UAB SCHOOL OF HEALTH PROFESSIONS

Knowledge that will change your world

Clinical and Diagnostic Sciences

Nuclear Medicine Technology Program

2018-2019

STUDENT HANDBOOK

UAB School of Health Professions

Department of Clinical and Diagnostic Sciences

Nuclear Medicine Technology Program

2018-2019 Academic Handbook

Norman E. Bolus, MSPH,MPH, CNMT,FSNMMI-TS
Program Director

8/2/18
Date

Peter G. Anderson, DVM, PhD
Interim Department Chair

8/2/18
Date

Harold P. Jones, Ph.D.
Dean, School of Health Professions

8/9/18
Date

TABLE OF CONTENTS

INTRODUCTION

DEAN'S WELCOME MESSAGE

Welcome to the University of Alabama at Birmingham School of Health Professions (SHP), one of the nation's leaders in the health care industry.

We are home to one of the largest health professions schools in the nation with more than 25 programs at the baccalaureate, master's, and doctoral levels with over 2,000 undergraduate and graduate students enrolled. The School of Health Professions is part of UAB's thriving academic health center. As one of our students, you will have the opportunity to work side-by-side with world-renowned researchers and faculty, utilize advanced technologies and experience cutting-edge approaches to clinical treatment.

We understand that healthcare needs are constantly changing. That is why we continue to add innovative programs such as Biotechnology, Genetic Counseling, our one-of-a-kind Low Vision Rehabilitation graduate certificate, Healthcare Quality and Safety, Ph.D. in Rehabilitation Science, and a Master's in Biomedical and Health Sciences, which can be completed within eleven months. Our newest programs are Healthcare Simulation and Clinical Pathologist Assistant, and we have many other well-established curriculums.

Our degrees and programs are fully accredited by their respective professional organizations. This means you will be eligible for licensure, national certification or registration, and enjoy being in high demand within the job market. Our first-time student exam pass rate on credentialing exams is an astounding 98 percent.

All of our programs with rankings preside among the nation's top 25 of the *U.S. News and World Report*. We continue to be rated at the top of the list in research funding from the National Institutes of Health, and SHP is the only school in the country to house both an NIH-funded Nutrition and Obesity Research Center and an NIH Diabetes Research and Training Center.

Graduating from SHP means you will have acquired an esteemed degree, enjoy choosing among a host of job options in healthcare, an industry that continues to grow rapidly, and be well-prepared to make a difference in your field.

Our alumni give advice to current students that is worth repeating: 'be a sponge, learn your craft, be a better professional for your patients, be open minded to future possibilities, and remember to have a healthy work/ life balance'. I look forward to seeing you grow in your respective field and watching you become the professional we know you can be.

Harold P. Jones, PhD
Dean, UAB School of Health Professions

OVERVIEW OF THE SCHOOL OF HEALTH PROFESSIONS

A leader in federally funded research, the UAB School of Health Professions (SHP), is the largest academic institution of its type in the United States and currently boasts nationally ranked programs. What began in the 1950's as a collection of courses in various para-professional disciplines has grown into an internationally recognized center of academic excellence.

The SHP initially took shape in 1969 as UAB gained autonomy within the University of Alabama System. Originally christened the School of Community and Allied Health Resources (SCAHR), the school incorporated the School of Health Services Administration and the Division of Allied Health Sciences from the College of General Studies with parts of the Department of Public Health and Epidemiology from the medical school. An innovative facility designed to meet the growing needs of the health care industry, the SCAHR was divided into four academic divisions that functioned like regular academic departments: Health Services Administration, Public Health and Environment, Allied Health Sciences, and the Regional Technical Institute for Health Occupations.

Throughout the 1970's and 80's the school's offerings were amended to reflect the changing health care industry. As a result of the changes, SCAHR became the School of Public and Allied Health (SPAH). Next it became the School of Community and Allied Health (SCAH) and later the School of Health Related Professions (SHRP). During this time, the school added several new areas of study including the consistently nationally ranked program in Nutrition Sciences.

Dr. Harold Jones became the school's dean in 2001. Through his visionary leadership and guidance, the school is experiencing unparalleled success. Up until that time, the SHRP's programs were housed in various locations throughout the UAB campus. However, in the spring of 2002, many of the classrooms, laboratories and faculty offices moved to the newly completed School of Health Professions Building (SHPB). This was the first building dedicated to housing health related programs since their original grouping more than 30 years prior.

Today, the school is the School of Health Professions, and is comprised of more than 25 programs – at the baccalaureate, master's and doctoral levels – across five academic departments: Clinical and Diagnostic Sciences, Health Services Administration, Nutrition Sciences, Occupational Therapy, and Physical Therapy. The school is housed in three buildings, the Susan Mott Webb Nutrition Sciences Building, the Learning Resource Center Building, and the School of Health Professions Building (SHPB). With more than 2,200 faculty, staff, and students, SHP is one of six schools comprising the world-renowned UAB Academic Health Center. Students have access to vast academic resources, state-of-the-art facilities, and progressive research.

SHP is proud of many accomplishments including:

- U.S. News & World Report ranks SHP programs in the nation's top 25
- Research funding is over $14 million and growing
- The school is at the top of the list in research funding from the National Institutes of Health for schools of its type and has been either first or second in funding received since 1969

OFFICE FOR STUDENT RECRUITMENT, ENGAGEMENT AND SUCCESS (OSRES)

The SHP Office for Student Recruitment, Engagement and Success (OSRES) supports UAB's mission and values with a focus on achievement, collaboration and diversity. It furthers the School of Health Professions' mission to be a leader shaping the future of healthcare by recruiting the best and brightest to SHP; developing students to impact the campus and communities; and graduating tomorrow's healthcare leaders. Guided by these commitments, the OSRES provides support to all students through a number of programs including the following:

- Academic Coaching
- Tutoring and Supplemental Instruction
- Campus Resource Referral
- Management of school-wide Scholarships in SHP

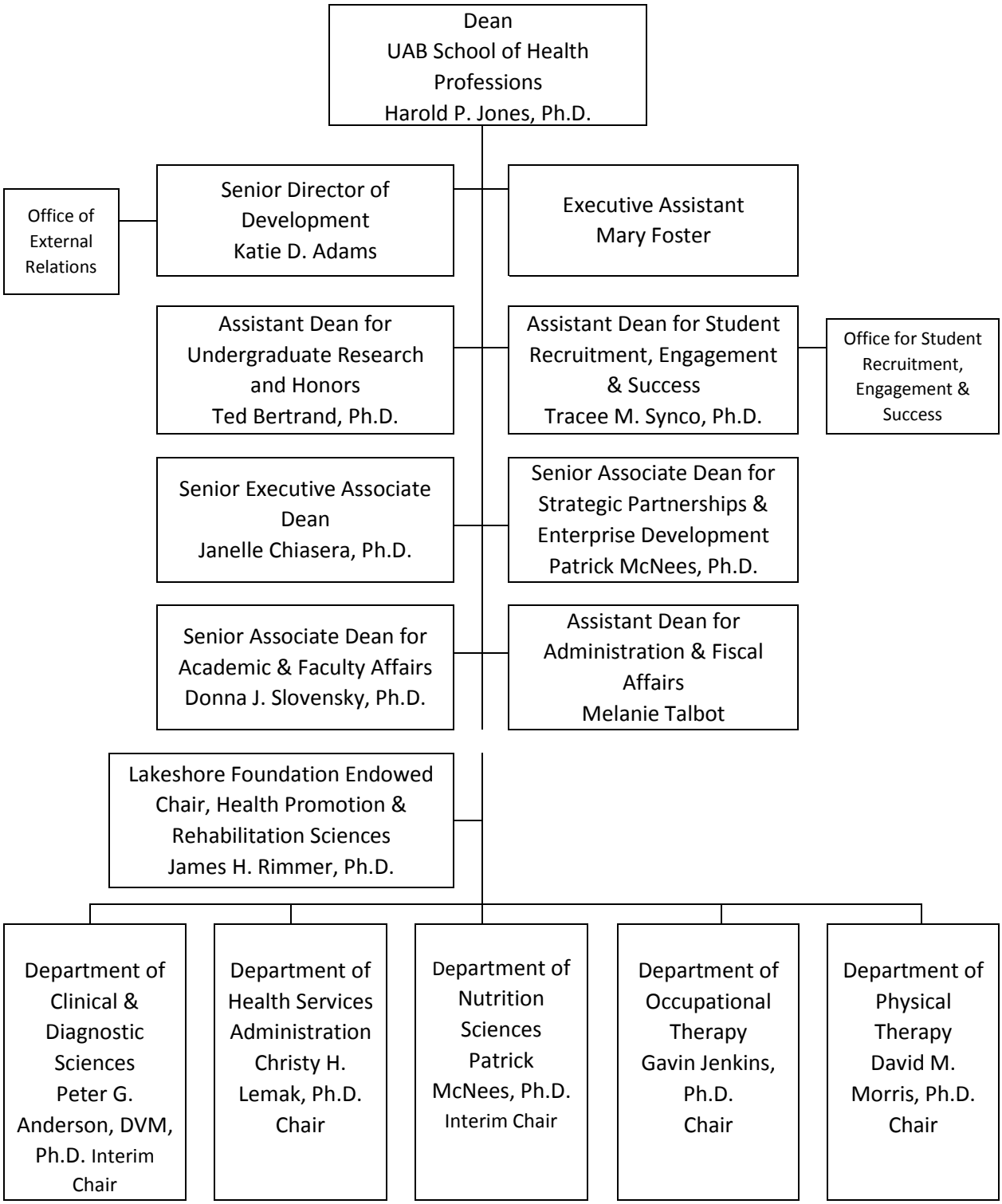
The OSRES also coordinates the School of Health Professions Student Affairs Committee (SAC.) SAC is responsible for student activities, services, programs, organizations, policies and procedures consistent with the university's non-academic conduct policies. Subcommittees of SAC include the following:

- Homecoming
- Orientation
- Student Activities
- Non Academic Misconduct/ Breaches in Professional Behaviors

Additionally, the OSRES team recognizes that with classes and labs, internships, and studying, students have particularly demanding schedules. In response, we bring resources to you and serve as liaison between SHP and university departments across student services.
The team at OSRES is here to support students. We have an open-door policy and encourage students to connect. Students should feel free to drop-by, no appointment needed; call, email or schedule a meeting. We are here to help students in the School of Health Professions make the most of their UAB experience.

OSRES - Location: SHPB 230 Telephone: 205-934-4195 or 205-934-4194 Email: shp@uab.edu

SCHOOL OF HEALTH PROFESSIONS ORGANIZATIONAL CHART - 2018-2019



SECTION 1 – SCHOOL AND UNIVERSITY INFORMATION

ACADEMIC CALENDAR

All dates related to registration, payments of tuition and fees drop/add dates, other administrative requirements, and official school holidays are recorded on the UAB Academic Calendar available at www.uab.edu/academiccalendar.

ACADEMIC HONOR CODE (UAB)

The University of Alabama at Birmingham expects all members of its academic community to function according to the highest ethical and professional standards. Students, faculty, and the administration of the institution must be involved to ensure this quality of academic conduct. Academic misconduct undermines the purpose of education. Such behavior is a serious violation of the trust that must exist among faculty and students for a university to nurture intellectual growth and development. Academic misconduct can generally be defined as all acts of dishonesty in an academic or related matter.
Academic dishonesty includes, but is not limited to, the following categories of behavior:
ABETTING is helping another student commit an act of academic dishonesty. Allowing someone to copy your quiz answers or use your work as their own are examples of abetting.
CHEATING is the unauthorized use or attempted use of unauthorized materials, information, study aids, the work of others, or computer-related information.
PLAGIARISM means claiming as your own the ideas, words, data, computer programs, creative compositions, artwork, etc., done by someone else. Examples include improper citation of referenced works, the use of commercially available scholarly papers, failure to cite sources, or copying another person's ideas.
FABRICATION means presenting falsified data, citations, or quotations as genuine.
MISREPRESENTATION is falsification, alteration, or the misstatement of the contents of documents, academic work, or other materials related to academic matters, including work substantially done for one class as work done for another without receiving prior approval from the instructor.
Violations of the UAB Academic Honor Code are punishable by a range of penalties, from receiving a failing grade on an assignment, to an F in the course, to dismissal. Any course grade of F for academic misconduct supersedes any other grade or notation for that class. Withdrawal from a course while a possible violation of the Academic Honor Code is under review will not preclude the assignment of a course grade that appropriately reflects the student's performance prior to withdrawal if the violation is substantiated.

For more information go to: www.uab.edu/students/one-stop/policies/academic-honor-code

ASKIT

AskIT is the technology help desk for faculty, staff, and students. They provide free support via telephone, email, or in-person. You will be asked to supply your BlazerID when you request assistance.
Phone: (205) 996-5555 Email: askit@uab.edu Website: https://uabprod.service-now.com/ess_portal/home.do

ATTENDANCE

Class attendance is expected in all SHP programs. Specific class, laboratory or clinical site attendance requirements may be more stringent than university guidelines. Refer to the program requirements in this handbook and in course syllabi for policies. The UAB policy for undergraduates follows.

The University of Alabama at Birmingham recognizes that the academic success of individual students is related to their class attendance and participation. Each course instructor is responsible for establishing policies concerning class attendance and make-up opportunities. Any such policies, including points for attendance and/or participation, penalties for absences, limits on excused absences, total allowable absences, etc., must be specified in the course syllabus provided to students at the beginning of the course term. Such policies are subject to departmental oversight and may not, by their specific prescriptions, negate or circumvent the accommodations provided below for excused absences.

