiology classroom only. All outerwear must be solid in color, free from logos/prints and reflect a professional demeanor. Pullover sweaters that cover the scrub tops are not permitted.
- Students are to arrive and depart from the clinical/practicum site and the classroom in full uniform, no exceptions.

<sup>\*</sup>Meals, transportation, childcare, etc., not included.

<sup>\*</sup>Students may be required to purchase ancillary learning resources in addition to course textbooks.

<sup>\*</sup>All fees are subject to change.

- At no time are students allowed to arrive at the clinical/practicum site in street clothes or change into street clothes upon departure from a clinical site.
- The program uniform is not to be worn as personal attire in public. Discretion should also be used when wearing the uniform during lunch and/or after class or clinic.

#### Footwear:

- Footwear will be of the students choosing, but must adhere to certain guidelines. All footwear worn must be completely white without any additional colors present on the shoe. The entire foot must be covered by the footwear, including toes and heels (e.g., a nursing shoe with a heel-strap is unacceptable). Acceptable footwear includes nursing or athletic-type shoes. Cloth-covered footwear will not be permitted due to the permeability of the fabric.
- Shoes and laces must be kept clean at all times and in presentable condition. Shoe laces must remain tied.
- Socks must be worn with shoes at all times and must be completely white without any additional colors. The socks may be ankle or crew length.

#### Hair/Facial Hair:

- Hair must be clean and well groomed. Hair that is collar length or longer must be neatly pulled back and secured to the head. Hair must remain off of the shoulders and back. Hair or bangs that fall in the eyes or hang in front of the face must be pinned up securely. This applies to both males and females.
- Unnatural hair colors or extreme styles are not permitted.
- Hair accessories must be conservative, free from ornamentation and/or excessive size. Large bows, scarves, bandanas, barrettes/clips/headbands with rhinestones, and additional large hair accessories are not acceptable. Hair accessories must also be neutral in color to include black, white, beige, gray, or brown. Additional colors are not acceptable.
- Males must be clean-shaven on a daily basis. If males have a beard, mustache and/or goatee, they must be neatly trimmed close to the face. Facial hair must be neatly groomed and shaped so that hair does not extend into the mouth and/or neck.

#### Jewelry/Tattoos:

- No jewelry is permitted with the exception of one wrist watch. Wearable technology is not permitted.
- Students who have visible tattoos on their arms or wrists are required to have them covered at all times. Visible tattoos located on other areas of the body may also need to be covered if stipulated by the radiology faculty and/or clinical facility. The tattoos may be covered by the wearing of a bandage, undershirt or by the wearing of a lab coat. This applies both in the classroom as well as the clinical site.

#### Student Identification/Radiation Dosimeters:

- A picture identification, which is provided by the college to the student at no charge, is required to be worn on collar or chest area at all times during all clinical and practicum sessions. This picture identification must be free of stickers, pins, etc. If additional picture identification is required, the student must obtain one from student services. A fee for additional picture identifications is required and the student will be responsible for this cost.
- Student IDs are to be worn on the V-neck of the scrub top, front pocket, or lapel of the lab coat. ID holders must be conservative and will require approval by the course instructor. Students are not permitted to wear lanyards at any time.

• Students will receive a personnel radiation dosimeter on a monthly basis that must be worn at all times, without exception. Each dosimeter will include the student's name and must be worn by that student only. The dosimeters are to be worn consistently on the collar of the uniform at thyroid level and must remain in the same location at all times. It is unacceptable for the radiation dosimeter to be worn at any other area of the body (such as the V-neck of the scrub top) as this may alter the ability of the dosimeter to provide an accurate reading.

#### **Additional Requirements:**

- It is mandatory that students purchase two (2) sets of initialed lead markers and have the markers with them at all times. If a student misplaces or loses one or both sets of markers, the radiology faculty must be notified immediately so that new ones may be ordered. Due to the length of time that is required to receive the markers once they are ordered, the radiology faculty will provide markers to the student until the initialed set of markers arrive. The cost of the markers will be the responsibility of the student. At no time are students permitted to be in the clinical/practicum site without markers under any circumstance.
- Students must have their clinical binders and pocket positioning books at all times during each clinical/practicum session.
- Good oral hygiene and clean bodies free of odor is essential.
- Cosmetics should be applied discreetly.
- Perfume, cologne or odor due to smoking is not permitted.
- Caps, hats, or sunglasses may not be worn at any time in the classroom or clinical site.
- Nails must be trimmed short and not extend beyond the tip of the finger. Nails must be free of polish. Absolutely no acrylic or artificial nails permitted.

#### **RADIATION DOSIMETERS**

The radiation dosimeter that is issued to each student is of vital importance as a radiology student. The dosimeter is considered part of the appropriate dress code and will be treated with great care. The radiation dosimeter is provided for the student's protection by monitoring radiation exposure rates. The dosimeter does not protect the student from ionizing radiation; it is a device that measures the amount of radiation a person received. The material located in the dosimeter is extremely sensitive and will provide an inaccurate reading if exposed to excessive heat, humidity or wetness. The dosimeters are sent off monthly to the dosimetry company for determination of the dose that was received during a specific time frame.

Due to the vital importance of the radiation protection for the students and the role of the dosimeter in measuring radiation exposure, the following regulations are in effect:

- During all clinical/practicum and classroom hours, students must wear a current radiation dosimeter.
- Under no circumstances is a student permitted to let anyone else wear his or her radiation dosimeter
- Students arriving at the clinical/practicum site or classroom without their radiation dosimeters will be dismissed immediately and will be marked as absent for the day.
- If a radiation dosimeter is lost, stolen, damaged, or becomes otherwise unable to monitor radiation dose, the radiology faculty must be contacted immediately. The student will not be allowed to attend clinical/practicum site until a new dosimeter is obtained from the radiation dosimetry company. It will be the responsibility of the student to obtain a new radiation dosimeter from the faculty, and incur any costs that the company may charge. The dosimeter may be sent by overnight mail and it is the student's responsibility for the fees involved with this service.

#### **Radiation Dosimeter Exchange**

Radiation dosimeters must be changed by the last day of every month. It is the responsibility of the student to obtain a new radiation dosimeter from the radiology faculty each month. If the first of the month falls on a clinic day, weekend, or holiday, the student must obtain the new dosimeter prior to this time during class hours.

- Students are to obtain dosimeters during classroom hours prior to the assigned time each month. At this time, the used dosimeters will be collected as well. It is each student's responsibility to request a new dosimeter each month. A new dosimeter will not be issued if the student does not have the used dosimeter.
- Should a student be absent on the day of the radiation dosimeter exchange, he or she will be responsible for obtaining a current dosimeter from the radiology faculty during the following class session.
- An overdue radiation dosimeter is considered unacceptable and will be treated in the same manner as if the student did not wear the dosimeter at all. If the student does not have an up-to-date radiation dosimeter at the clinical/practicum site or classroom, he/she will be dismissed immediately and will be marked as absent for the day.

#### **Radiation Dose**

- The maximum permissible dose that a radiology student may receive in one year is .1 rem (100 mrem). If an individual student's radiation dosimeter reading is excessive (but below the annual limit), the radiology faculty will review the report with the student to identify the probable cause of the reading. If improvement is not noted by the subsequent month, the student may be removed from clinical/practicum and counseled as how to further reduce their radiation exposure readings.
- Students who receive a reading that is excessive in nature and can be traced back to a specific incident unrelated to radiology will need to report and document the incident to the radiology faculty immediately. Faculty will contact the dosimeter company and request to have the dosimetry report altered accordingly if required. Any associated expenses will be the sole responsibility of the student.
- An unusually high reading on a radiation dosimeter due to exposure in the clinical site may result in the removal of the student from the clinical/practicum site until the source of the problem can be traced.
- Fluoroscopy, special procedures and portable radiography are the highest sources of radiation exposure. The radiation dosimeter must be worn <u>outside</u> of the protective apron at the thyroid level during these examinations.
- If a dose exceeds the annual limit for any reason, the student will not be allowed to attend the clinical site until the report can be altered (if due to an incident not related to radiology) or the cause of such excessive exposure can be determined. This may jeopardize the student's continuance in the program.

#### **Radiation Dosimetry Report**

• Each student must initial the radiation dosimetry report as it arrives. The reports arrive monthly and it is the responsibility of the student to view and initial all reports in a timely fashion. When the report arrives, it will be given to each student for review of his/her exposure readings. If the student is not present for class when the report arrives, he/she is responsible for initialing the report, which will be located in the office of the radiology faculty. All radiology students are required to initial each monthly report.

#### **CLINICAL COMPETENCY REQUIREMENTS**

The American Registry of Radiologic Technologists (ARRT) requires that a specific number of core clinical competencies be successfully completed in order to establish eligibility for ARRT certification. There are 37 mandatory radiologic procedures and 34 elective radiologic procedures. Students must demonstrate competency in all 37 mandatory procedures. These procedures should be performed on patients; however, up to 8 mandatory procedures may be simulated if demonstration on patients is not feasible. The ARRT also mandates that students demonstrate competency in at least 15 of the 34 elective radiologic procedures. Electives may be demonstrated on patients, phantoms or as simulations. There is no limit for simulations on elective procedures. The 37 mandatory procedures combined with the 15 elective procedures total 52 procedures the student must complete during the two-year clinical experience.

The competencies must be completed as required by the program, without exception. Once an examination is performed for a competency, it is checked off the ARRT clinical competency requirement list, and it may not be used as a competency again.

#### GENERAL PROCEDURES DURING CLINICAL/PRACTICUM SESSIONS

Students will be required to adhere to the following guidelines while attending all clinical and practicum sessions:

- Students should not be in imaging modalities other than the diagnostic/surgery area of their clinical/practicum assignments unless assigned by the radiology faculty.
- Students are permitted to assist staff technologists and additional staff members in other areas if requested.
- Students are allowed to receive a minimal amount of radiation during the course of the program and close proximity to the primary x-ray beam will greatly increase radiation exposure. For this reason, students are prohibited from holding patients at any time during a radiographic exposure.
- Students are prohibited from performing fluoroscopy at any time, unless instructed by and under the direct supervision of a radiologist (the physician who interprets radiographic images).
- Students should never be in the primary beam during any type of radiographic exposure.
- At no time can the student perform a medical radiograph of another student or staff member of a clinical affiliate.
- All students must perform procedures under the direct supervision of an ARRT registered technologist, R.T. (R), until they are deemed competent in that procedure. Once they are deemed competent they may perform the said procedure with indirect supervision. At no time is a student allowed to perform a procedure without a registered technologist in the immediate area.
- There are certain circumstances in which students will only be allowed to perform examinations under direct supervision due to liability and safety reasons for both the student and the patient. These circumstances are as follows:
  - Mobile examinations
  - o Surgical radiography
  - Isolation procedures
  - o Repeat examinations

- Students may perform any of these examinations independently if they are deemed as competent; however, they must be accompanied by a registered ARRT radiologic technologist at all times.
- All images submitted to the radiologist must be cleared with a registered technologist before they are submitted throughout the duration of the two-year experience, regardless if they are performed under direct or indirect supervision.
- If an emergency arises and a student needs to be reached during clinic/practicum sessions, a message may be left with Angie Reyes, Faculty Secretary, at (956)872-3049.
- If a student has a disagreement with a staff member at a clinical facility, with another fellow student, or if a situation of concern arises, the student is to refrain from any actions and notify the radiology faculty immediately. At no time should a student be disrespectful to any individual in the clinical affiliate under any circumstances.
- If a clinical affiliate requests that a specific student not attend that facility for any reason, that request will be put in writing and a copy placed on the student's permanent file. If such a request occurs, the student may jeopardize his/her continuance in the Radiologic Technology Program.