The University regards certain absences as excused and in those instances requires that instructors provide an accommodation for the student who misses assignments, presentations, examinations, or other academic work of a substantive nature by virtue of these excused absences. Examples include the following:

Absences due to jury or military duty provided that official documentation has been provided to the instructor in a timely manner in advance.

Absences of students registered with Disabilities Services for disabilities eligible for "a reasonable number of disability-related absences" provided students give their instructors notice of a disability-related absence in advance or as soon as possible.

Absences due to participation in university-sponsored activities when the student is representing the university in an official capacity and as a critical participant, provided that the procedures below have been followed:

Before the end of the add/drop period, students must provide their instructor a schedule of anticipated excused absences in or with a letter explaining the nature of the expected absences from the director of the unit or department sponsoring the activity.

If a change in the schedule occurs, students are responsible for providing their instructors with advance written notification from the sponsoring unit or department.

Absences due to other extenuating circumstances that instructors deem excused. Such classification is at the discretion of the instructor and is predicated upon consistent treatment of all students. In these instances, instructors must devise a system for reasonable accommodation including, for example, policies allowing for dropped exams/quizzes, make-up exams, rescheduling of student classroom presentations or early or later submission of written assignments.

AWARDS AND HONOR SOCIETIES

All students in the School of Health Professions are eligible for consideration for following awards or society memberships.

- Alfred W. Sangster Award for Outstanding International Student – This award is presented annually to an international student in recognition of his or her academic and non-academic achievements.
- Alpha Eta Society – The UAB Chapter of this Society recognizes students registered in the final term of a baccalaureate or graduate health professions program. Inductees must have a cumulative grade point average of 3.0 (4.0 = A), and be in the upper 10% of their program. Nominations are made by program directors in spring and summer terms.

- Cecile Clardy Satterfield Award for Humanism in Health Care – This award is made annually to recognize one outstanding student for humanitarianism, professionalism, and commitment to health care. Nominations are coordinated by program directors, but may also be made by faculty, students, patients, or preceptors.
- Charles Brooks Award for Creativity – This award is made annually in recognition of creative accomplishments such as written publications or artistic contributions which complemented the student's academic activities. Nominations are made by program directors.
- Dean's Leadership and Service Award – Presented to a maximum of three outstanding SHP students annually, this award recognizes leadership to the School, UAB, and the community. Nominations are made by program directors or faculty.
- Phi Kappa Phi – This is the oldest, and most selective, all-discipline honor society in the nation. Membership is by invitation to the top 7.5% of junior students and the top 10% of seniors and graduate students. Nominations are made by program directors.

Please refer to the program section of this handbook for awards and honors available to students in individual programs.

Background Check

SHP students are required by policy, to undergo a background check using the school's approved vendor, CastleBranch www.castlebranch.com, at the time of program admission, and again, prior to placement in a clinical rotation. Instructions for requesting the background check and appropriate consent forms are provided to students by their programs. Please refer to the policy section of this handbook for the policy statement.

BlazerID / BlazerNET / Email

BLAZERID: All students receive a unique identifier, the BlazerID, established at: www.uab.edu/blazerid. Your BlazerID is required for accessing BlazerNET and other campus resources. To activate one's BlazerID, select "Activate Accounts."

BlazerNET is the official portal of the UAB information network and is accessible from any Internet-accessible computer, on- or off-campus.Access BlazerNET from UAB home page www.uab.edu then choose UAB Quicklinks.

Email: uab.edu Monitor your email regularly. Your UAB email is the official communication medium for courses, news, information and announcements. UAB student email is provided through Microsoft Office 365, a cloud based system. Students have 50 GB of email space and 25 GB of free file 1 TB storage.

Blazer Express

The UAB Blazer Express Transit System provides transportation throughout the UAB campus. With a valid UAB ID badge, students can enjoy fare-free bus transportation. All buses are ADA-accessible and can seat approximately 35 riders. For an updated schedule, route maps, and hours of operation please go to www.uab.edu/blazerexpress/.

BOOKSTORE

There is one bookstore located on the UAB campus, offering a wide variety of products and services to students, including online purchasing and shipping. The bookstore stocks UAB memorabilia and college wear in addition to all required textbooks and course material.

UAB BARNES AND NOBLE BOOKSTORE

Location: 1400 University Blvd, 35233
Hours: M – F 9:00 a.m. – 5:00 pm.; Sat 7:00 a.m. – 6:30 p.m.; Sun --Closed
Telephone: (205) 996-2665 Website: http://uab.bncollege.com

CAMPUS ONECARD

The UAB OneCard is the official university identification card. It is used for personal identification, for entry to campus events and the recreation center, for library checkout, and other UAB services. It also serves as a declining balance card for the UAB meal plans and for Blazer Bucks accounts. Additional information is available at www.uab.edu/onecard.

CAMPUS MAP

UAB's campus map can be found at the following: www.uab.edu/map/

CANVAS LEARNING MANAGEMENT SYSTEM

The Canvas Learning Management System is the platform used for managing instructional materials online. Canvas course sites are accessed through BlazerNET or at www.uab.edu/elearning/canvas. Students should monitor their course sites routinely for communication from faculty and manage course assignments.

COUNSELING SERVICES

The Counseling and Wellness Center offers no cost, confidential counseling for UAB students related to physical, emotional, social, intellectual, or spiritual concerns. The Center is located in Student Health and Wellness Center at 1714 9th Ave. South. For more information, call 205-934-5816 or www.uab.edu/studenthealth/counseling

STUDENT ADVOCACY, RIGHTS AND CONDUCT (SARC)

Student Advocacy, Rights and Conduct (SARC) is responsible for upholding the integrity and purpose of the university through the fair and consistent application of policies and procedures to students' behavior to ensure a community that respects the dignity and right of all persons to reach their highest potential. SARC delivers programs and services in order to promote student safety and success, the pursuit of knowledge, respect for self and others, global citizenship, personal accountability and integrity, and ethical development. The UAB student conduct code may be accessed online: http://www.uab.edu/students/sarc/services/student-conduct-code

DISABILITY SUPPORT SERVICES (DSS)

"DSS provides an accessible university experience through collaboration with UAB partners. These partnerships create a campus where individuals with disabilities have equal access to programs, activities, and opportunities by identifying and removing barriers, providing individualized services, and facilitating accommodations."

"DSS serves as the university-appointed office charged with providing institution-wide advisement, consultation, and training on disability-related topics which include legal and regulatory compliance, universal design, and disability scholarship."

To apply for accommodations contact DSS. ***Note:*** *You must have your Blazer ID and password.*

Telephone: (205) 934-4205 or (205) 934-4248 (TDD) Fax: (205) 934-8170
Email: dss@uab.edu Website: www.uab.edu/students/disability/

DRUG SCREENING

By policy, SHP students are required to undergo a routine drug screen using the school's approved vendor, CastleBranch www.castlebranch.com, at the time of program admission and again prior to placement in a clinical rotation. Instructions for requesting the drug screen and appropriate consent forms will be provided to students by their programs. Please refer to the policy section of this handbook for the school and university policy statements. The Office for Student Recruitment, Engagement and Success (OSRES) manages the procedures and compliance for the school. If you have questions, contact them at (205) 934-4194 or shp@uab.edu or visit room 230 in the School of Health Professions Building. For more information visit: http://www.uab.edu/shp/home/about-shp/student-services

EMERGENCIES

Report suspicious or threatening activity to the UAB Police Department immediately. Law officers are available 24 hours, seven days a week. Also, more than 300 emergency blue light telephones connected directly to the police dispatch are located throughout campus.

UAB Police: Dial 911 *from a campus phone* or call: 934-3535; 934-HELP (4357); or 934-4434

Emergencies affecting campus are communicated via the following:

Weather & Emergency Hotline: (205) 934-2165 • University home web page: www.uab.edu

- Webpage: www.uab.edu/emergency
- Announcements on BlazerNET
- Twitter@UABALERT: www.twitter.com/uabalert
- facebook.com/UABALERT
- Cell phone messages and SMS text – register for B-ALERT notices via www.uab.edu/balert

DIVERSITY, EQUITY AND INCLUSION (DEI)

The mission of DEI is to "… champion equity and inclusion and, in particular, to advocate for inclusive excellence and equity so that UAB students, faculty, staff, community partners and friends can flourish and excel." Inspired by "… what we value, what we learn from research and what we teach and share with the world." DEI's goal is "… to inspire our people to take a courageous step to inspire equity and inclusive excellence throughout our state, nation and world, every day." Dr. Paulette Patterson Dilworth is the Vice President responsible for the activities of this office. Information: http://www.uab.edu/dei/

FERPA

The Family Educational Rights and Privacy Act (FERPA) of 1974 provides protection for all educational records related to students enrolled in an educational program. Information about your rights and protection of your records is available at the following sites: https://sa.uab.edu/enrollmentservices/ferpa/; If you have questions or concerns about FERPA issues, you may email FERPA@uab.edu, or contact the SHP Office for Student Recruitment, Engagement and Success.

Financial Aid

Located at 1700 University Blvd., Lister Hill Library, Room G20. Hours of Operation are from 8:00 am to 5:00 pm Monday thru Friday. Phone: (205) 934-8223; Fax: (205) 975-6168. Additional information can be located on the website www.uab.edu/students/paying-for-UAB.

Food Services

Dining facilities available on campus, closest to the SHP buildings include:

- Commons on the Green – located on the Campus Green, south of 9th Avenue and the Campus Recreation Center
- Einstein's Bagels – located at the plaza entrance to the Learning Resource Center. Hours vary per semester.

Vending machines are located in the basement of the Learning Resource Center and on the 6th floor of the Webb Building. Additional information about meal plans and campus dining facilities is available at www.uab.edu/dining.

Graduate School

The UAB Graduate School offers doctoral programs, post-master's specialist programs, and master's level programs. Graduate programs in SHP are coordinated through the Graduate School and students must adhere to the Graduate School policies and procedures. Graduate School information for current students is available at www.uab.edu/graduate/.

Graduation

All students must complete an application for degree six months prior to graduating. For more information and important deadlines please go to www.uab.edu/commencement/degree-applications. SHP holds a special commencement ceremony for graduates in the professional masters programs in the spring and fall semesters. The SHP ceremonies are scheduled on the Friday afternoon prior to the university commencement ceremonies being held the next morning on Saturday. The University holds commencement every semester. Check the commencement website for the most current information: http://www.uab.edu/commencement/

Student Health and Wellness

The University provides prevention, counseling, and treatment services to students through the UAB Student Health and Wellness located at 1714 9th Avenue South. The clinic is open from 8:00 a.m. – 5:00

p.m. Monday – Friday, but is closed between noon and 1:00 p.m. daily. Detailed information about services and operating practices is located on the SHS website at www.uab.edu/studenthealth. Appointments may be scheduled by calling 205-934-3581.

MEDICAL CLEARANCE

SHP students are required to receive medical clearance at the time of program admission. UAB Student Health and Wellness utilizes a secure web-based process for the storage of required documents accessed through BlazerNET. More information is available at the Student Health and Wellness website: www.uab.edu/students/health/medical-clearance/immunizations.

HIPAA TRAINING

The Health Insurance Portability and Accountability Act includes significant requirements for protecting individual privacy of health information. All students in the School of Health Professions must complete an online tutorial and be tested on HIPAA regulations at the time of program admission. A BlazerID is required to access the training site, located at www.uab.edu/learningsystem. Compliance with the training requirement is monitored monthly. Students who have not completed the training are reported to the Office for Student Recruitment, Engagement, and Success for follow-up with the appropriate program director.

INSTITUTIONAL REVIEW BOARD FOR HUMAN USE (IRB)

Student researchers must comply with all requirements for protection of human subjects. Detailed information is available on the IRB website www.uab.edu/irb

INTELLECTUAL PROPERTY

Intellectual property refers to an asset that originated conceptually, such as literary and artistic works, inventions, or other creative works. These assets should be protected and used only as the creator intends. Training materials defining inventor status, patent criteria, and other intellectual property issues is available at www.uab.edu/research/administration/offices/OSP/Pages/Training.aspx.

LACTATION CENTERS

Through the work of the UAB Commission on the Status of Women, the University has provided several lactation centers for students, faculty, and staff across the campus. Locations of the centers are available at www.uab.edu/women/resources/campus-lactation-centers.

LIBRARIES AND LEARNING RESOURCE CENTER

UAB's libraries house excellent collections of books, periodicals, microforms, and other media. have online remote access to catalogs and online collections. Computers are available for student use during regular hours of operation.

Learning Resource Center (LRC)

The School of Health Professions Learning Resource Center (LRC) provides a unique set of enterprise solutions that promote an exciting, intriguing and innovative learning environment. It

provides a state-of-the-art media studio; audio/visual support; and information technology management of public, classroom and testing labs. Web: http://www.uab.edu/lrc/

Located: 1714 9th Avenue S. Phone: (205) 934-5146 Email: shplrc@uab.edu
Hours: Monday – Thursday 7:00 am – 8 pm; Friday 7 am – 5:30 pm; closed weekends

Lister Hill Library of the Health Sciences

This is the largest biomedical library in Alabama, and one of the largest in the south. Located across the crosswalk from the School, the LHL has extension libraries in University Hospital and The Kirklin Clinic. Dedicated librarians hold "office hours" in the Learning Resource Center weekly.
Location: 1700 University Boulevard Phone: (205) 934-2230
Website: www.uab.edu/lister/

Mervyn H. Sterne Library

A collection of more than one million items supporting teaching and research in the arts and humanities, business, education, engineering, natural sciences and mathematics, and social and behavioral sciences.

Location: 913 13th Street South Website: www.mhsl.uab.edu
Phone: (205) 934-6364 (Reference) (205) 934-4338 (User Services)

ONESTOP STUDENT SERVICES

If you have questions or need assistance with an academic or administrative process, the UAB OneStop is where to go! Advisers will help you solve your problem or do the legwork for you if another UAB resource is needed. OneStop is located in the Hill Student Center 1400 University Blvd. You may contact the OneStop office by phone or email at (205) 934-4300; 855-UAB-1STP; (855) 822-1787. onestop@uab.edu. Additional information is available at www.uab.edu/onestop.

PARKING

Student vehicles must be registered with UAB Parking and Transportation Services, located at 608 8th Street South. The office is open Monday – Friday from 7:30 a.m. – 5:00 p.m. Parking is allocated on a first-come, first-served basis. Parking fees are established by location, payable by semester or year, and are billed to the student's account. Additional information is available at www.uab.edu/parking.

PATIENT CARE PARTNERSHIP

Students in health professions programs learn general information about the health care industry as well as knowledge and skills specific to their chosen profession. The American Hospital Association (AHA) (www.aha.org) is an excellent resource for industry information. One role fulfilled by the AHA is that of patient advocate. The Patient Care Partnership brochure (link below) outlines rights and responsibilities of patients during hospital stays.
www.aha.org/aha/issues/Communicating-With-Patients/pt-care-partnership.html.

Plagiarism and TurnitIn

Plagiarism is academic misconduct that will result in a grade of zero and may result in dismissal from the School of Health Professions and UAB (see Grievance Procedures for Violations of Academic Standards). All papers submitted for grading in any SHP program may be reviewed using the online plagiarism monitoring software. Please note that all documents submitted to *Turnitin.com* are added to their database of papers that is used to screen future assignments for plagiarism.

Recreation Center

The campus Recreation Center, located at 1501 University Blvd, Birmingham, AL 35294, is open to faculty, staff, students, and their families. A valid student identification card or membership card is required for access. Facilities include basketball courts, racquetball courts, weight rooms, swimming pools, exercise rooms, and indoor track. Check the website for information about hours and services at www.uab.edu/campusrecreation.

Scholarships: Blazer Scholarship Management and Resource Tool (B-SMART)

The OSRES manages the School of Health Professions' scholarship offerings and will send reminders to students when applications are open. Visit B Smart and start an application to automatically be considered for scholarship opportunities in SHP.

OSRES manages the following:

National Alumni Society Dean's Scholarship – Funding from the UAB National Alumni Society for two scholarships per year, one to a graduate student and one to an undergraduate student.

Ethel M. and Jessie D. Smith Endowed Nursing and Allied Health Scholarship – Funding for students enrolled in SHP programs with GPA 3.0 or above and unmet financial need. Student must be a resident of the state of Alabama at the time of enrollment.

Carol E. Medders Endowed Scholarship – Funding for students enrolled in a graduate program in the School of Health Professions. Awards are based on academic achievement and unmet financial need.

Lettie Pate Whitehead Foundation Scholarship – Funding for female students from selected states (AL, FL, GA, LA, MS, NC, SC, TN) enrolled in SHP programs. Award amounts are variable and are based on unmet financial need.

Matthew F. McNulty Jr. Health Services Emergency Loan – Students enrolled in any SHP program may apply for this low interest loan to address emergencies. Loan amounts are variable based on need.

SHP Dean's Scholarship – Funding to recruit or retain outstanding students. Awards are based on academic achievement, and unmet financial need.

Sandra Dunning Huechtker Endowed Memorial Award – Funding for students enrolled in SHP program with GPA 3.0 or above and unmet financial need.

You must visit B-SMART http://www.uab.edu/students/paying-for-college/ to apply.
Many programs in SHP also have scholarships available to currently enrolled students. Please see the program section of this handbook for that information.

SOCIAL MEDIA

Social media can serve as useful communication tools. However, health professions students should use the forums judiciously. The School's official sites are the following:

- Twitter: https://twitter.com/uab_shp
- Facebook: www.facebook.com/UABSHP
- YouTube: www.youtube.com/uabshp
- Vimeo: http://vimeo.com/uabshp
- LinkedIn: www.linkedin.com/groups?gid=3596638
- Website: www.uab.edu/shp

The School's Academic Affairs Committee published the following guidelines:

The Academic Affairs Committee proposes the following for social networking vehicles. Online communities like provide opportunities to share and explore interests that enrich the higher education learning experience. However, use them with discretion. UAB social media users are expected to act with honesty, integrity, and respect for others.

Professional Use - Only UAB employees authorized by their departments may use social networking Web sites to conduct University business. The authorized employee/position will serve as the point of contact for the web site. In keeping with University policy[1], the authorized employee may post on a social network profile: the University's name, school, department, and/or unit information, a University email address or University telephone number for contact purposes, or post official department information, resources, calendars, and events. The employee should use care that any personal opinions or opposition to the University either by direct statement or perception not be published.

General Use - The following guidelines are strongly suggested:

1. Use networking sites legally and appropriately. Consider your personal obligation as a citizen of the university. Use proper conduct in your posts regarding the university and your colleagues/fellow students.
2. Consider the use of a student, staff or faculty member to monitor any departmental social pages. All parties need to understand the guidelines presented.
3. Remember, you cannot ensure who does and does not have access to your information. Any text or photo placed online is available to anyone in the world – even if you limit access to your site.
4. Information that you post online may continue to stay on the World Wide Web even after you erase or delete that information from your profiles or blog. Do not post anything that could reflect negatively on you, your family, your friends, and the university.
5. Do not post any confidential or sensitive information online.
6. By agreeing to the terms of use, online communities have your permission to republish your content worldwide and share information with advertisers, third parties, law enforcement, and others.
7. You are legally responsible for your posts on the social networking sites. Be discreet, respectful, and as accurate/factual as you can be in any comments or content you posted online.
8. Potential employers, admissions officers, and scholarship committees often search social networking sites to screen candidates. Your profile will be a part of how others know you.

TUITION AND FEES

Tuition and fees for the University are published annually under the "Current Students" tab of the UAB website. They may be paid through BlazerNET. There are two tuition rates: Alabama resident (in-state) and Non-resident (out-of-state). Currently, non-resident students who register for online course sections pay resident tuition. Non-resident tuition is charged for on-site courses such as: clinical practicums, independent study courses, and project courses.

SHP programs have specific fees attached to programs, courses or laboratories. These fees are addressed in the program section of this handbook. Current standard tuition and fees for the School are posted at www.uab.edu/shp/home/admissions-tuition/tuition.

Payment deadlines for each semester are published on the official academic calendar and on the UAB website at www.uab.edu/whentopay/. Please note that failure to meet payment deadlines can result in being administratively withdrawn from courses.

WEATHER

Severe weather situations that may affect the safety of students, faculty, and staff are communicated through the same channels as other emergencies. Severe weather precautions are published at www.uab.edu/emergency/preparedness. Other information sources include:

• Webpage: www.uab.edu/emergency	• B-ALERT system: www.uab.edu/balert
• Hotline: (205)- 934-2165	• WBHM Radio (90.3 FM)

WITHDRAWAL FROM COURSE / PROGRAM

Withdrawal from a course or from your program is an official process and should be discussed with your academic advisor and / or program director. Most programs in the School are full-time and the curricula specifically sequenced. Withdrawal from a course may risk your wait time to register for the class again. You might have to wait for a full year before resuming enrollment in the program. Withdrawals are made through the UAB registration system via the Student Resources tab in BlazerNET. Notice of program withdrawal should be given in writing to the program director. Please refer to the handbook for additional information.

Check the Academic Calendar for deadlines: https://www.uab.edu/students/academics/academic-calendar

SECTION 2 – SHP AND UAB POLICIES

SCHOOL OF HEALTH PROFESSIONS POLICIES

BACKGROUND CHECK AND DRUG SCREEN

www.uab.edu/shp/home/images/PDF/SHP_Background_and_Drug_Screen_Policy05_2012.pdf

GRIEVANCE PROCEDURES FOR VIOLATIONS OF ACADEMIC STANDARDS

www.uab.edu/shp/home/images/PDF/grievance_procedures.pdf

IMPAIRMENT AND SUBSTANCE ABUSE

www.uab.edu/shp/home/images/PDF/shp%20substance%20abuse%20policy.pdf

PLAGIARISM

www.uab.edu/shp/home/images/PDF/Plagiarism_Policy.pdf

Please note that all papers submitted for grading in any SHP program may be reviewed using the online plagiarism monitoring software, Turnitin.com. All documents submitted to Turnitin.com are added to their database of papers used to screen future assignments for plagiarism.

UAB POLICIES

CLASSROOM BEHAVIORS

ATTENDANCE / ABSENCE (UNDERGRADUATE)

http://catalog.uab.edu/undergraduate/progresstowardadegree/#enrollmenttext

HEALTH

AIDS AND HIV INFECTION

www.uab.edu/policies/content/Pages/UAB-HS-POL-0000252.aspx

BODY FLUID EXPOSURE

www.uab.edu/humanresources/home/employeehealth/reportingexposures

IMMUNIZATIONS

www.uab.edu/policies/content/Pages/UAB-AD-POL-0000086.aspx

SUBSTANCE USE/ABUSE

ALCOHOLIC BEVERAGES, USE AND CONSUMPTION

www.uab.edu/policies/content/Pages/UAB-AD-POL-0000071.aspx

DRUG FREE CAMPUS (GENERAL POLICY)

www.uab.edu/policies/content/Pages/UAB--POL-0000046.aspx

Drug-free Campus Policy for Students (Attachments)
Attachment A -www.uab.edu/policies/content/Pages/UAB--GDL-0000632.aspx
Attachment B - www.uab.edu/policies/content/Pages/UAB--GDL-0000626.aspx
Attachment B.1 - www.uab.edu/policies/content/Pages/UAB-AD-GDL-0000627.aspx
Attachment C - www.uab.edu/policies/content/Pages/UAB--GDL-0000628.aspx

NONSMOKING
www.uab.edu/policies/content/Pages/UAB-HS-POL-0000110.aspx

TECHNOLOGY GUIDELINES

COMPUTER AND NETWORK RESOURCES (ACCEPTABLE USE)
www.uab.edu/policies/content/Pages/UAB-IT-POL-0000004.aspx

COMPUTER SOFTWARE COPYING AND USE
www.uab.edu/policies/content/Pages/UAB-IT-POL-0000028.aspx

INCLUSIVENESS

EQUAL OPPORTUNITY AND DISCRIMINATORY HARASSMENT
www.uab.edu/policies/content/Pages/UAB-BT-POL-0000052.aspx

RESEARCH AND SCHOLARLY ACTIVITIES

ETHICAL STANDARDS IN RESEARCH AND OTHER SCHOLARLY ACTIVITIES
www.uab.edu/policies/content/Pages/UAB-RA-POL-0000263.aspx

PATENT (INTELLECTUAL PROPERTY)
www.uab.edu/policies/content/Pages/UAB-RA-POL-0000115.aspx

FIREARMS, AMMUNITION, AND OTHER DANGEROUS WEAPONS
www.uab.edu/policies/content/Pages/UAB-HR-POL-0000257.aspx

Note: Additional university policies may be located by searching the UAB Policies and Procedures Library available online at www.uab.edu/policies/Pages/default.aspx.

SECTION 3 – DEPARTMENTAL POLICIES

DEPARTMENT OF CLINICAL AND DIAGNOSTIC SCIENCES (CDS)

Welcome

The Department of Clinical and Diagnostic Sciences is comprised of academic programs essential to today's healthcare system. Our programs provide training for future health care professionals in a variety of disciplines ranging from the diagnosis of illness and disease, the administration of advanced treatment therapies, and the performance of vital roles in surgical suites and in outpatient and inpatient healthcare settings. Graduates of our programs are well poised for a wide variety of job opportunities due to the outstanding education received at UAB.

About the Department

Comprised of multiple academic programs, the Department of Clinical & Diagnostic Sciences provides training for tomorrow's health care professionals from physician assistants and genetic counselors to nuclear medicine technologists. Students receive hands-on training from renowned faculty while using the tools to prepare them for a career in health care.

CDS Professional Development Program

Professional success after graduation requires many skills beyond the discipline specific technical skills that each student will master during their program. The CDS Professional Development Program is designed to provide students with a strong foundation in a variety of non-technical skills such as interpersonal communication and team based care. The program also provides practical instruction in areas such as professional networking and interviewing to enable students to be successful job candidates upon graduation. Each student will be provided with detailed information about the Professional Development Program activities and assignments.

Accreditation Information

The accrediting agencies for programs offered by the Department include:

Program	Accreditation
Physician Assistant Studies (PAS)	Accreditation Review Committee for Physician Assistant, Inc. (ARC-PA) http://www.arc-pa.org/
Nuclear Medicine Technology (NMT)	Joint Review Committee for Nuclear Medicine Technology (JRCNMT) http://jrcnmt.org/
Clinical Laboratory Sciences (CLS)	National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) http://www.naacls.org/
Genetic Counseling (GC)	Accreditation Council for Genetic Counseling (ACGC) http://www.gceducation.org

CDS POLICIES

ACADEMIC PROGRESS

Academic Progress Review is implemented to promote, assist, and maintain student performance. The main purpose is to provide feedback to students regarding their performance and to identify areas of strength and/or weakness in performance or behavior.

Generally speaking, program faculty, and/or the program director, may academically counsel students on a semester-by-semester basis to assess progress in the curriculum and to provide students counseling regarding deficiencies as needed. These meetings may be documented and the student may be required to sign the documentation of the academic progress sessions with associated notes placed in the student's file.

In cases regarding deficiencies, suggestions and/or action plans may be developed in conjunction with the student so as to provide a plan for reversing the deficiencies by a specified timeframe. Such suggestions and/or action plans will be documented and signed (by both faculty and the student) and will be placed in the student's file. If a student does not comply with the suggestions and/or action plan and/or does not meet the deadlines as specified, the student may be dismissed from the program.