#### **GRADUATION REQUIREMENTS**

Upon satisfactory completion of the curriculum and prescribed course of study as outlined for the Radiologic Technology Program, a student will be eligible to receive the Associate in Applied Science Degree. The student must complete Summer Session I of the second year in the program to complete the graduation process from the program, STC, and receive a diploma indicating such graduation. The general requirements indicate the student must:

- 1. Satisfactorily complete the course of study for the declared major;
- 2. Maintain a minimum average of "C" in all didactic courses and minimum of "B" in all clinical/practicum courses;
- 3. Complete final semester coursework including CAPSTONE requirements
- 4. Satisfy all program exit requirements;
- 5. Pay all debts to the college prior to graduation;
- 6. Submit an application for graduation to the Office of Admissions and Records twelve (12) weeks prior to the end of the spring semester or 30 days prior to the end of the summer term in which the degree/certificate is to be conferred.

Students are required to participate in the commencement exercises. Students who complete the requirements for graduation during the summer will apply for graduation during the appropriate semester and participate in the May Commencement Exercises.

#### ARRT RADIOGRAPHY CERTIFICATION

Certification is the initial recognition of an individual who satisfies certain standards within a profession. Employers, state licensing agencies, and federal regulators look at the American Registry of Radiologic Technologists (ARRT) credential as an indication that a person has met a recognized national standard for medical imaging, interventional procedures, and radiation therapy professionals.

As outlined in ARRT's "Equation for Excellence," candidates for ARRT's Radiography certification must meet basic education, ethics, and examination requirements to become eligible. The following sections outline the eligibility requirements for all three areas. Additional eligibility details can be found in the Radiography Certification Handbook at

https://www.arrt.org/pdfs/Disciplines/Handbooks/Handbook.pdf

#### **Education Requirements for Radiography Certification:**

Radiography certification candidates must have — within the past three years\* — successfully completed a radiography educational program that is accredited by a mechanism acceptable to the ARRT. Beginning on January 1, 2015, all candidates for certification in Radiography must have earned an academic degree before becoming certified.

As part of their education, candidates must also demonstrate competency in didactic coursework and an ARRT-specified list of clinical procedures by completing the Radiography Didactic and Clinical Competency Requirements.

\* Candidates graduating from an educational program by December 31, 2012, will have five years to establish eligibility for ARRT certification, as opposed to the three years that is available to those who complete their program beginning January 1, 2013.

#### Ethics Requirements for Radiography Certification:

Every candidate for certification must, according to ARRT governing documents, "be a person of good moral character and must not have engaged in conduct that is inconsistent with the ARRT Rules of Ethics," and they must "agree to comply with the ARRT Rules and Regulations and the ARRT Standards of Ethics." ARRT investigates all potential violations in order to determine eligibility.

The ARRT Rules and Regulations can be found at <a href="https://www.arrt.org/pdfs/Governing-Documents/Rules-and-Regulations.pdf">https://www.arrt.org/pdfs/Governing-Documents/Rules-and-Regulations.pdf</a>

The ARRT Standards of Ethics can be found at <a href="https://www.arrt.org/pdfs/Governing-Documents/Standards-of-Ethics.pdf">https://www.arrt.org/pdfs/Governing-Documents/Standards-of-Ethics.pdf</a>

Issues addressed by the Rules of Ethics include convictions, criminal procedures, or military court martials as described below:

- Felony;
- Misdemeanor;
- Criminal procedures resulting in a plea of guilty or nolo contendere (no contest), a verdict of guilty, withheld or deferred adjudication, suspended or stay of sentence, or pre-trial diversion.

Juvenile convictions processed in juvenile court and minor traffic citations not involving drugs or alcohol do *not* need to be reported.

Additionally, candidates for certification are required to disclose whether they have ever had any license, registration, or certification subjected to discipline by a regulatory authority or certification board (other than ARRT), as well as any honor code violations that may have occurred while they attended school.

Candidates may complete a pre-application to determine their ethics eligibility prior to enrolling in or during their educational program. The pre-application can be found at <a href="https://www.arrt.org/pdfs/Ethics/Ethics-Review-Pre-Application.pdf">https://www.arrt.org/pdfs/Ethics/Ethics-Review-Pre-Application.pdf</a>

#### **Examination Requirements for Radiography Certification:**

After having met the education and ethics requirements, candidates for Radiography certification must pass ARRT's Radiography examination, which assesses the knowledge and cognitive skills underlying the intelligent performance of the tasks typically required of staff technologists practicing

at entry-level within the discipline. Applications for the exam are found in the certification handbooks which candidates receive from their educational program. When completing their applications, candidates should keep a few things in mind:

- Candidates for primary certification may mail their application up to three months prior to their anticipated graduation date.
- All photos, signatures, and dates of signatures on an application form must occur within the six months before the date the application is received at the ARRT office.
- Be sure to include the correct application fee.

The Radiography Content Specifications provide an outline of the topics covered in the exam. Since ARRT uses many references to build its exams, it does not provide specific lists of study materials or textbooks, nor does it recommend or endorse any review programs, mock registries, or study guides.

Individuals who are determined eligible by ARRT will receive, via the USPS, a Candidate Status Report (CSR) that details eligibility status and provides information on scheduling an exam appointment within the 90-day window. The CSR also addresses how to change an exam window or appointment, and how to prove identity at the test center.

Candidates are allowed three attempts to pass an exam, and they must complete the three attempts within a three-year period that begins with the initial ARRT examination window start date.

### DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAM, ADVANCED TECHNICAL CERTIFICATE

#### **ADMISSION REQUIREMENTS**

The Diagnostic Medical Sonography Program has a competitive entry selection process based on a competitive point system. Selection of students is made one time a year during the fall semester. The deadline for applying to the program is the first Friday in September of the current year. Because the number of students accepted into the Diagnostic Medical Sonography Program is limited, all candidates who wish to apply should call (956) 872-3049 to schedule a student information session in order to be fully informed of the application process and receive additional programmatic information. Each applicant must meet the following criteria in order to apply to the program:

- A. Participate in the required Prospective Student Information Session. For the session schedule, access the information online at <a href="http://nah.southtexascollege.edu">http://nah.southtexascollege.edu</a> or contact the Radiologic Technology Program at (956) 872-3049.
- B. Be admitted to the college as a high school graduate or GED equivalent.
- C. Hold an Associate of Applied Science Degree in Radiologic Technology.
- D. Provide proof of current American Registry of Radiologic Technologist (ARRT) Certification as a Radiologic Technologist.
- E. Provide proof of current licensure by the Texas Department of State Health Services or Texas Medical Board as a Medical Radiologic Technologist.
- F. Pass a criminal background check, 10-panel drug screen through approved providers, and complete all required immunizations including Hepatitis B series. Students with criminal histories must provide proof of certification eligibility from the American Registry of Radiologic Technologists (ARDMS) prior to application. For more information contact the NAH Clinical Affairs Specialist at 872-3022.
- G. Meet technical standards as stated by the Diagnostic Medical Sonography Program.
- H. Satisfy healthcare agency requirements prior to clinical practice.

Students who have met the above requirements may submit their application. Applications will be evaluated through a competitive selection process. Due to program size limitations, meeting application requirements does not guarantee admission into the program. A new applicant pool is established for each admission period. Applicants who were not admitted for the current application period must reapply to be considered for a later application period.

#### DIAGNOSTIC MEDICAL SONOGRAPHY ACT CURRICULUM

The Diagnostic Medical Sonography Program Advanced Technical Certificate (ATC) curriculum and course descriptions are located in the Appendices of the student handbook under Appendix C and Appendix D. Only students who have been accepted into the program will be allowed to enroll in the sonography courses. All sonography courses are scheduled during specific semesters throughout the educational experience. Students must successfully pass each course offered during that semester in order to proceed to the next level within the program.

#### **COURSE REGISTRATION**

Students who have been accepted into the Diagnostic Medical Sonography Program will be registered for all courses within the curriculum each semester. Registration for all courses is completed by the Radiology Technology Program Chair.

#### **PROGRAM COSTS**

A breakdown of the primary costs of the Diagnostic Medical Sonography Program is included below. Each cost that is listed is approximated due to the continuous changes within the college, associated vendors/accreditation agencies, and student options in purchasing supplies. Please refer to the STC Catalog for the most current information on the fee structure for tuition and related fees per number of credit hours per semester.

**Tuition & Registration Fees:** \$5200.00

(includes all courses in curriculum)

**Liability Insurance:** \$10.00/semester x 6 semesters

(\$60.00)

Medical or Accidental Insurance: Cost will vary amongst providers

ARDMS Exam Fee: \$400.00

(fee for national board licensing exam to include \$200 for the Physics SPI examination and \$200

for one specialty examination)

**Books:** \$900.00

(includes all books needed throughout the program)

**Uniforms:** \$500.00

(includes lab coats (1), uniforms (5), shoes (1) and program patches (5): cost will vary on amount student

purchases)

#### DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAM DRESS CODE

As representatives of the STC Diagnostic Medical Sonography Program as well as the profession of sonography, students are expected to maintain a professional appearance and adhere to the following dress code during program hours and additional program related activities. This dress code must be followed at all times during class and clinic hours and at all times while on campus. This includes before and after class, while in the library, CLE, computer lab, during class/lab breaks, lab sessions, meetings, program events, etc. unless otherwise stated by the course instructor. Failure to adhere to the established dress code is considered noncompliant and unprofessional behavior.

Should a student not satisfy any segment of the program dress code requirements while in class or the clinical setting, he or she will be immediately dismissed until compliance is established. The dismissal will result in a documented absence for the day.

#### **Program Uniform:**

• Students are required to purchase Cherokee brand, Caribbean blue scrub tops and bottoms. Due to the variety in the shades of grays with other manufacturers, students will only be allowed to wear this brand and scrub color.

<sup>\*</sup>Meals, transportation, childcare, etc., not included.

<sup>\*</sup>Students may be required to purchase ancillary learning resources in addition to course textbooks.

<sup>\*</sup>All fees are subject to change.

- The style of top and bottom are of the students choosing (V-neck, tie back, pockets, etc.); however, the scrubs must be solid pewter. The scrubs may not have any additional colors, patterns, or contrast stitching.
- Students are required to have the STC Diagnostic Medical Sonography Program patch sewn on the right shoulder of their scrub tops.
- Students will have the option to wear undershirts under their scrub tops. Undershirts must be solid black and may be either short or long-sleeved. These undershirts may be worn in the event that the student finds it cold in the classroom or clinical site.
- Students will need to purchase one long-sleeved white lab coat with the program patch sewn on the right shoulder. Students will have the option to wear lab coats both in the classroom or clinical setting; however, there will be occasions that will require the wearing of a lab coat, so each student will need to have at least one. The lab coat may be either jacket length or full length. Lab coats may be purchased at any location as long as they adhere to program guidelines.
- Students are not permitted to wear sweaters or jackets in the clinical/practicum site at any time. In times of cold weather, students may wear their personal sweaters/jackets as they leave their vehicles and enter the clinical affiliate; however, they must be removed once the student has entered the building.
- Students are permitted to wear sweaters and/or jackets over their scrubs in the radiology classroom only. All outerwear must be solid in color, free from logos/prints and reflect a professional demeanor. Pullover sweaters that cover the scrub tops are not permitted.
- Students are to arrive and depart from the clinical/practicum site and the classroom in full uniform, no exceptions.
- At no time are students allowed to arrive at the clinical/practicum site in street clothes or change into street clothes upon departure from a clinical site.
- The program uniform is not to be worn as personal attire in public. Discretion should also be used when wearing the uniform during lunch and/or after class or clinic.

#### Footwear:

- Footwear will be of the students choosing, but must adhere to certain guidelines. All footwear worn must be completely black without any additional colors present on the shoe. The entire foot must be covered by the footwear, including toes and heels (e.g., a nursing shoe with a heel-strap is unacceptable). Acceptable footwear includes nursing or athletic-type shoes. Cloth-covered footwear will not be permitted due to the permeability of the fabric
- Shoes and laces must be kept clean at all times and in presentable condition. Shoe laces must remain tied.
- Socks must be worn with shoes at all times and must be completely black without any additional colors. The socks may be ankle or crew length.

#### Hair/Facial Hair:

- Hair must be clean and well groomed. Hair that is collar length or longer must be neatly pulled back and secured to the head. Hair must remain off of the shoulders and back. Hair or bangs that fall in the eyes or hang in front of the face must be pinned up securely. This applies to both males and females.
- Unnatural hair colors or extreme styles are not permitted.
- Hair accessories must be conservative, free from ornamentation and/or excessive size. Large bows, scarves, bandanas, barrettes/clips/headbands with rhinestones, and large hair

- accessories are not acceptable. Hair accessories must also be neutral in color to include black, white, beige, gray, or brown. Additional colors are not acceptable.
- Males must be clean-shaven on a daily basis. If males have a beard, mustache and/or goatee, they must be neatly trimmed close to the face. Facial hair must be neatly groomed and shaped so that hair does not extend into the mouth and/or neck.

#### Jewelry/Tattoos:

- No jewelry is permitted with the exception of one wrist watch. Wearable technology is not permitted.
- Students who have visible tattoos on their arms or wrists are required to have them covered at all times. Visible tattoos located on other areas of the body may also need to be covered if stipulated by the radiology faculty and/or clinical facility. The tattoos may be covered by the wearing of a bandage, undershirt or by the wearing of a lab coat. This applies both in the classroom as well as the clinical site.

#### **Student Identification:**

- A picture identification, which is provided by the college to the student at no charge, is required to be worn on collar or chest area at all times during all clinical and practicum sessions. This picture identification must be free of stickers, pins, etc. If additional picture identification is required, the student must obtain one from student services. A fee for additional picture identifications is required and the student will be responsible for this cost.
- Student IDs are to be worn on the V-neck of the scrub top, front pocket, or lapel of the lab coat. ID holders must be conservative and will require approval by the course instructor. Students are not permitted to wear lanyards at any time.

#### **Additional Requirements:**

- Students must have their clinical binders and pocket ultrasound scanning books at all times during each clinical/practicum session.
- Good oral hygiene and clean bodies free of odor is essential.
- Cosmetics should be applied discreetly.
- Perfume, cologne or odor due to smoking is not permitted.
- Caps, hats, or sunglasses may not be worn at any time in the classroom or clinical site.
- Nails must be trimmed short and not extend beyond the tip of the finger. Nails must be free of polish. Absolutely no acrylic or artificial nails permitted.

#### **CLINICAL COMPETENCY REQUIREMENTS**

The Diagnostic Medical Sonography Program requires that a specific number of clinical competencies be successfully completed per semester. The competencies must be completed as required by the program, without exceptions.

#### GENERAL PROCEDURES DURING CLINICAL/PRACTICUM SESSIONS

Students will be required to adhere to the following guidelines while attending all clinical and practicum sessions:

- Students should not be in imaging modalities other than ultrasound unless assigned by the sonography faculty.
- Students are permitted to assist staff technologists and additional staff members in other areas if requested.
- All students must perform procedures under the direct supervision of an ARDMS registered technologist, until they are deemed competent in that procedure. Once they are deemed

competent they may perform the said procedure with indirect supervision. At no time is a student allowed to perform a procedure without a registered technologist in the immediate area.

- There are certain circumstances in which students will only be allowed to perform examinations under direct supervision due to liability and safety reasons for both the student and the patient. These circumstances are as follows:
  - Mobile examinations
  - Surgical examinations
  - o Invasive procedures
  - o Repeat examinations
  - o Male gonadal examinations
  - o Endocavity examinations

Students may perform any other type of examinations independently if they are deemed as competent; however, they must be accompanied by a registered ARDMS diagnostic medical sonographer at all times.

- All images submitted to the radiologist must be cleared with a registered sonographer before they are submitted throughout the duration of the fifteen-month experience, regardless if they are performed under direct or indirect supervision.
- If a student has a disagreement with a staff member at a clinical facility, with another fellow student, or if a situation of concern arises, the student is to refrain from any actions and notify the sonography faculty immediately. At no time should a student be disrespectful to any individual in the clinical affiliate under any circumstances.
- If a clinical affiliate requests that a specific student not attend that facility for any reason, that request will be put in writing and a copy placed on the student's permanent file. If such a request occurs at one of the clinical affiliates for any reason, that student may jeopardize his/her continuance in the Diagnostic Medical Sonography Program.

#### **GRADUATION REQUIREMENTS**

Upon satisfactory completion of the curriculum and prescribed course of study as outlined for the Diagnostic Medical Sonography Program, a student will be eligible to receive an Advanced Technical Certificate. The student must complete the Spring Semester of the second year in the program to complete the graduation process from the program, STC, and receive a diploma indicating such graduation. The general requirements indicate the student must:

- 1. Satisfactorily complete the course of study for the declared major;
- 2. Maintain a minimum average of "C" in all didactic courses and minimum of "B" in all clinical/practicum courses;
- 3. Complete final semester coursework including CAPSTONE requirements
- 4. Satisfy all program exit requirements;
- 5. Pay all debts to the college prior to graduation;
- 6. Submit an application for graduation to the Office of Admissions and Records twelve (12) weeks prior to the end of the spring semester or 30 days prior to the end of the summer term in which the degree/certificate is to be conferred.

Students are required to participate in the May Commencement Exercises.

#### ARDMS SONOGRAPHY CERTIFICATION

Certification is the initial recognition of an individual who satisfies certain standards within a profession. Employers, state licensing agencies, and federal regulators look at the American Registry

of Diagnostic Medical Sonography (ARDMS) credentials as an indication that a person has met a recognized national standard for sonographic medical imaging.

The ARDMS administers examinations and awards many credentials in numerous specialty areas of ultrasound. The Diagnostic Medical Sonography Program prepares individuals in obtaining the Registered Diagnostic Medical Sonographer (RDMS) credential. Obtaining the RDMS credential requires candidates to pass the Sonography Principles and Instrumentation (SPI) Physics examination and one corresponding specialty examination. The DMS Program prepares students for both the Abdomen (AB) and Obstetrics & Gynecology (OB/GYN) specialty examinations. The SPI examination and the specialty examination may be taken in any order. However, once the first examination is passed (either the SPI or specialty examination), candidates are required to take and pass the second examination within five years of passing the first examination.

#### **Education Requirements for ARDMS Credentialing:**

ARDMS certification may be obtained through 1 of 7 prerequisites. The Diagnostic Medical Sonography Program meets the criteria for Prerequisite 1, which is as follows:

- Education: A single two-year allied health education program that is patient-care related. Allied health occupations include, but are not limited to, diagnostic medical sonographer, radiologic technologist, respiratory therapist occupational therapist, physical therapist and registered nurse.
- Required Clinical Ultrasound/Vascular Experience: 12 months of full-time clinical ultrasound/vascular experience.
- Documentation Required with Application:
  - 1. Official transcript from two-year allied health education program as noted in the "Education" requirement of this prerequisite. Must state specific number of credits and indicate quarter or semester based system. Must include graduation information.
  - 2. Copy of education program certificate, credential or license.
  - 3. Original letter from supervising physician, ARDMS-Registered sonographer/technologist or educational program director indicating a minimum of 12 months of full-time clinic/vascular experience including exact dates of ultrasound experience/successful completion of sonography program.
  - 4. Original signed and completed clinical verification (CV) form for each appropriate specialty area(s).
  - 5. Photocopy of a non-expired government issued photo identification with signature; the name on the identification must exactly match the name under which you are applying for ARDMS examination.

#### **ARDMS Compliance Policies:**

ARDMS Compliance Policies are mandatory standards for all Applicants, Candidates and Registrants/Certificants seeking to obtain and/or to maintain ARDMS certification. Applicants, Candidates and Registrants/Certificants engaging in violations of the Compliance Policies are subject to sanctions in accordance with policies and procedures established by the Board of Directors. The ARDMS Compliance Policies may be found online at <a href="http://www.ardms.org/Compliance/ARDMS Compliance-Policies.pdf">http://www.ardms.org/Compliance/ARDMS Compliance-Policies.pdf</a>

<sup>\*</sup> Candidates will have five years to establish eligibility for ARDMS certification.

#### Violation Reporting Requirements for Applicants, Candidates and Registrants:

ARDMS Applicants, Candidates and Registrants/Certificants are required to report their involvement in any incident that constitutes a violation of ARDMS Compliance Policies within 14 business days of the violation incident.

First-time Applicants must disclose information regarding all previous violations of ARDMS Compliance Policies with their initial application for ARDMS examination(s). All future violations must then be reported to us within 14 business days of the violation incident.

The ARDMS may take action against Applicants, Candidates or Registrants/Certificants found to have violated ARDMS Compliance Policies. Sanctions may include (but are not limited to) reprimand, censure, suspension of eligibility/certification, revocation of eligibility/certification and certification/eligibility probation.

To self-report a violation of ARDMS Compliance Policies, all Applicants, Candidates and Registrants/Certificants are required to submit a written detailed description of the circumstances leading to the violation and additional documentation. Details for self-reporting documentation requirements may be found at

http://www.ardms.org/Discover-ARDMS/compliance/Pages/default.aspx

#### **Pre-Application Review:**

ARDMS will conduct a "pre-application review" for individuals who wish to determine the impact of a previous criminal proceeding on their eligibility to apply for ARDMS certification. Criminal proceedings include, but are not limited to, conviction or pleas of guilty/nolo contendere to any crime or when a finding of guilt is made or returned in a criminal proceeding but the adjudication of guilt is withheld, deferred, not entered, or the sentence is suspended/stayed (including pre-trial diversion programs).

For more information regarding the Pre-Application Review process or start the process, download the ARDMS Pre-Application Request Form at <a href="http://www.ardms.org/Compliance/Pre-application\_Criminal.pdf">http://www.ardms.org/Compliance/Pre-application\_Criminal.pdf</a>

The Pre-Application Review Process is recommended for individuals who are not yet ready to apply for an examination. Individuals who have already completed a program and are ready to apply should simply respond to the questions on the ARDMS examination application relating to violation matters and provide the requested documentation.