ATTENDANCE AND EXCUSED ABSENCES

CDS Attendance Policy

Attendance is mandatory for all classes, lectures, labs, program-related seminars, clinical practice, internships, etc.

Absences are either excused or unexcused and both require timely notification to the course instructor. Students who are absent during clinical practice or an internship must notify both the program clinical practice coordinator/internship coordinator and the clinical practice instructor/clinical internship instructor as soon as possible. Time missed during clinical practice or the internship must be made up and this may result in a delay in graduation.

Below is a list of excused absences recognized by the Department of Clinical and Diagnostic Sciences and UAB:

- Absences due to jury or military duty, provided that official documentation has been provided to the instructor in a timely manner in advance.
- Absences of students registered with Disabilities Services for disabilities eligible for "a reasonable number of disability-related absences," provided students give their instructors notice of a disability related absence in advance or as soon as possible.
- Absences due to participation in university-sponsored activities when the student is representing the university in an official capacity and as a critical participant, provided that the procedures below have been followed:
    - Before the end of the add/drop period, students must provide their instructor a schedule of anticipated excused absences in or with a letter explaining the nature of the expected absences from the director of the unit or department sponsoring the activity.

    - If a change in the absence schedule occurs, students are responsible for providing their instructors with advance notification from the sponsoring unit or department.
- Absences due to other extenuating circumstances that instructors deem excused. Such classification is at the discretion of the instructor and is predicated upon consistent treatment of all students.
- Absences due to religious observations provided that students give faculty written notice prior to the drop/add deadline of the term.

In instances resulting in unavoidable absence(s), a student is expected to inform the program office and the associated course instructor in advance of the planned absence. For unforeseen events (car accident or breakdown, injury), the student is expected to notify the program and course instructor at the earliest possible time.

Make-up of missed class information or assignments is the student's responsibility. Make-up of class activities and projects is at the discretion of the course faculty – refer to individual course syllabi for more detailed attendance policies pertaining to the course.

*NOTE: The program cannot guarantee that all work missed for an excused absence can be made up. Some activities (including laboratories) due to their complex, time intensive, and/or cost intensive nature will not be able to be made up. Similarly, when students arrive to laboratories late they risk missing important information/directions that may adversely affect their grade. Instructors are not obligated to repeat directions for students when they are tardy.

Attendance Infractions

For each unexcused absence, there will be a 1% overall grade reduction for that course or lab per absence. Two tardies will equal one unexcused absence. A tardy is considered being more than 10 minutes late to class. Faculty may choose to include attendance and timeliness in grading criteria and may implement a more restrictive attendance policy. The attendance policy for each course will be described in all course syllabi. The Department of Clinical and Diagnostic Sciences also reserves the right to institute an attendance policy for official program/department activities.

Consensual Romantic Relationships

http://www.uab.edu/policies/content/Pages/UAB-HR-POL-0000254.aspx

Data Protection and Security

http://www.uab.edu/policies/content/Pages/UAB-IT-POL-0000038.aspx

Dress Code

Guidelines for professional attire require consideration for patients, visitors, and coworkers, as well as personal safety. Therefore, CDS students are expected to promote a professional image by following these guidelines.

Clothing:

- Clothing should be clean, neat, in good repair, and appropriate for the profession.
- Casual or athletic wear, such as sweat suits or warm-up pants, are not acceptable.
- Shorts are not acceptable.
- Skirt length shall be no shorter than two inches above the top of the knee and may not be tight fitting.
- Undergarments shall be worn and shall not be visible, even when in stretching or bending positions.
- Shoes shall be appropriate for the work environment and compliant with professional attire. Flip flops are not appropriate.
- Caps or head coverings are not acceptable unless they are for religious purposes or are part of a uniform.
- Sunshades (or hand-tinted, non-prescription glasses) shall not be worn unless they are required for medical purposes.
- Identification badges shall be worn at all times.

Grooming:

Piercings

- Facial and/or body adornments are not permitted other than in the ear lobe.
- No more than two pairs of earrings may be worn. Earrings will be no longer than one inch in diameter or length.

Hair

- Hair should be clean and neat.
- Hair may not be dyed unnatural colors and/or have patterns.
- Hair ornaments should be moderate and in good taste.
- Hair should be well-groomed, closely trimmed beards, sideburns, and mustaches are allowed.

Daily Hygiene

- Daily hygiene must include clean teeth, hair, clothes, and body, including use of deodorant.

In addition to these basic guidelines, students are expected to follow any additional provisions of a facilities dress code while in clinical practice.

Dress Code Infractions:

Failure to comply with the above dress code requirements will result in removal from program activities until requirements are met. Students will be counted as absent (unexcused) and will receive a grade of zero for any missed work during that time with no opportunity to make-up the missed work.

****Note- The above Dress Code is a minimum standard set forth by the Department of Clinical and Diagnostic Sciences. Each program and/or course within CDS has the liberty to set forth and enforce a stricter dress code. Similarly, clinics also have their own dress codes that must be followed precisely.***

Food and Drink in the Classroom

Food or drinks in laboratories is prohibited. Food and drink in classrooms is allowed at the discretion of faculty.

Grading Policy

In each CDS course, the instructor will announce the grading criteria and publish it in the course syllabus. The following policy relating to the "I" (incomplete) grade or deferred credit supplements the School of Health Professions' policy.

Incomplete & Deferred Credit Policy

The awarding of an "I" (incomplete) grade is not done lightly. An "I" will be given only when an emergency or unexpected event prohibits the student from meeting course objectives in a timely manner. A student receiving a grade of "I" (incomplete) must arrange with the instructor to complete the course requirements as soon as possible, and in order to progress within the program the student must arrange to complete the requirements prior to the final day of registration for the next term. A grade of "I" not changed by the instructor by the beginning of the next regular term will automatically convert to an "F."

Infection Control

Because students are working with patients having low immunities, the clinical supervisor reserves the right to send any student to UAB Student Health Services if the need arises. The clinical supervisor will call UAB Student Health and Wellness and request that the student be sent off duty if he/she has an infection of any kind. The student must then acquire a doctor's written permission to return to clinical education. Students are required to adhere to the policy of the clinical affiliate for working with patients with local infections or infectious diseases. Students are required to inquire about this policy at the beginning of rotation through a clinical affiliate.

Liability Insurance

Liability insurance is provided by the University for all students registered for clinical education courses. The coverage protects students in any assigned clinical site to which they are assigned as a student.

Non-Academic Student Conduct

http://www.uab.edu/2015compliancecertification/IMAGES/SOURCE1F03.PDF?id=415eda97-a4fc-e311-b111-86539cf2d30e

Non-Resident Tuition Policy

http://www.uab.edu/shp/cds/images/PDF/Policies/shpnon-residenttuitionpolicy.pdf

PREGNANCY POLICY

All students are encouraged to inform the program director immediately in writing once pregnancy has been confirmed. If students choose not to inform the program of their pregnancy, the program will not consider them pregnant and cannot exercise options that could protect the fetus.

For students who voluntarily disclose pregnancy the program director will discuss factors to be considered in cases of pregnancy with the student based on acceptable professional guidelines.

A student is offered three alternatives after the consultation with the program director. These are:

1. Immediate withdrawal in good standing from the program. Readmission to the program after the pregnancy will be in accordance with the Readmit Policy.
2. Continuation in the program after being given specific instruction regarding safety practices, safety monitoring, and specific clinical and laboratory assignments.
3. Continuation in the program with additional safety monitoring but without modification of assignments.

The student must be able to progress in her educational experiences, both clinical and academic. If the student cannot, she will be strongly advised to withdraw as in alternative number one.
If there are any questions regarding any aspect of the above statements, please call the Program Director.

TABLE OF CONTENTS

SECTION 4 – PROGRAM INFORMATION

MISSION

The UAB Nuclear Medicine Technology Program is dedicated to providing a quality master's level program by offering didactic and clinical coursework in a curriculum that is designed to prepare students to become competent and productive technologists. The program also serves the profession through its offering of continuing education activities and educational products.

GOALS

1. Provide students with the knowledge and skills necessary to secure employment as an entry-level nuclear medicine technologist.
2. Provide students with the knowledge necessary to pass national certification.
3. Provide health care employers with competent graduates.
4. Offer educational activities and materials to the health care community.
5. Provide help for students with future graduate school request.

FACULTY

Norman E. Bolus, MSPH, MPH, CNMT, FSNMMI –TS
Program Director and Assistant Professor

Department of Clinical & Diagnostic Sciences
1716 9th Avenue South, SHPB 446
Birmingham, AL 35294
(205) 934-3427
bolusn@uab.edu

Norman Bolus is the Program Director and an Assistant Professor for the UAB Master of Science in Nuclear Medicine Technology as well as the Interim-Program Director for the UAB Master of Science in Health Physics. He was in clinical practice for 3 years as a staff nuclear medicine technologist prior to joining the UAB School of Health Professions. He has served in many capacities for the program as lab instructor, teacher, assistant professor and clinical coordinator before assuming the role of program director in 2007. Mr. Bolus received his undergraduate Bachelor of Science degree in Biology/Chemistry in 1988 and a BS degree in Nuclear Medicine Technology in 1989 from UAB. He also obtained a Master in Public Health in Occupational Health and Safety from UAB in 1998 and has an additional Master of Science degree from the UAB School of Public Health in Environmental Toxicology. He is active member of the Society of Nuclear Medicine and Molecular Imaging (SNMMI) and the SNMMI - Technologist Section (SNMMI-TS) and was the Editor-in-Chief of the Journal of Nuclear Medicine Technology from January 2012 through December 2017. He is currently the president-elect of the SNMMI-TS and will assume to the role of president of the SNMMI-TS at the end of June 2018. He is a past president of the Southeastern Chapter of the SNMMI-TS and received The Marshall Brucer Award in October 2017 from the SECSNMMI for distinguished service. He is a two time past president of the Alabama Society of Nuclear Medicine and currently serves as its Associate Treasurer.

Courses Taught: Introduction to Clinical Nuclear Medicine, Patient Care, Instrumentation, Radiation Biology, Radiation Safety, Procedures and Radiopharmacy along with assisting in NMT labs.

Elizabeth Cloyd, BS, R.T.(R)(CT)(MR)
Instructor

Department of Clinical and Diagnostic Sciences
1716 9th Avenue South, SHPB 433
Birmingham, AL 35294
205-975-8835
epcloyd@uab.edu

B.S. (Radiologic Technology) Bluefield State College. CT/MRI Manager for Brookwood Medical Center. Adjunct Instructor for the UAB Nuclear Medicine Technology Program. Areas of instruction include Computed Tomography Procedures, Magnetic Resonance Imaging, and Cross-sectional Anatomy.

Remo George, PhD, ABSNM, CNMT(NMTCB)
Assistant Professor

Department of Clinical and Diagnostic Sciences
1716 9th Avenue South, SHPB 452
Birmingham, AL 35294
205-934-7378
remo@uab.edu

Remo George is an Assistant Professor in the UAB Nuclear Medicine Technology Program. He was in clinical practice for over 10 years in Indiana, Michigan & India prior to joining the school of health professions as a faculty member. He has extensive experience in nuclear medicine procedures, radiopharmaceuticals, instrumentation, and PET applications. He is also a U.S. Nuclear Regulatory Commission approved Medical Radiation Safety Officer.

Mr. George received his undergraduate Bachelor of Science degree in Biological sciences (Zoology, Botany & Biochemistry) (1994) and his Master of Science degree in Biophysics (1996), both from Mahatma Gandhi University, India. Thereafter, he went on to obtain his post baccalaureate diploma in Nuclear Medicine Technology from the Radiation Medicine Center at the Bhaba Atomic Research Center, University of Mumbai, India (1998). He is also concurrently working towards a PhD in Biochemistry & Molecular Genetics at the University of Alabama at Birmingham. His research interest is in the use of antisense molecular beacons for the detection and attenuation of latent mycobacteria.

Courses taught: Nuclear Medicine Instrumentation I, Nuclear Medicine Instrumentation II, Nuclear Medicine Procedures I, Nuclear Medicine Procedures II, Radiation Protection & Biology, Regulatory Issues

Krystle W. Glasgow, MIS, CNMT, NMTCB(CT), NMAA
Instructor, Clinical Coordinator

Department of Clinical and Diagnostic Sciences
1716 9th Avenue South, SHPB 143A
Birmingham, AL 35294
205-996-6597
krystlew@uab.edu

Krystle Glasgow is the clinical coordinator for the UAB Nuclear Medicine Technology Program. She was in clinical practice for 5 years prior to joining the School of Health Professions. Mrs. Glasgow received her undergraduate Bachelor of Science degree in Nuclear Medicine Technology with a concentration in Computed Tomography in 2010 from UAB. She obtained a Master of Imaging Science at The University of Arkansas for Medical Science in Little Rock Arkansas. She is a certified Nuclear Medicine Technologist and also a Certified Nuclear Medicine Advanced Associate (NMAA). She is an active and contributing member of the Alabama Society of Nuclear Medicine and the Society of Nuclear Medicine and Molecular Imaging.