#### Active Criminal Cases/Disciplinary Sanctions:

First-Time Applicants: All criminal case/disciplinary sanction violation matters must be closed prior to application. This means that all conditions of sentencing/sanction must be completed (including all probation and fines) and that the case has been completely closed or the disciplinary sanction has been lifted in order for the Applicant to proceed with the certification process. Ineligible applications will be withdrawn and a refund will be processed, minus the \$100 USD mandatory Application Processing Fee and \$150 USD non-refundable Compliance Review Fee.

#### GENERAL STUDENT STANDARDS

#### **GRADE REQUIREMENTS**

Students who participate in any program within the Radiologic Technology Department must adhere to the following grade requirements for all didactic and clinical/practicum courses for each respective program. This grading scale applies to all program specific courses (e.g., all courses with the four letter course codes that represent each respective program, such as RADR or DMSO). This grading scale does not apply to STC general education courses that may be included in the program curriculum.

- **Didactic Courses:** All program specific didactic courses must be completed with a letter grade of a "C" or above for successful completion. Students who receive below a "C" in **ANY** didactic course will be ineligible to continue to the next level in the program.
- Clinical and Practicum Courses: All program specific clinical and/or practicum courses must be completed with a letter grade of a "B" or above for successful completion. Students who receive below a "B" in ANY clinical and/or practicum course will be ineligible to continue to the next level in the program.

Grades are recorded in decimal format. The Radiologic Technology Department does not round up decimal points to the next highest whole number (e.g., a 79.9% will not be rounded up to an 80.0%).

#### **EXAMINATIONS, QUIZZES AND ASSIGNMENTS**

#### **Chapter Examinations**

Chapter examinations must be taken at the time they are scheduled; there will be no make-up of examinations unless an extenuating circumstance should arise. Extenuating circumstances will be considered by the course instructor, discussed with the student, and arrangements will be made by the course instructor if deemed appropriate. Chapter examinations will not be returned to the student.

#### **Final Examinations**

It is mandatory that each student is present during the designated time and date that is scheduled for final examinations. There is no make-up for any final examination. If a student fails to arrive for an examination at the designated date and time, he/she will automatically receive a zero (0). Students will not be allowed to review the final examination.

#### **Examination Procedure**

Examinations may be given by paper, scantron and/or computerized. Students will not be allowed to have any personal belongings with them during testing; all personal belongings must be stored in the area designated by the course instructor. Cell phone possession is prohibited during testing hours. Students found with cell phones in their pockets or anywhere on their person during testing, regardless if the phone is turned on or off, will be immediately dismissed and given a zero (0) for that examination, no exceptions. Students are permitted to wear a sweater or jacket during testing hours, if desired. Students will be provided with scratch paper at the onset of each examination, which must be returned to the instructor. After completion of each examination, students may be allowed to view their exams and/or scores at the discretion of the course instructor.

Mandatory requirements during testing are as follows:

- Students are not permitted to view anyone else's examination, scantron, scratch paper or computer monitor. Your eyes must stay focused on your examination only.
- Talking is not allowed at all during testing; do not ask the instructor for clarification on questions. If you have any questions in regards to the examination, you may ask the course instructor after everyone has finished testing. If assistance is needed from the course instructor for any other reason, raise your hand.
- For computerized examinations, students are NOT allowed to open any additional websites or resources on the computer during testing hours, unless stipulated by the course instructor. This includes after you have submitted your examination.
- Raise your hand when you have completed and submitted your examination. The instructor will go to your station and pick up your scratch paper. Students are not allowed to take notes when viewing their submitted examinations/scores.
- For computerized examinations, minimize the size of your computer screen when viewing your submitted examination so that it will not be visible to others.
- In the event that you complete your examination prior to the end of the given time frame, report to the designated area indicated by the course instructor.

Any form of academic dishonesty will result in a zero (0) for that examination. Students will also be subject to the Disciplinary Action, which may result in dismissal from the course and/or expulsion from the program/division/college.

#### **Examination Remediation**

In order for students to have a successful course experience it is imperative that they master the course material through testing. As such, students are expected to achieve a passing grade on all examinations. If a student should fail an examination throughout the duration of any core radiology course, he/she will be required to meet with a NAHC Student Success Specialist. The student will be responsible for scheduling an appointment immediately after the examination and submitting a Faculty Notification Post Referral to the course instructor/s. The Student Success Specialist will work with the student in identifying the barriers that are keeping them from being successful and develop strategies for improvement. It will be the responsibility of the student to provide the required documentation to the instructor that they have met with the Student Success Specialist indicating their readiness to sit for the next course examination. Students may schedule an appointment online at nah.southtexascollege.edu.

#### **Quizzes**

Quizzes may be electronic and/or paper and may or may not be announced by the instructor. Quizzes may be online or taken in the classroom on an individual and/or group basis. Students who are absent for class and not present for the discussion of content that will be included in a group quiz will be required to take that quiz independently. Quizzes must be taken at the dates and times they are scheduled; there will be no make-up of quizzes in the program unless an extenuating circumstance should arise. Extenuating circumstances will be considered by the course instructor, discussed with the student, and arrangements will be made by the course instructor if deemed appropriate.

#### **Assignments**

Time management and organizational skills will be enforced throughout the curriculum. All assignments are to be completed and turned in on the assigned due date, at the beginning of the class period or as designated by the course instructor. Any late assignments will be reduced by one letter grade per day late unless an extenuating circumstance should arise. Extenuating circumstances will be considered by the faculty member and discussed with the student. As each assignment is designed towards students meeting specific professional competencies, it is the student's responsibility to submit all required assignments. This applies to both clinical and didactic courses.

#### **Student Evaluation**

Evaluation of student performance will take place in both classroom and clinical settings. Various evaluation approaches will be employed in the classroom including, but not limited to, written examinations, practical examinations, class participation activities and reports, both oral and written. The evaluation process can be announced or unannounced as per the instructor of the specific course. Various evaluation tools, methods and grade sheets used within the program are included in the individual course syllabi.

All students have the opportunity to review examination, quiz and/or assignment grades with the course instructor as the semester progresses. Instructors will review the examination, quiz and/or assignment with the student and make corrections if applicable or appropriate at the instructor's discretion.

At the end of each semester all final grades on examinations, quizzes and/or assignments will not be changed. It is the student's responsibility to make an appointment with the instructor to discuss grades prior to the end of the semester. Examinations, quizzes and/or assignments will not be reviewed after the end of the semester to elevate a student's course grade in the event that the student is failing.

#### **DISCIPLINARY ACTION**

Professional behavior is essential during all phases of each respective program in the Radiologic Technology Department. As such, students are responsible for familiarizing themselves with each of the standards in this handbook as well as the Division of Nursing & Allied Health Student Handbook. Failure to follow respective professional specific standards will result in a disciplinary action. The **minimal sanction** may include a written warning or reprimand. The **maximum sanction** may result in course failure, suspension, and dismissal from the course and/or expulsion from the program/division/college. The sanctions taken **will be dependent on the nature and severity of the incident** and potential or real threat to client safety and well-being or risk for the Program, the College, and/or the clinical affiliate agency.

#### **EMAIL**

Use of email is the official communication tool for Nursing & Allied Health students. Students are required to have active college email (JagMail) accounts as this will be the primary source of communication. Students are expected to check their JagMail daily or at least several times per week for important announcements or requests from the Dean, Program Chair, course instructors, or additional college personnel.

**Email Etiquette:** Students are responsible for using proper etiquette when sending emails. Proper etiquette includes, but is not limited to:

- **Be clear in your subject line:** Always fill in the subject field with a brief and concise description of the content of your email. Do not leave the subject line blank. This is very important in helping the recipient identify the topic and purpose of your email.
- Begin and end emails properly. Begin your email by typing the proper name of the person you are addressing and end the email by typing your name. Many times an email address does not correspond to the sender's name; therefore it is important to sign your email by stating your first and last name.
- **Do not write in all CAPITALS:** Writing in all capitals can convey that you are shouting in your message. Consider other ways to get your message across while conveying its importance. Using all capitals can be annoying and trigger an unintended response.
- **Do not use shortcuts to real words or slang:** Do not use shortcuts for words that may be used in text messages, such as "4 u" (instead of "for you") or "Gr8" (for great) in college related emails. Spell out words in their entirety and refrain from using slang language. The use of either has the potential to make you appear unprofessional.
- Write in proper English and use correct punctuation and grammar: Capitalize the first word of the sentences and separate each paragraph appropriately. Use the spell check and proofread your emails prior to sending. Writing an email is no different than writing a college or business document. Students are expected to use proper English and follow appropriate grammar and punctuation rules.
- **Keep the email short and to the point:** Write concisely, so as to not overwhelm the recipient. The person reading your email should not have to read through several paragraphs in efforts to understand the significance of your message. You should state the purpose of the email within the first two sentences. Be clear, and be up front.
- Remember that your email is a reflection of you: Every email that you send adds to, or detracts from your reputation. If your email is scattered, disorganized, and filled with mistakes, this may have an effect of the reader's perception of you. Remember that you are a member of the health care profession, so attention to detail and maintaining high standards of professionalism is a must.

#### **CELL PHONES AND ELECTRONIC DEVICES**

#### **Didactic Courses**

Students are expected to respect the learning environment of the classroom. As such, texting, emailing, use of any means of social media, and/or talking on cell phones is not permitted in the classroom at any time, including breaks. Cell phones must be turned off prior to class and put away where they are not visible. Individual requests for exceptions to this standard will be handled on an individual basis, but will not be automatically granted. Cell phone usage for course related activities will only be permitted at the discretion of the course instructor.

The use of personal computers or electronic tablets/e-readers in the classroom is permitted at the instructor's discretion. Use of such media is restricted to course related content/sites. Students are permitted to utilize electronic textbooks and learning resources. Individual course instructors reserve the right to monitor computer activity at any time during classroom sessions.

Approval from individual course instructors is required prior to use of Smartpens during any classroom activity.

#### **Clinical and Practicum Courses**

Students are not permitted to have cell phones and/or electronic devices in the building of a clinical site at any time. Students who choose to take their cell phones/electronic devices with them to clinic will be responsible for storing the item/s outside of the building of the medical facility. STC and/or the clinical affiliate will not be responsible for damaged or stolen property so it is advised to leave these items at home during scheduled clinical hours.

If a student is found to have a cell phone/electronic device in a clinical facility at any time, he/she will be immediately dismissed from the clinical site and receive an absence for the day.

#### **EMERGENCY MESSAGES**

If a student needs to be reached due to an emergency during program hours, a message may be left with the program secretary, Angie Reyes, at (956) 872-3049. Mrs. Reyes will locate the course instructor immediately so that the student will be notified of the emergency. If students are aware of a possible emergent situation, it is recommended to discuss the situation with the course instructor in advance so that arrangements may be made.

In the event of a program emergency, it is the student's responsibility to maintain accurate phone numbers, addresses, and email addresses with the Program Chair so that the radiology faculty will have your most current contact information.

#### **ATTENDANCE**

Classroom attendance is expected of all students and students are expected to be present for each entire class/lab and clinical session.

#### **Didactic Courses**

All didactic courses require 90% attendance for successful completion. Absences that extend beyond the allowed 10% will result in the student being dropped from the class. Extenuating circumstances will be dealt with on an individual basis and will be at the discretion of the course instructor. Absences will be issued for:

- Missing a full day of class/lab
- An accumulation of three (3) tardies
- Tardiness of 15 minutes after the scheduled arrival time and/or returning from lunch or a break 15 minutes late
- Leaving prior to the scheduled class/lab departure time at any time

Attendance is defined as physically being in class and awake at all times. A student who falls asleep in class will be asked to leave and will be counted as absent for that class period. This standard very much applies to video sessions.

Attendance includes being prepared for all didactic courses. Students are supplied a syllabus on the first week of class, which outlines course attendance requirements and necessary supplies. If a student fails to be prepared for class (e.g., books, calculators, lab manuals, etc.), the student will be dismissed until all missing items have been retrieved. The dismissal will result in a documented absence for the day. Students will be responsible for any information resulting from the absence.

Students are responsible for setting their watch and/or timepiece according to the clock used in the respective classroom or as instructed by the course instructor. Course instructors will not make exceptions for students who set their watches and/or timepieces at an alternate time.

#### **Clinical and Practicum Courses**

Students will be allowed a specific number of absences in each clinical and practicum course according to the total number of contact hours that are required; however, students will be required to make up all time that is missed. Extenuating circumstances will be dealt with on an individual basis and will be at the discretion of the course instructor. Absences will be issued for:

- Missing a full day of clinic
- An accumulation of three (3) tardies
- Tardiness of 15 minutes after the scheduled arrival time and/or returning from lunch or a break 15 minutes late
- Leaving the clinical site for any reason during assigned hours

The Attendance Standard for all clinical and practicum courses includes the following:

- Students are required to make up all absences. The dates, time, and duration of the make-up hours will be at the discretion of the course instructor. Absences must be made up in order to pass each course.
- Students exceeding the allowed number of absences will lose five (5) points from their final average grade for every absence above the allowed number for the semester.
- Students calling in absent for a clinical session are required to call-off with the clinical affiliate as well as with the radiology faculty. Students are required to place the call to the radiology faculty 30 minutes prior to scheduled clinical arrival time and relay the clinical site contact information.
- If an emergency situation arises that requires the student to leave the site before the assigned departure time, the student must either speak directly or leave a detailed voicemail with the course instructor/s before leaving the clinical site. The department supervisor and/or supervising technologist must also be notified.
- Students will also be given breaks during class, simulation sessions and clinical shifts that exceed 8 hours. Students are expected to return from each break on time. Students who return from a break 15 minutes late will be marked as absent for the day.
- Attendance includes being prepared for all didactic courses. Students are supplied a syllabus on the first week of class, which outlines course attendance requirements and necessary supplies. If a student fails to be prepared for class (e.g., books, calculators, lab manuals, etc.), the student will be dismissed until all missing items have been retrieved. This will result in a documented absence for the day.
- Students will be responsible for any information missed caused by an absence.

#### **PUNCTUALITY/TARDINESS**

Punctuality is of utmost importance both in the classroom and in the clinical setting. All program courses begin at a specific time and students are expected to be present at the onset of each class. A student is deemed tardy if he/she arrives past the class, lab or clinic start time to include the beginning of the scheduled time, after lunch or after a break.

Students are responsible for setting their watch and/or timepiece according to the clock used in the respective classroom/clinical setting or as instructed by the course instructor. Course instructors will not make exceptions for students who set their watches and/or timepieces at an alternate time.

- A student will be deemed as tardy if he/she arrives less than 15 minutes late from the scheduled arrival time and/or return from lunch or a break.
- An accumulation of three (3) tardies constitutes one (1) absence.
- Students must be physically present in the classroom or clinical setting at the designated arrival time or return from lunch/break or they will be marked as tardy.
- Students will be responsible for any information missed caused by tardiness.

#### PROGRAM READMISSION

Students who have withdrawn or failed a course within a program may petition for readmission, depending on the individual circumstance. The readmission standard is as follows:

- Students may request readmission into a program only once.
- Readmission is dependent upon availability of class openings.
- Failure of more than one course in any given semester will result in ineligibility for readmission.
- Failure of a clinical or practicum in any given semester will result in ineligibility for readmission.
- Students will be denied readmission if their withdrawal or dismissal from a course was for non-academic failure (i.e. unsafe practice, academic dishonesty, and/or unethical behavior, etc.).
- Students must re-enter the program within one year to insure continuity of learning and mastery of required content. The Program Progressions Committee will determine readmission of students not returning within one year on a case-by-case basis due to extenuating circumstances. The program reserves the right to require a re-entering student to initiate program sequence beginning with the first semester and/or repeat selected program courses previously completed successfully. The Progressions Committee will determine on a case-by-case basis the best course of study to facilitate student success.
- Students petitioning for readmission must schedule an appointment with the Program Chair and will be responsible for submitting any requested documentation by a designated time frame. The student will be required to meet with the Program Chair and the Progressions Committee in evaluation of the case.
- Students who are granted readmission are required to meet with the Program Chair and sign a contract that will include the conditions of readmission. Should a student neglect to comply with the stipulations of the contract, he or she will forfeit entrance and/or continuance into the program and will be ineligible to reapply.
- Students who are not granted readmission may petition this decision as stipulated in the Division of Nursing & Allied Health Student Handbook.

#### **CLASSROOM MANAGEMENT**

Students are expected to adhere to each of the following classroom management standards when interacting with others during class, lab or simulation sessions:

- **Respectful Classroom Behavior:** Students are expected to exhibit respectful behavior in the classroom at all times. This includes respectful dialogue and conversation during classroom discussions. Examples of respectful behavior includes, but is not limited to:
  - Using a respectful tone of voice when speaking to the instructor and/or other members of the class
  - o Following instructions from your instructor quickly and without complaint
  - o No teasing others or name calling
  - Use of appropriate language at all times
  - o Being attentive to your instructor and fellow classmates when they are speaking
  - Speaking one at a time
  - o Respecting the opinions of others, even if you do not agree
  - o Ending class discussions when instructed to do so by the course instructor

The classroom must be kept neat after each class session and students are responsible for picking up after themselves, which includes the use of the classroom lab. Students are to be

respectful of the classroom furniture and take care of it at all times; at no time are students permitted to sit on the tables, put their feet up on desks and/or chairs, etc.

- **Definition of Classroom Disruption:** Classroom disruption is defined as behavior a reasonable person would view as likely, substantially, or repeatedly interfering with educational activities. Examples of classroom disruption includes, but is not limited to:
  - o Constantly interrupting others
  - o Repeated entering or leaving class
  - o Making loud and/or disruptive noises
  - o Swearing or use of inappropriate language
  - Using physical or verbal threats
  - o Persistently speaking without being recognized
  - o Having private conversations with others when the instructor or others are speaking
- Food and Drinks in the Classroom: Students are allowed to have beverages in the classroom during class sessions. Eating/snacking during class sessions is disruptive to others and is not permitted at any time. Eating in the classroom during lunch breaks will be at the discretion of the course instructor.

Violations of any of any of the classroom management standards or additional disruptive behavior will result in dismissal from class and a documented absence for the day.

#### STUDENT EMPLOYMENT

The Radiologic Technology Department recognizes that students may work while completing their course work. Students must realize that this may take away from valuable study time and may have a detrimental effect on academic and clinical performance.

Students who are employed in an assigned clinical site must notify the course instructor and program chair to determine if there is a conflict of interest. Each case will be evaluated on an individual basis. Students may be re-assigned to an alternate clinical site if deemed appropriate by the radiology faculty.

#### STUDENT ORGANIZATIONS

Students in the Radiologic Technology Program and the Diagnostic Medical Sonography Program are required to participate and be active members of a student organization. The goal of the organization is to promote networking and personal growth opportunities, encourage involvement within the community, and encourage students to become active participant members of society.

The Radiologic Technology Department Chair or a designee will serve as the faculty sponsor for the student organization. In consultation with faculty sponsors, elected officers lead the organization in service activities, fund raising events, social events to benefit collaborative efforts among students, and other activities deemed appropriate by the organization.

Student Club Officers are selected to act as spokespersons for the students' respective classes. Club Officers are also responsible for maintaining communication between the students and program faculty and/or staff. Selection of Student Club Officers will be by majority vote. If an officer is unable to complete their term, an election will be held for a replacement to serve the remaining portion of the term.

Student Club Officers are nominated and elected by their fellow class members for the following positions:

- **President:** Preside over meetings, lead programming, plan strategy and set goals, select committees and make special appointments. Act as a liaison between radiology faculty or staff members, class, and if indicated, the community.
- **Vice President:** Support the president, support officers, oversee committees.
- **Secretary:** Take club meeting minutes, maintain records, keep club materials organized, answer club correspondence, and send thank-you notes.
- **Treasurer:** Control the collection and disbursement of club's money, coordinate with program secretary, STC cashier and/or the business office.
- **2 Historians:** Take pictures throughout the year to record class activities, meetings and events. Create media releases for club activities and service projects.

Fundraising activities are determined and organized by the student organization and require college approval by the STC Student Activities Department. Funds generated by the organization are typically used for registry fees, seminar participation fees, pinning ceremony fees, etc. The faculty sponsor and/or Program Chair must approve **all** activities and expenditures. Funds may also be used for other student related activities or expenses as the organization deems fit and is determined via majority vote.

#### BEHAVIOR EXPECTATIONS DURING OFF-CAMPUS EVENTS

Students accepted into a program may participate in off-campus activities for fundraisers and other events. All off-campus activity locations are to be considered extensions of the South Texas College NAH campus. As such, students are expected to adhere to Radiologic Technology Department and NAH Division standards in order to ensure a safe environment. Expectations include appropriate attire and demeanor, punctuality, active participation, and adherence to safety standards with respect to care of self and care of environment. Additionally, students are expected to abide by all rules and regulations of the off-campus site. If patients are involved, students will respect the privacy and confidentiality of all health information as per federal law requirements (HIPAA).

# **CLINICAL AND PRACTICUM STANDARDS**

# **CLINICAL REQUIREMENTS**

Students enrolled in any program in the Radiologic Technology Department must meet the Clinical Requirements established by the Division of Nursing and Allied Health Student Handbook in order to be enrolled in any clinical or practicum course. Students are also required to remain current on all requirements throughout the clinical education segment of the program. Noncompliance in any requirement will result in the inability to attend and/or continue participation in that clinical or practicum course.

#### **CLINICAL SITE AND TRAVEL EXPECTATIONS**

Students involved in clinical education are required to provide their own transportation to and from assigned clinic sites during all clinical/practicum experiences. Current clinic sites range from Mission, Texas to Weslaco, Texas and include acute care/hospital facilities and ambulatory care/outpatient facilities.

Not all contracted facilities participate in every clinical/practicum course. Student placement is dependent on the facility's ability to accommodate a student as well as meet the identified clinical objectives for that course. Many of the clinical facilities are within reasonable driving distance from the Nursing and Allied Health Campus.

South Texas College and the Radiologic Technology Department do not provide housing and/or transportation to individual clinic sites.