Courses taught: Clinical Practice I, Clinical Practice II, Clinical Practice III, Patient Care, Instrumentation Lab, Procedures II, Applications of Radiation Protection and Biology, Radiochemistry and Radiopharmacy Lab

Muhammad Maqbool, PhD, MS, MSc
Associate Professor

Department of Clinical and Diagnostic Sciences
1716 9th Avenue South, SHPB 450
Birmingham, AL 35294
205-934-7637
mmaqbool@uab.edu

Muhammad Maqbool is an Associate Professor for the Health Physics Program. Prior to joining UAB in 2017, he worked as an Associate Professor of Physics at Ball State University, Indiana for 9 years. His first degree came from the University of Peshawar, Pakistan, in 1994. In 1998, he received his MS degree in Medical & Radiation Physics from the University of Birmingham, UK and his PhD degree in Physics from Ohio University, USA, in 2005. Dr. Maqbool has published over 5 dozen peer-reviewed research paper and book chapters in the areas of Condensed Matter Physics, Photonics, Health Physics and Biophotonics. In 2016, he was awarded a US Patent for his invention of a Titanium infrared microlaser on optical fiber. He serves on the editorial board of journals Nanoscale Research Letters and Global Journal of Advanced Radiation Research. He is a member of various professional organizations, including Health Physics Society, American Physical Society, Materials Research Society and Indiana Academy of Science.

Courses taught: Principles of Health Physics, Physics of Diagnostic Imaging, Principles of Dosimetry, Nonionizing Radiation, Advanced Radiation Biology, and Non-Thesis Research

Liliana Navarrete, MS
Assistant Professor

Department of Clinical and Diagnostic Sciences
1716 9th Avenue South, SHPB 450
Birmingham, AL 35294
205-934-4168
lilinav@uab.edu

Liliana Navarrete is an assistant professor for the UAB Nuclear Medicine Technology program. She held various teaching and research positions in the higher education sector for over 10 years prior to joining the UAB faculty in 2008. Ms. Navarrete received her B.S. degree in physics from National University of Colombia, Bogota Colombia in 1994. She received M.S. degrees in physics from Kyushu University, Fukuoka Japan in 1998, and from the University of Alabama, Tuscaloosa, Alabama in 2006. She is a member of the American Physics Society and the Health Physics Society.

Courses taught: Physics for Technologist, Medical Radiation Physics, Instrumentation, Physics and Instruments of Nuclear Magnetic Resonance, Survival Spanish for Health Professions, and assists with Instrumentation Lab, Applications of Radiation Protection and Biology, and a Physics Review module for the UAB Nurse Anesthesia program.

Administrative Staff

The Department of Clinical & Diagnostic Sciences has a centralized staff team that supports all CDS programs. For student questions, please contact the CDS Receptionist:

(205) 975-4CDS (4237)
ASKCDS@uab.edu

ADVISORY BOARD

Baptist Medical Center-Princeton
James Nance, CNMT
701 Princeton Avenue SW, Birmingham, AL 35211

Birmingham VA Medical Center
Denois Lockett, RT(N)
700 19th Street South, Birmingham, AL 35233

Brookwood Diagnostic Cardiology Center
Cassandra Fuqua
3980 Colonnade Parkway, Birmingham, AL 35243

Brookwood Medical Center
Jennifer Potts, CNMT, BS
2010 Brookwood Medical Center Drive, Birmingham, AL 35209

Cardinal Health
James E. Underwood, BS, RPh
1218 3rd Avenue South, Birmingham, AL 35233

Cardiology P.C.
Susan Hunt, CNMT
Professional Bldg, 701 Princeton Avenue SW, Birmingham, AL 35211

Children's Hospital of Alabama
Sharon Jordan, CNMT
1600 7th Avenue South, Birmingham, AL 35233

Cullman Regional Medical Center
Carmen Brown, RT(R), CNMT
PO Box 1108, 1912 AL HWY 157, Cullman, AL 35055

Decatur Morgan HH Hospital
Melissa Shryock, CNMT
1201 7th Street SE, Decatur, AL 35609

Grandview Medical Center
Richard Croom, RT(R), CNMT
3690 Grandview Parkway, Birmingham, AL 35243

Heart South Cardiovascular Group, PC
Sylvester Atkinson, CNMT
1022 First Street North, Ste. 500, Alabaster, AL 35007

ImageSouth PET Center
Brittney Gray, CNMT
1 Independence Plaza, Suite 140 Homewood, AL 35209

Medical West
Tiffany Jennings, CNMT
US Highway 11 South, Bessemer, AL 35020

Shelby Baptist Medical Center
Lisa Moody, RT(R), CNMT)
US Highway 31, Alabaster, AL 35007

St. Vincent's PET, LLC
Robert Wynn, CNMT
2728 10th Avenue South, Suite 300, Birmingham, AL 35205

St. Vincent's East
Crystal J. Garrett, CNMT
50 Medical Park Drive East, Birmingham, AL 35235

The Kirklin Clinic Cardiology Center
Ashley Russell, CNMT
2006 6th Avenue South, Birmingham, AL 35233

UAB Advanced Imaging Center
Marc Coleman, CNMT, RT(N)
2000 6th Avenue South, Birmingham, AL 35233

University of Alabama Hospital
David Kynard, CNMT
619 20th Street South, Birmingham, AL 35233

Walker Baptist Medical Center
Brett Black, CNMT
US Highway 78, PO Box 3547, Jasper, AL 35502

Walker Medical Diagnostics, LLC
Jackie Lee, RT, CNMT
1450 Jones Dairy Road, Jasper, AL 35501

NMT Clinical Sites

Clinical education is a major component of the nuclear medicine technology professional phase program. This allows the student to get first hand and hands on experience in the clinical setting which allows the students to get real world practical experience as part of their overall education. This enables the student to become an entry level technologist by the time of graduation through completing documented clinical competencies and experiences.
The following Alabama facilities serve as clinical practice sites:

Baptist Medical Center Princeton, Birmingham
Brookwood Diagnostic Cardiology Center, Birmingham
Brookwood Medical Center, Homewood
Cardinal Health Nuclear Pharmacy, Birmingham
Cardiology P.C., Birmingham
Children's Hospital, Birmingham
Cullman Medical Center, Cullman
Decatur Morgan HH Hospital, Decatur
Dept. of Veterans Affairs Medical Center, Birmingham
Grandview Medical Center, Birmingham
Heart South Cardiovascular, PC, Alabaster
Image South PET Center, Homewood
Shelby Baptist Medical Center, Alabaster
St. Vincent's East, Birmingham
St. Vincent's PET, LLC, Birmingham
The Kirklin Clinic – Cardiology, Birmingham
UAB Advanced Imaging Center, Birmingham
UAB Hospital, Birmingham
UAB Medical West, Bessemer
Walker Baptist Medical Center, Jasper
Walker Medical Diagnostics, LLC, Jasper

UAB Kirklin Clinic

PROFESSIONAL PHASE CURRICULUM

Prerequisite Courses (40 hours)

- Pre-calculus Trigonometry
- Introductory Chemistry I & II
- Pathophysiology
- Human Anatomy and Physiology
- First Aid and BLS CPR
- Statistics
- College Physics I & II
- Medical Terminology
- Health Care Systems

Course Number/Title	
First Year - Fall 2018	
NMT 602 Intro to Clinical Nuclear Medicine, Patient Care & Communication Skills	3
NMT 610 Medical Radiation Physics & Lab	4
NMT 621 Nuclear Medicine Instrumentation I & Lab	4
NMT 631 Nuclear Medicine Anatomy and Physiology – Procedures I	4
CDS 501 Professional Skills I	0
CDS 610 Research Design & Stats	3
Total	**18**
First Year – Spring 2018	
NMT 632 Nuclear Medicine Anatomy & Physiology – Procedures II	4
NMT 461 Regulations, Radiation Protection/Biology & Lab	4
NMT 691 Clinical Practice I	3
CDS 502 Professional Skills II	0
CDS 625 Analysis of Scientific Publication	3
Total	**14**
First Year – Summer 2018	
NMT 602 Cross-Sectional Anatomy	3
NMT 622 Nuclear medicine Instrumentation II	3
NMT 623 Computed Tomography	3
NMT 692 Clinical Practice II	5
HA 650 Management and Leadership Skills for Clinical Professionals	3
CDS 503 Professional Skills III	1
Total	**18**
Second Year – Fall 2019	
NMT 660 Radiopharmacy, Pharmacology & Lab	3
NMT 693 Clinical Practice III	7
NMT 698 Non-Thesis Research	4
Total	**14**
Total Hours for Professional Phase Program	***64***

Students may choose from two concentrations: Computed Tomography (CT) or Magnetic Resonance Imaging (MRI). Courses for each concentration will begin in the summer term of the first year of the professional phase of the NMT curriculum.

CT Concentration Courses

SECOND YEAR

Summer

NMT 605 Cross-sectional Anatomy	(3) – Program Course
NMT 623 Computed Tomography	(3) – Program Course

Fall

NMT 633 Computed Tomography Procedures	(3) – Elective

Spring

NMT 694 Computed Tomography Clinical Practice	(10) – Elective

MRI Concentration Courses

FIRST YEAR

Spring

NMT 624 MRI Physics and Instrumentation	(3) – Elective

Summer

NMT 601 Introduction to MRI Clinic	(2) – Elective
NMT 605 Cross-sectional Anatomy	(3) – Program Course

SECOND YEAR

Fall

NMT 634 MRI Scanning & Sequence Optimization	(3) – Elective

Spring

NMT 695 MRI Clinical Practice	(12) – Elective

STUDENT RESPONSIBILITIES

- Maintain academic integrity by refraining from cheating. Incidents of cheating among others should be reported if and when it is witnessed.
- Check email on a daily basis.
- Turn off all cell phones and/or beepers prior to beginning class.
- Report to all class meetings on time.
- Bring all course materials to class.
- Assist in maintaining a constructive classroom environment by refraining from inappropriate disruptions or outbursts. Respectful behavior toward instructors, classmates, and guests is expected.
- It is recommended that you join the Society of Nuclear Medicine & Molecular Imaging as a student member.
- It is recommended that you join the Alabama Nuclear Medicine Society as a student member.
- Have access to a computer with MS Office software for participation in on-line work (software available at UAB bookstore at reduced cost to students.)
- Refer to the Student Policies and Procedures Handbook when in need of program, clinical and or didactic policy information. Failure to meet student responsibilities may lead to counseling, reprimand and/or probation.

Due to the fact that graphing calculators are not allowed to be used on the Nuclear Medicine Technology Certification Board exam, they are not allowed for use in classes within the NMT program. A non-graphing scientific calculator can be used.

PROGRAM GRADING POLICIES

1. The following grading scale is utilized in all nuclear medicine technology courses with the prefix NMT. It is to be pointed out that this is based on an 8 point scale rather than a 10 point scale. Also, board exams require a 75 or better to pass.

   A = 92 – 100, B = 84 – 91, C = 75 – 83, F = < 75

2. A current student who receives a grade less than 75 in any required course while admitted to the nuclear medicine technology program will be dismissed from the program unless there are mediating circumstances. These circumstances must be extreme in order to be considered.

   In the case of extreme circumstances, the student will be suspended from the program rather than expelled, and must wait until the next time the course in which the failing grade was made is offered again. The student will then be allowed to take the course again. Under the recommendation of the program director, the student may be required to take remedial courses prior to repeating a nuclear medicine technology course. If the student passes the course, then the student may petition the program director for re-entry into the program. If the class size warrants, the student MAY be allowed to re-enter the program at the discretion of the program director. Re-entry into the Nuclear Medicine Technology program is NOT guaranteed. If the

student takes the course again and still fails to make a 75 or greater, the student will be expelled from the program. The student may reapply to the program, and must complete the full application process again and enter the program as a new student. Entry into the program is still not guaranteed, but will be on a competitive basis with the other applicants.

3. Cheating: If a student is caught and proven to be cheating, the student is in violation of the UAB Honor Code (found on the Home Page under Course Information) and will be subject to the UAB policies on Academic Misconduct. At the least, the student will receive a zero for the exam or assigned work and will be put on Academic Probation (see Program Policies and Procedures on Academic Misconduct/Probation). If placed on Academic Probation, a second infraction OF ANY KIND will result in dismissal from the program.

4. Plagiarism: All papers and assignments must be the original work of that student, or have the work of another in quotation marks with proper reference notations immediately following the direct quote. If a student is proven to have plagiarized another individual's work, claiming that work as his or her own, the student is in violation of the UAB Honor Code (found on the Home Page under Course Information) and will be subject to the UAB policies on Academic Misconduct.

TEXTBOOK LIST

2018-2019

The following books must be purchased for use during participation in the program. This list is subject to change. Students are required to use the i>clicker software for all of the following courses.