#### ATTENDANCE ROSTER PROCEDURE

An attendance roster will be maintained at each clinical affiliate. Students are required to log their name and arrival time in the attendance roster. Students are required to sign in when they arrive at the clinical/practicum site and sign out at the scheduled departure time. Students are also required to sign in and out when they take their lunch break. The attendance roster is deemed a legal document. As such, the following guidelines must be strictly adhered to:

- Students are only allowed to make entries under their own names. Students are not permitted to document information for another student at any time to include their name and/or time.
- Students must sign themselves in and out using accurate times. Students are not permitted to log in or out at a fictitious or inaccurate time.
- Students are only permitted to document entries at the actual time of each occurrence. Students are not permitted to document more than one entry at a time (e.g., arriving at the clinical site at 8:00 a.m. and entering the time of arrival at 8:00 a.m. and the anticipated time of departure for lunch at 12:00 p.m.).
- Each entry must be verified and initialed by a member of the staff at the clinical affiliate at the time of each entry. It is the students' responsibility to locate a member of the staff for verification each time they sign in and/or out.
- Should a student neglect to sign themselves in or out, or have a staff member verify an entry, the course instructor has the authority to mark the student as tardy or absent for the day depending on the circumstance.
- If a correction is to be made to an attendance roster, a single line must be placed through the altered information, and initialed by the student who has made this alteration. Any information on the attendance roster should not be deemed as having been altered or covered up in any manner.

Any deviation from the Attendance Roster Procedure, dishonest and/or altered documentation may be regarded as falsification of records, which will be treated as a severe violation of professional student conduct.

#### MERITS AND DEMERITS

Merits will be issued in efforts to motivate students to emulate the role of a health care professional and adhere to the department student handbook throughout the educational experience. A system of demerits is also employed to penalize behavior that is inconsistent with professional student conduct.

#### Merits

- Points will be issued to students who demonstrate exemplary performance of duty and/or outstanding achievement in the clinical site.
- Merits will range from 1 to 5 points per semester.
- Merits will not exceed a total of 5 points per semester.

#### **Demerits**

- Failure to follow any requirement of a course syllabus and/or student handbook may result in a student being issued demerits.
- Demerits will range from 1 to 6 points; the number of demerits assessed will be based on the nature and/or frequency of the infraction.
- Demerits are cumulative throughout the duration of the program. Students are expected to remain below the following department standards:
  - o Maximum demerits per semester:
  - o Maximum cumulative demerits: 20

#### **CLINICAL BREAKS**

Students may be issued one or more breaks throughout each day of clinical training, depending on the duration of scheduled shift. The standard for clinical breaks include:

- Students attending clinical/practicum sessions are required to remain at the site for the duration of the assigned shift to include breaks. Students are not permitted to leave the clinical site for any reason.
- Lunch breaks must be taken at the clinical site either in the cafeteria, break room or other designated eating area where the student is assigned.
- Students are not permitted to leave the clinical site for lunch or other matters during assigned clinical hours.
- Students are to take their lunch breaks during the time frames stipulated by the course instructor. If the student waits too long and misses their lunch break, they may **NOT** leave early to make up for the lunch break. They will be required to stay until the scheduled designated time.
- Students are only allowed to take morning and/or afternoon breaks if permitted by the course instructor.
- Students must obtain permission from the supervisor or a supervising technologist before taking a break.
- Students in each facility must alternate their lunch breaks so that at least one student will always be present in the department, unless otherwise instructed.

#### **JCAHO**

In the event that a clinical affiliate receives a scheduled visit from the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO) during clinical/practicum assignments and the affiliate request that all radiology students be removed from the site during this time, those students scheduled at that facility will be re-assigned to another facility until they are allowed to return to their assigned clinical/practicum site.

### **CLINICAL COMPETENCY EVALUATIONS**

Students are required to attempt and pass a number of clinical competencies each semester. The radiology faculty will evaluate all clinical competencies and will determine if the student demonstrates mastery of each radiologic procedure. Each procedure must be covered in class before attempting to pass the competency and must be approved by the course instructor.

All clinical competencies performed by a student must be completed and signed by the supervising technologist before the end of the clinical shift on that day. If the supervising technologist fails to either complete or sign the competency by this time, the competency will not be graded and the student will have to perform another competency in its place. The clinical competency may only be signed by the technologist that supervised the student during the said procedure or the competency will not be accepted.

Each student is responsible for completing the number of clinical competencies assigned for each semester, including those due mid-semester, if applicable. Students will be notified of the deadlines for competencies at the onset of each semester.

Simulated competencies must be completed on or prior to the scheduled deadlines. Radiology faculty will notify the students of deadlines for simulations each semester. It is the student's responsibility to obtain all necessary simulations prior to this time.

## STUDENT SIMULATION SESSIONS

Students will be attending student simulation sessions throughout the duration of the Radiologic Technology and Diagnostic Medical Sonography Programs. Student simulation sessions will be scheduled as deemed by the course instructor and may be held at any time during clinical/practicum hours. Students may also be released from clinic/practicum sessions if deemed necessary by the radiology faculty.

The purpose of the student simulation sessions are for the students to practice positioning examinations, review anatomical structures, and/or practice on anything related to diagnostic procedures in effort to improve clinical skills. These sessions may be instructor or student guided and all students are expected to work in a cohesive manner in order to strengthen skills and the knowledge base necessary to progress successfully in the program.

Students may choose to develop a schedule of events or designate a leader to organize sessions that are not pre-planned in order to maximize learning. This is the time for the students to work as a team to help each other work through problem areas.

- Student simulation sessions are considered to be part of the clinical and practicum curriculum.
- Students are not permitted to miss a simulation session or leave early for any reason without being marked as absent for the day.
- Students are expected to be at the simulation site in a punctual manner, in uniform, and bring all items that would be taken to the clinical site. If a student forgets any of these items,

- or is in violation of the proper dress code, he/she will be dismissed from the simulation session and marked as absent for the day.
- During simulation sessions, all students are expected to participate in classroom interaction.
- Students are expected to remain busy for the duration of the simulation session and remain focused in the current subject area. If any students are found to be loafing during this time or working on any other subject material, they will be asked to leave and will be marked absent for the day.
- All examinations performed in the simulation room are to be performed as learned in the program and in the proper manner.
- Examination protocols will vary with each clinical affiliate. As such, each student is expected to perform each examination as designated by the course instructor.
- When performing examinations/simulations, the student will be graded for demonstrating skills as taught by the instructor, not by hospital protocol.

#### **RADIATION SAFETY**

Ionizing radiation is capable of producing biological effects within the human body. It is assumed that any radiation dose, no matter how small, could produce some effect. The protection of the health and welfare of each member of the faculty, staff, student body and general public is of primary importance to South Texas College. Rules and procedures promulgated for use within the STC Radiologic Technology Department shall comply with the regulations and requirements for the federal and state agencies that license and regulate radiation sources and uses.

Although the use of radiation sources is governed by complex regulations and license conditions, the knowledge and performance required of individual radiation users is readily comprehended and accomplished. It is the responsibility of each individual who works with sources of ionizing radiation to know and follow the policies and procedures promulgated by the Radiologic Technology Department Radiation Safety Committee and administered by the Radiation Safety Officer.

### **Radiation Safety Committee**

- The Radiation Safety Committee has the responsibility for the safe use of ionizing radiation, for educational purposes only, by South Texas College personnel. Membership on the committee is composed of all radiology program personnel, Radiation Safety Officer, Nursing & Allied Health Division Dean, Director of Operations and Maintenance and a radiation physicist.
- The Radiation Safety Committee develops guidelines and procedures that are to be followed by all radiation users. The purpose of these guidelines is to provide guidance on the special requirements for the program x-ray units that are to be used solely for educational purposes.

## Radiation Safety Officer (RSO)

The RSO is responsible for the safe operation of the x-ray equipment located at South Texas College, The Ramiro R. Casso Nursing & Allied Health Campus (NAHC), 1101 East Vermont Avenue, McAllen, TX 78503. Responsibilities include the following:

- Ensure that all x-ray equipment is registered with the Texas Department of State Health Services, Bureau of Radiation Control.
- Ensure that all personnel operating the x-ray unit have completed radiation safety training. This includes instruction in safe operating procedures. Students in the Radiologic Technology Program are given radiation safety training the first semester by fully qualified, ARRT registered radiographers.

- Ensure that written safety rules, to include those contained in this handbook, are provided to all personnel who operate the equipment.
- Ensure that all personnel who operate the equipment wear the appropriate radiation monitoring devices.
- Ensure that the RSO is notified of any changes in the equipment, facility or personnel operating the equipment.
- Ensure that faculty is credentialed to operate x-ray equipment.

### **Radiation Safety Training**

All faculty and students who work with x-ray equipment must complete radiation safety training. All faculty have graduated from approved programs in Radiologic Technology. Faculty also review current radiation policies and procedures prior to the start of each semester.

Students are given radiation safety training the first semester they are enrolled in the Radiologic Technology Program. Students learn about radiation safety in each of their didactic courses within the program. Students also have instruction on dosimetry during the first several weeks of training. Whole body dosimeters are provided to each student, dosimetry reports are reviewed with the students and students are required to sign each report for verification purposes.

## Responsibilities of Radiation Workers

Those who work with x-ray producing devices, both faculty and students, are responsible for:

- Following safe operating procedures for the use of x-ray equipment.
- Observing the rules/guidelines presented for the safe use of x-ray equipment.
- Notifying the RSO of any defects or deficiencies in x-ray equipment, procedures or facilities.

## **ALARA Principle**

The Radiologic Technology Department is committed to an effective radiation protection program to eliminate unnecessary exposures to radiation and to reduce all exposures to levels that are as low as reasonably achievable (ALARA). Although occupational radiation doses in the Radiologic Technology Department are very low and current occupational limits provide a very low risk of injury, the ALARA principle is used at all times for sound radiation safety planning, practice and commitment to protecting personnel.

### **Personnel Radiation Dosimeters**

All radiology personnel who have the potential of receiving greater than 10% of the maximum occupational dose limit must wear a personnel radiation dosimeter. The purpose of the dosimeter is to measure the amount of radiation exposure that is received by an individual. Both faculty and students are required to wear radiation dosimeters.

- Students exposed to ionizing radiation are required to wear radiation dosimeters at all times in the clinical education setting and classroom throughout the educational experience. The radiology faculty supervises the ordering, distribution and collection of the personnel monitoring devices on a monthly basis.
- Whole-body radiation dosimeters must be worn at the collar level. Declared pregnant radiation workers may be asked to wear an additional "fetal" radiation monitoring device, which will be worn on the waist. When a lead apron or thyroid shield is worn, the monitoring device must be worn on the outside of the protective device on the collar. The radiation dosimeters are to be worn during program hours only and are not to be worn during non-occupational exposures such as medical or dental x-ray procedures.

• When not in use, radiation dosimeters must be stored in an area where they will not be exposed to ionizing radiation above background levels. Radiation dosimeters must not be deliberately exposed to radiation or mishandled in any way.

## **TDSHS** Inspections

All licensed radiology activities are subject to inspection by the Texas Department of State Health Services (TDSHS), Bureau of Radiation Control. Inspections may be announced or unannounced and will be conducted as deemed necessary by the TDSHS.

### **Radiation Emergency Contact Information**

Radiation Safety Officer: Crystal Bird

Office: (956) 872-3101 Cell: (956)739-6676

STC Director of Operations: George McCaleb

Office: (956) 872-2556

Emergency telephone numbers should be available to everyone who works in the x-ray labs posted outside the labs.