FALL

NMT 602
Intro to Radiography & Patient Care, 6th Edition
Adler & Carlton
Saunders
978-1437716467

NMT 610
Medical Imaging Physics
Hendee and Ritenour
Wiley-Liss 4th Edition, 2002
9780471382263

NMT 621
Physics in Nuclear Medicine, 4th Edition
Sorenson, Phelps, and Cherry
9781416051985

NMT 621
Nuclear Medicine and PET/CT Technology and Techniques, 7th Edition
9780323071925

NMT 621/NMT 622
Nuclear Medicine Instrumentation, 2nd Edition
Prekeges, Jennifer
9780763766382 (Provided by program- on loan)

NMT 621/622 & NMT 631/632
Nuclear Medicine and PET/CT Technology and Techniques, 8th Edition
Waterstaram-Rich and Gilmore
Mosby-Elsevier
9780323356220

NMT 631 & NMT 632
Nuclear Medicine Technology Procedures and Quick Reference
Pete Shackett
Lippincott, Williams & Wilkins
9780781774505

SPRING

NMT 622/NMT 632
Nuclear Cardiology Technology, 2nd Edition
Johnson, Etal
Society of Nuclear Medicine & Molecular Imaging
(Provided by program-on loan)

NMT 632
Quick and Accurate 12-lead ECG Interpretation, 4th Edition, Dale Davis
Lippincott Williams & Wilkins
9781582553795

NMT 641
Essentials of Radiation Biology and Protection, 2nd Edition
Forshier, S., Delmar
Thompson Learning, 2002
978142812173

NMT 641
Radiation Protection in the Health Sciences (with problem solutions manual), 2nd Edition
Noz and Maguire
World Scientific
9789812705976

NMT 641
Guide for Diagnostic Nuclear Medicine and Radiopharmaceutical Therapy
Jeffery A. Siegel
Society of Nuclear Medicine
9780972647823

SUMMER

NMT 605
Sectional Anatomy for Imaging Professionals, 2nd Edition (or newest edition)
Lorrie L. Kelly and Connie M. Petersen
Mosby
0323020038

NMT 605 (Recommended)
Workbook of Sectional Anatomy for Imaging Professionals, 2nd Edition (or newest edition)
Lorrie L. Kelly and Connie M. Petersen
Mosby
0323020046

NMT 622 (See NMT 621)
Nuclear Medicine and PET/CT Technology and Techniques, 7th Edition
9780323071925

NMT 623
Computed Tomography: Physical Principles, Clinical Applications and Quality Control, 3rd Edition
Euclid Seeram, W. B. Saunders
9781416028956

SECOND YEAR FALL

NMT 660
Fundamentals of Nuclear Pharmacy, 6th Edition
Gopal B. Saha
Springer-Verlag New York, Inc.
9781441958594

NMT 698
Review of Nuclear Medicine Technology, 5th Edition
(Provided by program- on loan)

UAB AND PROGRAM ASSESSMENTS AND EVALUATIONS

The student is requested to do several types of assessments throughout their participation within the program. A list of those assessments and a brief explanation are below.

By completing the evaluations of the program, the program can identify areas in need of improvement or enhancement in order to better meet the educational needs of the student.

1. Course / Instructor Evaluation
    - This is done by the student electronically at the completion of each course at the end of each semester.
    - While the student is not required to do the evaluation, the information is vital for the instructor to use to improve the course.
    - The evaluations are anonymous.

2. Student End-of-Term Evaluation
    - This is done at the end of each semester the student is enrolled in the clinic.
    - The student is requested to submit a self-assessment of how they perceived their performance was in clinic for that semester.
    - If necessary, a meeting with the student and the program director will be arranged to work out any identified problem areas.

3. Exit Interview
    - This is done at the end of the last semester of the program.
    - The student is requested to do an evaluation of the program's strengths and weaknesses as perceived by the student.
    - The evaluation is anonymous.

Nuclear Medicine Technology Certification Board – UAB NMT Program Results

First Time Taking the Exam Upon Completion of UAB NMT Program Results:

Year	UAB NMT Program	National Average for Equivalent Program Graduates	Overall National Average for All Examinees
2017	100 %	N/A	N/A
2016	82.4%	88.9%	83.15%
2015	92.3%	90.99%	86.76%
2014	89%	89.6%	87.6%
2013	100%	90.78%	89.90%
2012	92.80%	92.40%	88.20%
2011	94.4%	92.5%	91.4%

ACCREDITATION

Accreditation: The NMT program is accredited by:
The Joint Review Committee on Educational Programs in Nuclear Medicine Technology (JRCNMT).

JRCNMT
2000 W. Danforth Road
Suite 130, #203
Edmond, OK 73003
Phone: 405.285.0546
Fax: 405.285.0579
jrcnmt@coxinet.net
www.jrcnmt.org

"The Master of Science in Nuclear Medicine Technology degree program is designed to lead to a professional certification. T*here are two national professional board exams, one through the Nuclear Medicine Technology Certification Board (NMTCB) and the other with The American Registry of Radiologic Technologists (ARRT), resulting in a credential of CNMT or RT(N) respectively. In addition, students may elect to pursue elective coursework that can lead to secondary-post primary certification in Computed Tomography (CT) and/or Magnetic Resonance Imaging (MRI). CT certification is either through the NMTCB which results in a credential of NMTCB (CT) or through the ARRT with a credential of RT(CT). MRI certification is through the ARRT resulting in a credential of RT(MR). Specific licensure requirements for each modality still vary from state to state.* UAB is working to develop an online, publicly-accessible database to assist in providing this state-by-state information. In the meantime, if you are interested in learning about potential professional licensure requirements in your state for a specific degree program, please contact UAB State Authorization at stateauth@uab.edu, or call Dr. Lisa Reburn at (205) 934-3258."

Credentials Conferred: Post Baccalaureate degree and a certificate of completion are awarded by the University of Alabama at Birmingham

Board Certification: Graduates of the program are eligible to apply for the certification examination offered by both the Nuclear Medicine Technology Certification Board (NMTCB) or the American Registry of Radiological Technologists (ARRT)

Nuclear Medicine Technology Certification Board
3558 Habersham at Northlake
Building I
Tucker, GA 30084
http://www.nmtcb.org/root/default.php

Phone: (404) 315-1739
Toll Free: (800) 659-3953
Fax: (404) 315-6502
E-mail: board@nmtcb.org

ARRT
1255 Northland Drive
St. Paul, MN 55120
https://www.arrt.org/

Phone: (651) 687-0048
Fax: (651) 681-3299

Student Seizure Protocol

1. If a student has a seizure and comes out of the seizure physically unharmed and appears to be fine after the event:
   - Do not call 911.
   - Do not write up an incident report.
   - Make sure the student is ok.

2. If a student has a seizure and is physically harmed but seems fine otherwise (i.e. a fall occurs, the student bumps their head etc.):
   - Write up the incident as a "not a medical emergency" incident (see item 5 on the attached incident reporting policy).
   - Notify the program director immediately: (205) 934-3427 or (205) 975-4237
   - Transport the student to student health (1714 Ninth Avenue South) with a medical authorization form. This may be done by faculty or staff.

3. If the student has a seizure and is unresponsive or alert but not coherent:
   - Call 911.
   - Write up the incident as a "major medical injury" (See item one on the attached incident reporting policy).
   - Accompany the student to the ER to present the completed medical authorization form. This may be done by faculty or staff.
   - Notify the program director immediately.

If this were to occur a medical authorization form and incident report form would need to be completed.

Closing Notifications

Your safety should always take precedence to official closings. To find out if class cancellation occurs due to bad weather (snow and ice) on an assigned class day use the following official sources:

UAB radio station WBHM 90.3

The UAB Web site at www.uab.edu

BlazerNet at www.uab.edu/blazernet

B-Alert System https://www.uab.edu/emergency/communications-and-information-management/uab-b-alert

The UAB inclement Weather Hotline at (205) 934-2165

NMT Code of Ethics

Nuclear Medicine Technologists must strive as individuals and as a group to maintain the highest of ethical standards.

The Principles (SNMMI-TS Code of Ethics) listed below are not laws, but standards of conduct to be used as ethical guidelines by nuclear medical technologists. These Principles were adopted by the Technologist Section and the Society of Nuclear Medicine and Molecular Imaging at the 2004 Annual Meeting. They are standards of conduct to be used as a quick guide by nuclear medicine technologists.

Principle 1: The Nuclear Medicine Technologist will provide services with compassion and respect for the dignity of the individual and with the intent to provide the highest quality of patient care.

Principle 2: The Nuclear Medicine Technologist will provide care without discrimination regarding the nature of the illness or disease, gender, race, religion, sexual preference or socioeconomic status of the patient.

Principle 3: The Nuclear Medicine Technologist will maintain strict patient confidentiality in accordance with state and federal regulations.

Principle 4: The Nuclear Medicine Technologist will comply with the laws, regulations, and policies governing the practice of nuclear medicine.

Principle 5: The Nuclear Medicine Technologist will continually strive to improve their knowledge and technical skills.

Principle 6: The Nuclear Medicine Technologist will not engage in fraud, deception, or criminal activities.

Principle 7: The Nuclear Medicine Technologist will be an advocate for their profession.

NMT Program Drug Testing Policy

In addition to the SHP Drug Testing Policy, the NMT program reserves the right to test any NMT student, with cause, at any time while they are enrolled in the program under the direction of either the Program Director or Clinical Coordinator.

ESSENTIAL REQUIREMENTS

The following skills are needed by applicants to the Nuclear Medicine Technology Program. Applicants and students should possess these abilities, or with the help of compensatory techniques and/or assistive devices, be able to demonstrate the ability to become proficient.

Manual dexterity: Use of extremities for patient care purposes

wrists (both)	grasping	pulling	twisting
hands (both)	fingering	holding	(rotation)
arms (both)	pushing	extending	cutting

Sensation: palpation auscultation percussion
capable of hearing voices of normal range in the presence of background noise

Visual Perception: depth acuity (corrected to 20/40)
ability to distinguish shades of gray/color

Physical strength: to support another person
to position another person
to transfer/ambulate with walker, cane, crutches, bed, wheelchair
to stand for long periods of time
to perform CPR; resuscitation
to walk at a rapid pace for eight hours
to lift 10-15 pounds

Ability to operate and maintain equipment (e.g., nuclear medicine instrumentation, ventilator, electronic monitor, etc.)

Interpersonal skills: able to function (consult, negotiate, share) as part of a team
able to use oral communication skills
able to respond to others' requests
willing to accept direction and supervision

Perform duties while under stress.

STUDENT AWARDS & SCHOLARSHIPS

Scholarships

Once the student is admitted to the Nuclear Medicine Technology Program, the student becomes eligible to apply for specific scholarships offered by the School of Health Professions as well as scholarships offered through the Society of Nuclear Medicine & Molecular Imaging (SNMMI), and the Alabama Society of Nuclear Medicine (ASNM).

Society of Nuclear Medicine & Molecular Imaging (SNMMI)

The Society of Nuclear has various student and professional scholarships available. Applications can be found on the SNM website: http://www.snmmi.org/. To apply the student must be a member of the SNM. There are student memberships available.

Alabama Society of Nuclear Medicine (ASNM)

The Alabama Society of Nuclear Medicine also has various student and professional scholarships available. Applications can be found on the ASNM website: www.alabamanucmed.org. To apply the student must be a member of the ASNM.

Michael Thompson Scholarship Fund

Professor Emeritus Michael Alford Thompson, Professor of Medical Physics for 27 years at the University of Alabama at Birmingham (UAB) School of Health Professions, suddenly and unexpectedly passed away on January 2, 2009 at the age of 59. He retired in 2007 from the faculty of the UAB Nuclear Medicine Technology Program after suffering with Parkinson's disease for 7 years. His 30 year career at UAB began in 1977 as a Radiation Safety Monitor in the Occupational Health Safety Office. He transferred to the School of Health Professions in April of 1980 and began utilizing teaching experience he obtained at Francis Marion College in Florence, South Carolina, where he taught Physics and Mathematics from 1974-1977. In May 1986, just six short years after joining the faculty, he was honored with the School of Health Professions highest faculty award, the Joseph F. Volker Outstanding Faculty Award. He received the President's Excellence in Teaching Award in May of 1993 and twice (1995 and 1997) was a finalist for the highest faculty award given by UAB, The Ellen Gregg Ingalls / UAB National Alumni Award.

These faculty awards are a testament to Michael Thompson's reputation as an outstanding educator. Numerous former students were led to the field of Health Physics through Professor Thompson's efforts. He continuously promoted the field and would personally hand out application forms to students he thought had any interest in health physics. As a long-time member he would sign off on the applications and personally mail them into the society. Many former students went on from the UAB NMT Program to pursue a Health Physics degree at Georgia Tech with recommendations provided by Professor Thompson.

In addition to being an outstanding educator for the School of Health Professions and promoter of the field of health physics, Professor Thompson created and marketed many educational materials through the years. His Principles of Radiation Protection Video Series has been sold internationally. His most recent undertaking has been educational PowerPoint CD packages which have included topics on nuclear instrumentation, radiologic physics, radioactive decay

processes, and radiation protection. In 1994, he led the effort for publication of a text book for radiography entitled “Principles of Imaging Science and Protection” from the W.B. Saunders Company.

Professor Emeritus Michael Thompson was beloved by the many students he taught over his 30 year career and will be remembered for being a kind, gentle, and generous person who gave all he could to his students to help them in the learning process. Being a talented educator and a dedicated professor devoted to life-long learning, he will be greatly missed by all who were fortunate enough to be his students.

In an effort to honor the contributions Professor Thompson made during his career at UAB, the NMT Program will establish a student scholarship in his name as a lasting remembrance of Professor Emeritus Michael Thompson.

M. May Williams memorial Scholarship

M. May Williams was the first program director of the UAB Radiography program. Upon her passing, a memorial scholarship was named in her honor. This scholarship is used for the CT and MRI concentrations associated with the NMT program. Eligible students will be notified of the application process in the clinical term associated with the concentrations.