#### **Posting Requirements**

Each lab area where fixed diagnostic x-ray devices are located will be conspicuously posted with:

- 1. A sign bearing the radiation symbol and the words or similar words:
  - "CAUTION: X-RAY EQUIPMENT"
- 2. Emergency phone numbers
- 3. A sign with the following words or similar words: "Caution: If you are pregnant or think you are pregnant, please inform the technologist before x-rays are taken" must be conspicuously posted outside of the lab area.

#### Classroom Radiographic Equipment Usage

The following rules are intended to protect operators from exposure to ionizing radiation.

- Stationary Units:
  - The workers must stand behind the protective barrier at the controls during all exposures.
  - Access to the x-ray room should be secured during all exposures.
- The control panel must contain the following legible and accessible warning statements:
  - o "CAUTION: this equipment produces radiation when energized, and is to be operated only by qualified personnel"
  - o <u>Diagnostic Units Only:</u> "WARNING": This x-ray unit may be dangerous to patient and operator unless safe exposure factors and operating conditions are observed"

# **Equal Opportunity Statements**

## **Developmental Studies Policy Statement**

The College's Developmental Education Plan requires TSI Liable students who have not met the college readiness or exemption standards in reading, writing, and/or mathematics to enroll in Developmental Studies courses including College Success. Failure to attend these required classes may result in the student's withdrawal from ALL college courses.

# **Equal Education and Equal Employment Opportunity**

South Texas College is an equal education and equal employment opportunity/affirmative action employer. As an equal opportunity employer, the College does not discriminate on the basis of race, color, national origin, religion, age, sex, sexual orientation, gender, gender identity, disability, genetic information, or veteran status. Discrimination is prohibited and the College will comply with all applicable College policies, and state and federal legislation. This policy extends to individuals seeking employment with and admission to the College.

### **Title IX Statement**

Title IX of the Education Amendments of 1972 protects individuals from discrimination based on sex in any educational program or activity operated by recipients of federal financial assistance. Sexual harassment, which includes acts of sexual violence, is a form of sex discrimination prohibited by Title IX. More information on Title IX policy and procedures can be found at <a href="http://www.southtexascollege.edu/about/notices/title-ix.html">http://www.southtexascollege.edu/about/notices/title-ix.html</a>. Questions regarding Title IX or concerns about accommodations, including complaints of sexual harassment, sexual assault, sexual violence, or other sexual misconduct should be directed to our Conflict Resolution Center at (956) 872-2180 or <a href="mailto:creation-recommodations">cre@southtexascollege.edu</a>.

# **Pregnant and Parenting Students**

South Texas College does not discriminate against any student on the basis of pregnancy, parenting or related conditions. Pregnant or parenting students seeking accommodations should contact the Conflict Resolution Center immediately at (956) 872-2180 or <a href="mailto:cre@southtexascollege.edu">cre@southtexascollege.edu</a>.

#### **ADA Statement**

Individuals with disabilities requiring assistance or access to receive services should contact disABILITY Support Services at (956) 872-2173.

## **Veterans Statement**

The STC Office of Veterans Affairs provides support services to our military veterans and their dependents, and assists them in applying for and obtaining their educational benefits. Contact the Office of Veterans Affairs (Bldg. K2.602, K2.604) at (956) 872-6723 for questions or to set an appointment.

# **Student Agreements**

## **Code of Practice Agreement**

I understand that the Radiologic Technology Department at South Texas College employs a variety of hands-on practice of diagnostic positions, both in the clinical affiliates and in the lab. Students will be required to practice positioning skills on one another and on faculty at various times throughout the duration of each respective program. I understand that the practice of positioning is inherent in the Radiologic Technology Department and is part of the learning experience.

#### **Professional Standards Agreement**

A student entering the profession of diagnostic imaging must understand that they are entering a field of medicine that requires certain professional standards that other career choices may not. Professional dress, appearance, and modes of communication and conduct must be of certain standards in order to maintain the confidence and care of the patient. Patients under the care of a technologist present themselves in all ages, cultures, and of various ethnic origins; therefore trendy modes of dress and appearance are not allowed. The Radiologic Technology Department has an established dress code, code of conduct, and program professional boundaries that must be followed throughout the duration of each program.

# **Radiation Safety Agreement**

A student entering the profession of radiologic technology must understand that they are responsible for radiation safety in all areas of the program. Students are responsible not only to themselves but the general public, patients, hospital personnel, and program faculty. It is required of all students that they keep their radiation dose low, protect the patient, public, and program faculty from unnecessary radiation and follow the Bureau of Radiation Safety guidelines by adhering to ALARA principles. Intentional and unnecessary exposure of the general public, patients, hospital personnel, and/or program faculty may result in dismissal from a course and/or expulsion from the respective program.

# **Appendices**

### APPENDIX A

# RADIOLOGIC TECHNOLOGY

# 2016-2017 Associate of Applied Science Degree Plan

TSI LIABLE

PREREQUISITE TERM Credit Hours						
RADR	1309	Introduction to Radiography & Patient Care	3			
<b>BIOL</b>	<u>2401</u>	Anatomy & Physiology I	4			
		MATH Elective	3			
<u>ENGL</u>	<u>1301</u>	Composition	<u>3</u>			
		Total:	12			
FIRST YEAR						
Fall Ser						
BIOL	<u>2402</u>	Anatomy & Physiology II	4			
RADR	1311	Basic Radiographic Procedures	3			
RADR	1213	Principles of Radiographic Imaging I	2			
RADR	1360	Clinical	<u>3</u> 12			
	_	Total:	12			
Spring S	Semester					
		SBS Elective	3			
RADR	2301	Intermediate Radiographic Procedures	3			
RADR		Principles of Radiographic Imaging II	2			
RADR	1366	Practicum I	<u>3</u>			
		Total:	11			
	r Session					
RADR	1267	Practicum II	$\frac{2}{2}$			
		Total:	2			
SECOND YEAR						
Fall Ser						
RADR	-	Advanced Radiographic Procedures	4			
RADR		Radiographic Imaging Equipment	3			
RADR	2366	Practicum III	<u>3</u>			
Total:	a .		10			
Spring Semester						
DADD	0117	Humanities Elective	3			
RADR		Radiographic Pathology	1			
RADR		Radiation Biology & Protection	2			
RADR	2367	Practicum IV Total:	2 <u>3</u> 9			
Summer Session						
RADR	2235	CAPSTONE: Radiologic Tech. Seminar	2			
RADR	2166	CAPSTONE: Practicum V				
		Total:	$\frac{1}{3}$			

Total Credits Hours: 60

Identifies courses to fulfill 15 credit hour General Education Requirement

# \*RADR 1309: Introduction to Radiography & Patient Care

Enrollment requires verification of ACT Examination (English, Math, Reading, and Science) and Program Chair approval. There is no expiration of ACT examination dates or minimum scores for entrance into this course.

#### APPENDIX B

# RADIOLOGIC TECHNOLOGY COURSE DESCRIPTIONS

RADR 1213

Principles of Radiographic Imaging I

CRT HRS:02LEC HRS:01LAB HRS:04

This course is an introduction to radiographic image qualities and the effects of exposure variables upon those qualities. Photographic versus geometric properties, radiographic film types and development, film construction, section and systems of the processor and quality control are also included.

Prerequisite: Admission to the Radiologic Technology Program and concurrent enrollment in RADR 1311 and RADR 1360.

RADR 1267 Practicum II CRT HRS:02LEC HRS:00 OFF CAMPUS LAB HRS:16

This course provides practical, general workplace training supported by an individualized learning plan developed by the employer, college, and the student. The emphasis is to build upon acquired clinical skills and is simultaneously related to theory in the classroom.

Prerequisite: Admission to the Radiologic Technology Program; RADR 2301 and RADR 2205 with a minimum of "C" or better and RADR 1366 with a minimum of "B" or better.

RADR 1309

Introduction to Radiography and Patient Care

CRT HRS:03LEC HRS:03LAB HRS:00

This course includes an overview of the historical development of radiography, basic radiation protection, an introduction to medical terminology, ethical and legal issues for health care professionals, and an orientation to the program and to the health care system. Patient assessment, infection control procedures, emergency and safety procedures, communication and patient interaction skills, and basic pharmacology are also included.

Prerequisite: Must be ACT complete; preferred ACT of 19 composite; 16 in all sections and Departmental Approval Required.

RADR 1311

Basic Radiographic Procedures

CRT HRS:03LEC HRS:02LAB HRS:03

This course includes an introduction to radiographic positioning terminology, the proper manipulation of equipment, positioning and alignment of the anatomical structure and equipment, and evaluation of images for proper demonstration of basic anatomy.

Prerequisite: Admission to the Radiologic Technology Program and concurrent enrollment in RADR 1213 and RADR 1360.

RADR 1360

Clinical

CRT HRS:03LEC HRS:00

**OFF CAMPUS LAB HRS:18** 

This course is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. This course includes basic fundamental clinical instruction performed in the Diagnostic Radiology Department at the clinical education centers, and is simultaneously related to theory presented in the classroom.

Prerequisite: Admission to the Radiologic Technology Program and concurrent enrollment in RADR 1213 and RADR 1311.

RADR 1366

Practicum I

CRT HRS:03LEC HRS:00

**OFF CAMPUS LAB HRS:28** 

This course provides practical, general workplace training supported by an individualized learning plan developed by the employer, college, and the student. The emphasis is to build upon acquired clinical skills and is simultaneously related to theory in the classroom.

Prerequisite: Admission to the Radiologic Technology Program; RADR 1213 and RADR 1311 with a minimum of "C" or better, RADR 1360 with a minimum of "B" or better, and concurrent enrollment in RADR 2301 and RADR 2205.

**RADR 2117** 

Radiographic Pathology

CRT HRS:01LEC HRS:01LAB HRS:01

This course is a presentation of the disease process and common diseases and their appearance on medical images. Special image procedures and modalities used for diagnosis and treatment are also included.

Prerequisite: RADR 2431 and RADR 2309 with a minimum of "C" or better, RADR 2366 with a minimum of "B" or better, and concurrent enrollment in RADR 2213 and RADR 2367.

RADR 2166

Capstone: Practicum V CRT HRS:01LEC HRS:00 OFF CAMPUS LAB HRS:10

This course provides practical, general workplace training supported by an individualized learning plan developed by the employer, college, and the student. The emphasis is to build upon acquired clinical skills and is simultaneously related to theory in the classroom.

Prerequisite: Admission to the Radiologic Technology Program; RADR 2117 and RADR 2213 with a minimum of "C" or better, RADR 2367 with a minimum of "B" or better, and concurrent enrollment in RADR 2235.

**RADR 2205** 

Principles of Radiographic Imaging II

CRT HRS:02LEC HRS:01LAB HRS:04

This course covers Radiographic image quality and the effects of exposure variables, and the synthesis of all variables in image production.

Prerequisite: RADR 1311 and RADR 1213 with a minimum of "C" or better, RADR 1360 with a minimum of "B" or better, and concurrent enrollment in RADR 2301 and RADR 1366.

**RADR 2213** 

Radiation Biology and Protection

CRT HRS:02LEC HRS:02LAB HRS:01

This course is a study of the effects of radiation exposure on biological systems, typical medical exposure levels, methods for measuring and monitoring radiation, and methods for protecting personnel and patients from excessive exposure.

Prerequisite: RADR 2309 and RADR 2431 with a minimum of "C" or better, RADR 2366 with a "B" or better, and concurrent enrollment in RADR 2117 and RADR 2367.

**RADR 2235** 

Capstone: Radiologic Technology Seminar

CRT HRS:02LEC HRS:01LAB HRS:02

This capstone course focuses on the synthesis of professional knowledge, skills, and attitudes in preparation for professional employment and lifelong learning.

Prerequisite: RADR 2117 and RADR 2213 with a minimum of "C" or better, RADR 2367 with a minimum of "B" or better, and concurrent enrollment in RADR 2166.

RADR 2301

Intermediate Radiographic Procedures

CRT HRS:03LEC HRS:02LAB HRS:03

This is a continuation of the study of the proper manipulation of radiographic equipment, positioning and alignment of the anatomical structure and equipment, and evaluation of images for proper demonstration of anatomy.

Prerequisite: RADR 1213 and RADR 1311 with a minimum of "C" or better, RADR 1360 with a minimum of "B" or better, and concurrent enrollment in RADR 1366 and RADR 2205.

RADR 2309

Radiographic Imaging

Equipment

CRT HRS:03LEC HRS:02LAB HRS:03

This course is a study of the equipment and physics of x-ray production, basic x-ray circuits, and the relationship of equipment components to the imaging process.

Prerequisite: RADR 1267 with a minimum of "B" or better, and concurrent enrollment in RADR 2431 and RADR 2366.

**RADR 2366** 

Practicum III

CRT HRS:03LEC HRS:00

**OFF CAMPUS LAB HRS:24** 

This course provides practical, general workplace training supported by an individualized learning plan developed by the employer, college, and the student. The emphasis is to build upon acquired clinical skills and is simultaneously related to theory in the classroom.

Prerequisite: Admission to the Radiologic Technology Program; RADR 1267 with a minimum of "B" or better, and concurrent enrollment in RADR 2431 and RADR 2309.

RADR 2367

Practicum IV

CRT HRS:03LEC HRS:00

**OFF CAMPUS LAB HRS:28** 

This course provides practical, general workplace training supported by an individualized learning plan developed by the employer, college, and the student. The emphasis is to build upon acquired clinical skills and is simultaneously related to theory in the classroom.

Prerequisite: Admission to the Radiologic Technology Program; RADR 2431 and RADR 2309 with a minimum of "C" or better, RADR 2366 with a minimum of "B" or better, and concurrent enrollment in RADR 2117 and RADR 2213.

RADR 2431

Advanced Radiographic

Procedures

CRT HRS:04LEC HRS:03LAB HRS:04

This advanced course is a continuation of positioning; alignment of the anatomical structure and equipment, evaluation of images for proper demonstration of anatomy and related pathology. Non-Routine radiographic positioning, introduction to cross-sectional anatomy and trauma radiography are also included.

Prerequisite: RADR 1267 with a minimum of "B" or better, and concurrent enrollment in RADR 2309 and RADR 2366.

# **APPENDIX C**

# Diagnostic Medical Sonography 2016-2017 Advanced Technical Certificate

FIRST	YEAR		<b>Credit Hours</b>			
Spring Semester						
DMSO	1210	Introduction to Sonography	2			
<b>DMSO</b>	1260	Clinical				
<b>DMSO</b>	1302	Basic Ultrasound Physics	2 3 3 3 13			
<b>DMSO</b>	1341	Abdominopelvic Sonography	3			
<b>DMSO</b>	2305	Sonography of Obstetrics/Gynecology	3			
		Total:	13			
FIRST	YEAR					
Summer I Semester						
<b>DMSO</b>	1166	Practicum I	1			
<b>DMSO</b>	2351	Doppler Physics	<u>3</u> 4			
		Total:	$\frac{\overline{4}}{4}$			
Summer II Semester						
<b>DMSO</b>	1167	Practicum II	1			
<b>DMSO</b>	2353	Sonography of Superficial Structures	<u>3</u> 4			
		Total:	4			
Fall Semester						
DMSO	2366	Practicum III	3			
DMSO	1342	Intermediate Ultrasound Physics	3 3			
DMSO	2342	Sonography of High Risk Obstetrics	3			
DMSO	2441	Sonography of Abdominopelvic Pathology	<u>4</u> 13			
		Total:	13			
SECOND YEAR						
Spring Semester						
DMSO	2367	Practicum IV	3			
DMSO	2230	Advanced Ultrasound and Review	3 <u>2</u> 5			
		Total:	5			

Total Credits Hours: 39

#### APPENDIX D

# DIAGNOSTIC MEDICAL SONOGRAPHY COURSE DESCRIPTIONS

DMSO 1166 Practicum I

CRT HRS:01LEC HRS:00

**OFF CAMPUS LAB HRS:07** 

This course provides practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

Prerequisite: Admissions to the Diagnostic Medical Sonography Program; DMSO 1260 with a "B" or better, DMSO 1210, DMSO 1302, DMSO 1341 and DMSO 2305 with a "C" or better and concurrent enrollment in DMSO 2351.

DMSO 1167

Practicum II

CRT HRS:01LEC HRS:00

**OFF CAMPUS LAB HRS:07** 

This course provides practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

Prerequisite: Admissions to the Diagnostic Medical Sonography Program; DMSO 1166 with a "B" or better, DMSO 2351 with a "C" or better and concurrent enrollment in DMSO 2353.

DMSO 1210

Introduction to

Sonography

CRT HRS:02LEC HRS:02LAB HRS:00

This course is an introduction to the profession of sonography and the role of the sonographer. Emphasis is on medical terminology, ethical/legal aspects, written and verbal communication, and professional issues relating to registry, accreditation, professional organizations and history of the profession.

Prerequisite: Admissions to the Diagnostic Medical Sonography Program, an AAS degree in Radiologic Technology and a current ARRT certification.

DMSO 1260

Clinical

CRT HRS:02LEC HRS:00

**OFF CAMPUS LAB HRS:12** 

This course provides a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

Prerequisite: Admissions to the Diagnostic Medical Sonography Program and current enrollment in DMSO 1210, DMSO 1302, DMSO 1341 and DMSO 2305.

**DMSO** 1302

**Basic Ultrasound Physics** 

CRT HRS:03LEC HRS:03LAB HRS:01

This course is about the basic acoustical physics and acoustical waves in human tissue. Emphasis is on ultrasound transmission in soft tissues, attenuation of sound energy, parameters affecting sound transmission and resolution of sound beams.

Prerequisite: Admissions to the Diagnostic Medical Sonography Program and current enrollment in the following: DMSO 1210, DMSO 1260, DMSO 1341 and DMSO 2305.

DMSO 1341

Abdominopelvic Sonography

CRT HRS:03LEC HRS:03LAB HRS:01

This course includes an overview of normal anatomy and physiology of the abdominal and pelvic cavities as related to scanning techniques, transducer selection, and scanning protocols.

Prerequisite: Admissions to the Diagnostic Medical Sonography Program and current enrollment in the following: DMSO 1210, DMSO 1260, DMSO 1302 and DMSO 2305.

DMSO 1342

Intermediate Ultrasound

Physics

CRT HRS:03LEC HRS:03LAB HRS:01

This course offers a continuation of Basic Ultrasound Physics, which includes interaction of ultrasound with tissues, mechanics of ultrasound production and display, various transducer designs and construction, quality assurance, bioeffects, and image artifacts. It may introduce methods of Doppler flow analysis.

Prerequisite: Admissions to the Diagnostic Medical Sonography Program; DMSO 1167 with a "B" or better, DMSO 2353 with a "C" or better and concurrent enrollment in DMSO 2366, DMSO 2342 and DMSO 2441.

DMSO 2230

Advanced Ultrasound and

Review

CRT HRS:02LEC HRS:02LAB HRS:01

This course covers knowledge, skills and professional values within a legal and ethical framework addressing emerging technologies and professional development.

Prerequisite: Admissions to the Diagnostic Medical Sonography Program; DMSO 2366 with a "B" or better, DMSO 2342, DMSO 1342 and DMSO 2441 with a "C" or better and concurrent enrollment in DMSO 2367.

**DMSO 2305** 

Sonography of

Obstetrics/Gynecology

CRT HRS:03LEC HRS:03LAB HRS:01

This course provides a detailed study of the pelvis and obstetrics/gynecology as related to scanning techniques, patient history and laboratory data, transducer selection, and scanning protocols.

Prerequisite: Admissions to the Diagnostic Medical Sonography Program and current enrollment in the following: DMSO 1210, DMSO 1260, DMSO 1302 and DMSO 1341.

DMSO 2342

Sonography of High Risk

Obstetrics

CRT HRS:03LEC HRS:03LAB HRS:01

This course provides an overview of maternal disease and fetal abnormalities. It includes scanning techniques, patient history and laboratory data, transducer selection, and scanning protocols.

Prerequisite: Admissions to the Diagnostic Medical Sonography Program; DMSO 1167 with a "B" or better, DMSO 2353 with a "C" or better and concurrent enrollment in DMSO 2366, DMSO 1342 and DMSO 2441.

DMSO 2351

**Doppler Physics** 

CRT HRS:03LEC HRS:03LAB HRS:00

This course provides an overview of the Doppler and hemodynamic principles relating to arterial and venous imaging and testing.

Prerequisite: Admissions to the Diagnostic Medical Sonography Program; DMSO 1260 with a "B" or better, DMSO 1210, DMSO 1302, DMSO 1341 and DMSO 2305 with a "C" or better and concurrent enrollment in DMSO 1166.

DMSO 2353

Sonography of Superficial

Structures

CRT HRS:03LEC HRS:03LAB HRS:00

This course provides a detailed study of normal and pathological superficial structures as related to scanning

techniques, patient history and laboratory data, transducer selection, and scanning protocols.

Prerequisite: Admissions to the Diagnostic Medical Sonography Program; DMSO 1166 with a "B" or better, DMSO 2351 with a "C" or better and concurrent enrollment in DMSO 1167.

DMSO 2366

Practicum III

CRT HRS:03LEC HRS:00

**OFF CAMPUS LAB HRS:24** 

This course provides practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

Prerequisite: Admissions to the Diagnostic Medical Sonography Program; DMSO 1167 with a "B" or better, DMSO 2353 with a "C" or better and concurrent enrollment in DMSO 2342, DMSO 1342 and DMSO 2441.

**DMSO 2367** 

Practicum IV

CRT HRS:03LEC HRS:00

**OFF CAMPUS LAB HRS:24** 

This course provides practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

Prerequisite: Admissions to the Diagnostic Medical Sonography Program; DMSO 2366 with a "B" or better, DMSO 2342, DMSO 1342 and DMSO 2441 with a "C" or better and concurrent enrollment in DMSO 2230.

**DMSO 2441** 

Sonography of Abdominopelvic

Pathology

CRT HRS:04LEC HRS:04LAB HRS:01

This course provides an overview of the pathologies and disease states of the abdomen and pelvis as related to scanning techniques, patient history and laboratory data, transducer selection, and scanning protocols. Emphasis in the endocavity sonographic anatomy and procedures including pregnancy.

Prerequisite: Admissions to the Diagnostic Medical Sonography Program; DMSO 1167 with a "B" or better, DMSO 2353 with a "C" or better and concurrent enrollment in DMSO 2366, DMSO 2342 and DMSO 1342.