CLINICAL EDUCATION MANUAL
NUCLEAR MEDICINE TECHNOLOGY PROGRAM
&
COMPUTED TOMOGRAPHY/MAGNETIC RESONANCE CONCENTRATIONS

STUDENT TECHNOLOGIST RESPONSIBILITIES

1. Incorporate oneself into the individual department routine. Starting times, coffee breaks and lunch periods are scheduled according to scheduling, staffing needs and constraints, and the educational needs of the student.
2. Consistently attend all scheduled experiences on time. If absence or lateness is unavoidable, both the clinical instructor and the NMT office (975-4237) or (934-3427) must be contacted within 30 minutes of the scheduled starting time. (Names and telephone numbers of clinical instructors appear on pages 58-62.)
   The supervising technologist at each clinical site will set the starting time for the individual student. The starting time may change during the clinical rotation to afford the student certain clinical experiences. The student must be present in clinic for 8 hours each day, excluding lunch and coffee breaks.
3. Wear nametags and personal dosimetry monitoring devices provided.
4. Wear clinical attire as required by the participating institution. If none is required, appropriate professional attire is still expected. (See CDS Dept. Dress Code page 31 and Clinic Dress Code page 65)
5. Wear disposable gloves when handling radioactive materials.
6. Observe standard precautions when handling patients or patient specimens.
7. Demonstrate professional behavior at all times by:
   a. Refraining from criticizing and/or comparing hospitals, technologists or other students.
   b. Refraining from any discussion concerning the patient with colleagues in patient areas and/or in any way, which is not pertinent or relevant to the procedure or patient care.
   c. Taking care with any words spoken within the patient's hearing range.
   d. Refraining from extraneous or boisterous conversation while any procedure is in progress.
   e. Avoiding the display of emotional reactions (distaste, disgust, surprise) in the presence of patients.
   f. Displaying concern, patience and interest in the patient.
   g. Maintaining confidentiality of patient records and/or any information offered by the patient.
   h. Refraining from discussing one patient with another.
   i. Refrain from using cell phones during assigned clinical times. (See Cellular Phone & Electronic Devices Policy page 67)
8. Work under the supervision of a nuclear medicine technologist or other trained personnel.
9. Demonstrate professional judgment and responsibility by:
   a. Observing the rules and regulations of the department.
   b. Working in an orderly fashion with the assigned clinical instructor.
   c. Considering consequences before acting.
   d. Recognizing which decisions require approval.
   e. Recognizing own limitations and responsibilities in the work situation.
   f. Adjusting the pace to situation requirements.
10. Assume some responsibility for one's own learning by:
    a. Utilizing all available resources (e.g., books, journals, charts, health team personnel).
    b. Using unstructured time wisely.
    c. Functioning without prodding.

d. Showing interest by asking questions and seeking new learning experiences.
e. Accepting constructive criticism gracefully.
f. Evaluating one's own performance and checking those perceptions with instructors.

11. Maintain a clinical journal and enter into it a daily report of clinical experiences.
    Program faculty will review students' journals during each clinic visit to ascertain that students are receiving a comprehensive clinical experience and are participating at a level commensurate with their clinical experience.
12. Adhere to the policies and procedures described in this handbook. (See Failure to Follow Policies/Procedures, page 69)
13. Evaluate the clinical experience received at a particular site at the conclusion of each rotation. (See Student Evaluation of Clinical Experience, page 70)

NUCLEAR MEDICINE TECHNOLOGY PROGRAM CLINICAL AFFILIATES

1. **Baptist Medical Center-Princeton**
   Nuclear Medicine Department
   701 Princeton Avenue SW
   Birmingham, AL 35211 **(205) 783-3020**
   *James Nance, MSRS, CNMT
   Nicholas Hatfield, CNMT
   Sharon Berry, CNMT
   Donna Barber, CNMT
   Sara Mayo, CNMT
   Kelly Archer, CNMT

2. **Brookwood Cardiology Diagnostic Center**
   3980 Colonnade Parkway
   Birmingham, AL. 35243 **(205) 795-5033**
   *Cassandra Fuqua, CNMT, NCT
   Dwana Yancey, CNMT, NCT
   Lisa Wilson, RN
   Nikki Ardendale, RN
   Aleshka Kerley, CNMT
   Stephany Moore, CNMT, NCT
   Regan Grimm, CNMT
   Tamara Mayhall, RN
   Tonya West, RN
   Hannah Martin, CNMT
   Nicky Haddox, CNMT

3. **Brookwood Medical Center**
   Nuclear Medicine Department
   2010 Brookwood Medical Center Drive
   Birmingham, AL 35209 **(205) 877-1354**
   *Jennifer Potts, CNMT
   Elizabeth Kritzberger, CNMT
   Ted Hodnett, CNMT, ARRT
   Jazmine Sharpe, CNMT

La'Quita Clayton, CNMT

4. **Cardinal Health Nuclear Pharmacy Services**
1218 Third Avenue South
Birmingham, AL 35233 (**205) 324-3673**
*James Underwood, PharmD
Kevin Ryan, PharmD

5. **Cardiology PC**
Professional Building,
701 Princeton Avenue SW
Birmingham, AL 35211 **(205) 786-8733**
*Sue Hunt, CNMT, R.T.(R)(N)(ARRT)
Jay Roberson, CNMT
Larry Hyche, CNMT
Phillip Russell, CNMT
Nick Munkachy, CNMT
Stephanie Doran, CNMT

6. **Children's Hospital**
Nuclear Medicine
1600 7th Avenue South
Birmingham, AL 35233 **(205) 939-9667**
*Sharon Jordan, CNMT
Tonya Veitch, CNMT
Evelyn Meza, CNMT
Chasity Townley, CNMT

7. **Cullman Medical Center**
Nuclear Medicine
1912 AL Hwy 157
Cullman, AL 35055 **(256) 737-2799**
*Carmen Brown, RT, CNMT
Katy Tilley, ARDMS
Jennifer Copeland, RT, ARDMS, CNMT
Cindy Gray, RT, ARDMS, CNMT
Ashley Sisk, RT(CT)ARRT, CNMT

8. **Grandview Medical Center**
Nuclear Medicine Department
3690 Grandview Parkway
Birmingham, AL 35243 **(205) 971-5219**
*Richard Croom, CNMT, RT
Lena Abdoli, CNMT

9. **HH Decatur Morgan Hospital**
1201 7th St. S.E
P.O. Box 2236
Decatur, AL 35609 **(256) 341-2545**
Melissa Shryock, CNMT
Barbara Moore, CNMT
Cindy Conway, CNMT
Sonya Hines, CNMT
*Halie Stephenson, CNMT

10. **Heart South Cardiovascular Group, PC**
1022 1st Street North Suite 500
Alabaster, AL 35007 **(205) 739-2043**
* Sylvester Atkinson, CNMT
Loukisha Collins, CNMT
Aleshka Kerley, CNMT
Mary Meechum, CNMT
Amy Petersen, CNMT
Kennedy Harrison, CNMT
Kavaljit Mann, CNMT

11. **The Kirklin Clinic, Cardiology Center**
2000 6th Avenue South
Birmingham, AL 35233 **(205) 731-9380**
*Ashley Russell, CNMT
Roslyn Sherrod, CNMT
Nathan Nichols, CNMT
Frances Beth Baker, CNMT
Theresa Diane Guarino, CNMT
David Kynard, CNMT

12. **St. Vincent's East**
Nuclear Medicine Department
50 Medical Park Drive East
Birmingham, AL 35235 **(205) 838-3435**
*Crystal Garrett, CNMT
Matt Patterson, CNMT, RT
Leigh Ann Burns, CNMT
Cody Sweatman, CNMT
Laura Daily, RN

13. **St. Vincent's PET, LLC**
2728 10th Avenue South, Suite 300
Birmingham, AL 35205 **(205) 930-2670**
*Robert Wynn, BS, CNMT
Andrew Parmer, RT, CNMT
Evan Crisp, CNMT

14. **Image South PET Center**
1 Independence Plaza, Suite 140
Homewood, AL 35209 **(205) 870-1979**
*Brittney Gray, CNMT

15. **Shelby Baptist Medical Center**
Nuclear Medicine
U. S. Highway 31
Alabaster, AL 35007 **(205) 620-8602**
* Lisa Moody, RT(R), CNMT
Diane Guarino, RT(N)
Brenda Washburn, RT(R), CNMT

16. **UAB Advanced Imaging Center**
PET Center, 2000 6th Avenue South
Birmingham, AL 35233 **(205) 801-7561**
*Marc Coleman, CNMT
Kevin McClure, CNMT
Bobby Jackson
Lael Gore, CNMT

17. **UAB Hospital**
Molecular Imaging and Therapeutics
7th Floor-Quarterback Towers
619 19th Street South,
Birmingham, AL 35233-6835 **(205) 975-8325**
* David Kynard, CNMT
Victoria Hansen, CNMT
Daniel Yoder, CNMT
Jennifer Hill, CNMT
Jeanette Bythwood, CNMT
Kernesha Weatherly, CNMT
Shalin Waterford, CNMT

18. **UAB Medical West**
Nuclear Medicine
US Highway 11 South
Bessemer, AL 35020 **(205) 481-7190**
*Tiffany Jennings, CNMT
Christina Self, CNMT
Stefane' Glover, CNMT

19. **Department of Veterans Affairs Medical Center**
Nuclear Medicine Service
700 19th Street South
Birmingham, AL 35233 **(205) 933-8101, x 6615**
*Denois Lockett, RT(N)
Amikka Watts, CNMT
Cassandra Smith, CNMT
Shantia King, CNMT
Tracey Britton, CNMT
Johnathan Crayton, CNMT
Hong, Lin, CNMT
Radiation Safety: **(205) 933-8101, x 6610**
*Kathy Boyd, MS, CNMT
Kim Holland

20. **Walker Baptist Medical Center**
Nuclear Medicine Department
3400 U. S. Highway 78 East
Jasper, Alabama 35501
or
P.O. Box 3547
Jasper, AL 35502-3547 **(205) 387-4080**
*Brett Black, CNMT

21. **Walker Medical Diagnostics, LLC**
Nuclear Medicine Department
1450 Jones Dairy Road
Jasper, Alabama 35501 **(205) 295-4100**
*Jackie Lee, RT, CNMT
Kim James, RT

*Denotes supervisory personnel

COMPUTED TOMOGRAPHY CLINICAL AFFILIATES

1. **Baptist Medical Center South - Montgomery**
   2105 East South Boulevard
   Montgomery, AL 36116 **(334) 286-2386**
   *Jackie Davis

2. **Brookwood Medical Center – CT**
   210 Brookwood Medical Center Drive
   Birmingham, AL 35209 **(205) 877-1804**
   *Dianna McCain

3. **HH Decatur Morgan Hospital – CT**
   1201 7th Street SE
   Decatur, AL 35601 **(256) 341-2540**
   *Jonathan Proctor

4. **Marshall Medical Center South**
   2505 AL-1
   Boaz, AL 35957 **(256) 593-8310**
   * Mark Sweatt

5. **Princeton Baptist Medical Center – CT**
   701 Princeton Avenue SW
   Birmingham, AL 35211 **(205) 783-3282**
   *Sherry Pair

6. **Shelby Baptist Medical Center – CT**
   US Highway 31
   Alabaster, AL 35007
   * Susan Staniszewski

7. **UAB Advanced Imaging – CT**
   2000 6th Avenue South
   Birmingham, AL 35233 **(205) 801-8890**
   *Gerald Waldrop

8. **UAB Hospital – CT**
   619 19th Street South
   Birmingham, AL 35233 **(205) 934-4831**
   *Yvette Glenn

9. **Department of Veterans Affairs Medical Center – CT**
   700 19th Street South
   Birmingham, AL 35233 **(205) 933-8101, x6723**
   * Warren Dukes
   Rainey Varner

10. **Walker Baptist Medical Center – CT**
3400 US Highway 78 East
Jasper, AL 35501 **(205) 387-4297**
* Kay Laney

11. **Walker Medical Diagnostics, LLC – CT**
1450 Jones Dairy Road
Jasper, AL 35501 **(205) 295-4105**
*Neal Griffin

MAGNETIC RESONANCE CLINICAL AFFILIATES

1. **Brookwood Medical Center – MRI**
2010 Brookwood Medical Center Drive
Birmingham, AL 35209 **(205) 877-1745**
*Dianna McCain

2. **Cullman Regional Medical Center – MRI**
1912 AL Highway 157
Cullman, AL 35055 **(256) 737-2186**
*Dewayne Denny

3. **Department of Veterans Affairs Medical Center – MRI**
700 19th Street South
Birmingham, AL 35233 **(205) 933-8101, x4387**
*Warren Dukes
Rainey Varner

4. **Walker Medical Diagnostics, LLC – MRI**
1450 Jones Dairy Road
Jasper, AL 35501 **(205) 295-4105**
*Neal Griffin

Clinical Site	Phone #	Fax #
BMC Princeton	(205) 783-3020	(205)783-7463
Brookwood Medical Center	(205) 877-1354	(205) 877-2523
Cardinal Health Nuclear Pharmacy	(207) 324-3673	(205) 324-3433
Cardiology, P.C.	(205) 786-8733	(207) 786-6669
Brookwood Cardiology Diagnostic Center.	(205) 795-5033	(205) 599-9108
Children's Hospital	(205) 939-9667	(205)939-6872
Citizens Baptist Medical Center	(256) 761- 4492	
Cullman Medical Center	(256) 737-2799	
Grandview Medical Center	(205) 971-6275	
HH Decatur Morgan Hospital	(256) 341-2545	
Heart South Cardiovascular Group, PC	(205) 739-2043	(205) 739-2033
Image South PET Center	(205) 870-1979	
Shelby Baptist Medical Center	(205) 620-8602	(205) 620-7942
St. Vincent's East	(205) 838-3435	(205) 838-3459
St. Vincent's PET, LLC	(205) 930-2670	(205) 930-2671
UAB Advanced Imaging, PET Center	(205) 801-7561	(205) 801-7562
UAB Hospital	(205) 975-8325	(205) 934-5589
UAB Highlands	(205) 930-7040	(205) 930-7629
UAB West	(205) 481-7190	(205) 481-7788
VAMC	(205) 933-8101 (X 6615)	(205) 933-4484
VA (RSO)	(205) 933-8101 (X 6610)	
Walker Baptist Medical Center	(205) 387-4080	(205) 387-4618
Walker Medical Diagnostics, LLC	(205) 295-4100	(205)295-4101

Door to Department Directions

(Some clinic sites do not have door to department directions)

Brookwood Medical Center

On the first day, the student may park in the employee parking deck but will need to state his/her name into the intercom along with the clinic supervisor and department. Go across the street and up the hill. Enter through the main entrance of the hospital. Take a right and follow the directions to the nuclear medicine department.

Brookwood Cardiology Diagnostic Center (CVA 280 Location)

Go to the main entrance. The diagnostic halls are located to the right of main entrance. The entrance to Nuclear Department is on Spect Hall

Cardiology PC

If you park on the street near the ER or in the parking deck across the street from the ER - you should enter the hospital at the door 50 feet to the left of the ER. Take an immediate left when you enter the building. Walk down the ramp and when the tile turns to carpet our door is the first on the right - the

Children's Hospital

If you are coming from campus, you will just follow the "river" on the 2nd floor across to the Benjamin Russell Building. When you arrive at the lobby, you will take the glass elevators to the first floor and enter the Imaging doors. Once in the department, there will be signs to the Nuclear Medicine Department.

Cullman

Once you enter the main entrance of CRMC, you will go straight until you come to the elevators; take the hall to the left of the elevators. Continue down the hall until you see a sign hanging from the ceiling that says DIAGNOSTIC IMAGING. The door to the right is the waiting room. Go through the waiting room to the desk and the students will ask for someone in Nuclear Medicine department. One of the members of our staff will meet them at the receptionist desk. The doors to Nuclear medicine are locked and you must have an access card to enter.

HH Decatur Morgan

Coming into the admission center door on Somerville Road, go down the hallway (green tile line on floor) right and immediate right into the Nuclear Medicine Department.

Heart South

Enter into the 1022 Tower building, walking straight ahead and take elevators (either on the left or right) up to the 5th floor of the building. Once on the 5th floor, enter into suite 500. Approach front desk; identify yourself as nuclear student and front office staff will notify someone in the nuclear department of student's arrival.

ATTENDANCE POLICY

1. Students are expected to be present in clinic for 8 hours, plus 30 minutes for lunch and two-15 minute breaks if the work schedule permits.
2. Punctual attendance is mandatory.
3. If absence or lateness is unavoidable, both the clinical site and the NMT office (975-4237) must be notified within 30 minutes of the scheduled starting time each day that the student is late or absent.
4. Excessive tardiness or absences may affect the clinical grade adversely.
5. No absences from clinic are allowed.
6. Absences must be made up before the end of the last official final exam day of the semester in which they occurred.

7. If class cancellation occurs due to inclement weather on an assigned clinical day, every effort should be made to be present since it is possible the clinics could be in need of assistance on such days. Your safety, however, should take priority. If you cannot get to your clinical site, notify your clinical instructor and the NMT office.

Dress Code

1. All students must wear a long sleeved, knee length lab coat over appropriate street clothes or uniform. No jeans, short skirts, revealing clothing, caps or headwear of any kind are permitted. Headdresses may be worn for religious reasons if approved by faculty, staff and clinical affiliate.
2. The only uniform permitted is defined scrubs with a white or black undershirt. The color of the scrubs will be voted on and determined by each class.
3. Whole body and finger personal dosimetry badges must be properly worn whenever in clinic particularly due to handling radioactive material as required by federal, state and institutional regulations.
4. Student name badges must be worn at all times.
5. Footwear should be clean, cover the entire foot, closed-toed and provide good balance. No high heels, clogs, open-toed shoes are permitted. Properly and securely laced black or white athletic shoes in good condition may be worn.
6. Jewelry, make-up, cologne, and perfume should be understated and kept to a minimum. Fingernails should be clean and neatly trimmed. While piercings other than one set of earrings are discouraged, all students must abide by the clinical affiliates' rules and regulations concerning this issue.
7. Hair should be neat in appearance. Longer hair must be worn up and secured off the face. Excessive or unconventional hairstyles or colors are prohibited. Facial hair must be trimmed and neatly kept. If facial hair interferes with a respiratory fit test, it may need to be shaved.
8. No visible tattoos are allowed.
9. Students may be required to comply with the dress code of a particular institution. See Appendix C, D & E, Institutional Dress Codes (UAB Highlands, UAB Hospital, and CVA).

Radiation Dosimeters

1. NMT students are issued a whole body badge and TLD ring badge to monitor radiation exposure.
2. Students are responsible for the security of their radiation dosimeters, and are expected to wear them appropriately in the clinical and laboratory settings at all times.
3. Whole body and ring badges will be collected during the last week of each month. Students must review and initial their radiation exposure reports as they become available.
4. Lost badges should be reported to the Clinical Coordinator immediately. Students are not permitted to participate in instructional or clinical activities involving radioactivity without appropriate radiation dosimeters. There is a replacement charge of $5.00 for ring badges and $5.00 for whole body badges, payable at the time the new badge(s) is (are) received. A lost film badge report form must also be completed as required by the UAB Radiation Safety Office.

Accidents at Clinical Sites

Students who are involved in accidents while in clinic should report the incident to the clinical supervisor immediately. Initial treatment for the injury may be rendered by the clinical site. A charge may be made to the student or the student's insurance for all or part of that treatment. If more extensive treatment is required, depending on the nature of the injury, the student should report to the Student Health Service or the UAB Hospital Emergency Department. If the injury involves a needle stick or exposure to infectious disease, see policy by this link:
https://www.uab.edu/humanresources/home/employeehealth/reportingexposures

An incident report should be completed at the site where the accident occurred and copies should be forwarded to the Student Health Service and the NMT Program Director.

The NMT Program Director or Clinical Coordinator should be informed promptly after the accident has occurred.

Exposure to Infectious Disease

Students who have received a needle stick injury or who may have been exposed to an infectious disease (e.g., HIV, hepatitis B, tuberculosis) should report the incident to the clinical supervisor immediately.

If the student is in clinic at UAB:
Contact UAB Employee Health (934-3675) during regular daytime working hours or page the Rapid Response Needle stick Team (934-3411) after hours. The student will be instructed where to report for evaluation and treatment.

If the student is in clinic in Birmingham, but outside UAB:
If the institution will not provide care free of charge to the student, contact UAB Student Health (934-3580) or UAB Employee Health (934-3675) for advice about where to report for evaluation and treatment.

If the student is in clinic outside of Birmingham:
Contact UAB Student Health (934-3580) during regular business hours or, if after hours, page the Rapid Response Needlestick Team (934-3411) for advice about where to be evaluated. If travel to Birmingham is not practical, the student will be advised to seek care at the local emergency department if the clinical facility will not provide evaluation through its own employee health service.

An incident report should be completed at the site where the exposure occurred and should include the following details:

a) the type of exposure
b) the hepatitis or HIV status of the patient
   (If the patient's serological status is unknown, the clinical supervisor should contact the patient's attending physician and request the physician obtain a specimen for serologic testing.)

The student should submit a copy of the incident report and/or copy of the treatment received at the emergency department within a week of the injury/exposure. This documentation should be mailed or hand delivered. Faxes will not be accepted to comply with guidelines governing patient confidentiality.

The NMT Program Director or Clinical Coordinator should be informed promptly after the needle stick/exposure has occurred.

CELLULAR PHONE AND ELECTRONIC DEVICES POLICY

While in clinic, a student is permitted to have a cell phone; however, the use of a cell phone is only permitted during breaks and lunch periods. Photos, videos and audio recordings in clinic are prohibited unless being used specifically for case study reports and compliance with Protected Health Information (PHI) is applied.

If an emergency situation occurs where the student must be in contact with family or friends, cell phones may be left on in silent or vibrate mode only and any emergency calls must be taken away from patient areas. If this emergency situation occurs in clinic, then the student must notify the Clinical Supervisor of such situation beforehand.

Any other personal electronic devices must only be used during breaks and lunch periods.

PREGNANCY POLICY

The purpose of the student pregnancy policy is to assure students a safe pregnancy and to be in compliance with federal and state radiation control regulations as well as the Equal Employment Opportunity Commission guidelines. Pregnant student nuclear medicine technologists may continue in the Nuclear Medicine Technology program. It is the individual student's responsibility to utilize the guidelines set forth in this policy for protection of the embryo/fetus and self. (see Pregnancy Acknowledgement)

Procedure:

1. Any suspected or known pregnancy can be voluntarily reported to the Program Director and/or the Academic Clinical Coordinator in writing. The program faculty will discuss with the pregnant nuclear medicine technology student the effects of irradiation in utero inclusive of radioprotective procedures.

2. The pregnant student will sign the Pregnancy Release form to acknowledge comprehension of the information provided by the Program faculty. The student will also be referred to the ASRT guidelines and other pertinent references on the subject.

3. The pregnant student will be issued an additional fetal monitor (radiation dosimeter) which will be worn at the waist and **under** a protective apron.

4. According to the NCRP Report # 53, the maximum permissible dose equivalent from occupation exposure to the expectant mother is 500 mrem (5 mSv) for the entire pregnancy.

5. The monthly radiation exposure report inclusive of accumulative dose for each individual is made available to the Program faculty and the student.

6. In accordance with the pregnancy policy of the specific clinical assignment, a student will wear an appropriate lead apron while in clinic.

7. It is not recommended that a pregnant student perform or observe any radiation therapy technique or PET procedure for the duration of the pregnancy.

8. Clinical rotation schedules may be modified to schedule the pregnant student through low radiation areas especially during the first trimester.

9. The pregnant student is expected to meet all objectives and clinical competencies of each clinical education course without exception. Failure to complete all required clinical assignments could possibly result in a failing grade for that clinical course.

10. For further information on this matter, visit the NRC website at www.nrc.gov/ then proceed by using the following prompts:
    - NRC Library
    - basic reference
    - key guidance documents
    - regulatory guides
    - occupation health
    - guide 8.13

11. A student is offered two alternatives after the consultation with the Program Director upon voluntarily declaring pregnancy. These options are:
    a. The declared pregnant student can immediately withdraw from all clinical and didactic courses and write a letter to the Radiography Program Director requesting re-entry the following year.
    b. The declared pregnant student can continue in the program after being given specific instruction regarding radiation safety practices, additional radiation monitoring, and specific clinical and laboratory assignments.

12. The student must abide by the regulations set forth by UAB Radiation Safety concerning Occupationally Exposed Pregnant Personnel and complete any advised training or informational programs requested by UAB Radiation Safety.

13. See NMT Program Policy and Procedure manual for more information.

CLINICAL ELECTRONIC TRACKING SYSTEM POLICY

Students must participate in the UAB NMT Program Clinical Electronic Tracking System. Failure to do so will result in at least a letter grade deduction from clinical courses and could lead to dismissal from the program.

Professional Behavior in Clinic Policy

Students are expected to be professional in clinic. They are to exhibit professional behavior with clinical preceptors, patients, and other healthcare providers. Professional behavior includes not using electronic devices unless given permission, not sleeping in clinic and any other behavior deemed unprofessional by the NMT program director or clinical coordinator.

Failure to Follow Policies and Procedures of the Clinical Handbook

Students are required to follow the policies and procedures outlined in the Clinical Education Handbook. The Handbook is distributed at the beginning of the third term, the term in which the clinical experience begins. **Ignorance of the contents of the Clinical Handbook is not an excuse for noncompliance.**

Violations of the policies and procedures will be handled in the following manner:

First violation:

The program director or clinical coordinator will review the policy or procedure in question with the student to ensure that the student understands the expected behavior. The counseling session will be documented in writing and maintained in the student's file.

Second violation:

The student will receive written notification that he/she is being placed on probation for failing to adhere to a policy or procedure for the second time. The period of probation will extend for the remainder of the term in which the second violation took place and the following term.

Third violation:

The third infraction will result in the student's dismissal from the program.

Scheduled Clinical Site Visit Policy

Students are to remain at the clinical site until the scheduled visit has been changed or is complete. A scheduled site visit will be conducted by one of the University of Alabama at Birmingham Nuclear Medicine Program personnel. No student is to leave the clinic site prior to the clinical site visit unless an emergency occurs. In the event of an excusable emergency, proper documentation should be submitted.

Student Evaluation of Clinical Experience

Students' perceptions about the effectiveness of clinical teaching are very helpful in improving and strengthening the clinical portion of the NMT curriculum. To gather this information in a systematic way, students are asked to evaluate the clinical instruction they have received at the conclusion of each rotation. The completed evaluation form (see Appendix E) should be returned to the Clinical Coordinator within three days of the end of a rotation.

CLINICAL EDUCATION

OVERVIEW OF CLINICAL EDUCATION

The purpose of clinical education is to provide students with experiences that cannot easily be reproduced in a classroom or instructional laboratory setting. Each student in the Nuclear Medicine Technology Program will be placed in the following areas:

General Imaging
Nuclear Cardiology
Radiopharmacy
PET Imaging
Elective - pediatric nuclear medicine

While an attempt is made to standardize the clinical experience, each student's experience will be slightly different based on the student's initiative and prior clinical experience and the clinic site's patient population and workload.

To assure that students receive comparable clinical experiences, the clinical education system is composed of five areas that include both written assignments and hands-on skills learning. The five areas are summarized on the next page, Clinical Evaluation System. The written assignments are designed to help students apply their didactic knowledge to clinical practice, and to assist them in evaluating individual strengths and weaknesses as they progress through the clinical practicums. Attaining certain clinical skills is the major focus of the clinical practicum. Hence, the clinical competencies comprise 50% to 80% of the clinical grade, with the greater emphasis on these skills in the last two semesters of the curriculum.

At the end of each term, the student meets with the Clinical Coordinator or Program Director to review the student's self-assessment and to identify the clinical competencies to be completed in the following term.

While in clinic, the student shall be supervised by clinical faculty that are certified nuclear medicine technologists with at least two years' experience.

CLINICAL EVALUATION SYSTEM

	Second Semester	Third Semester	Fourth Semester
Clinical Assignments	20% 1. General Orientation 2. Camera Quality Control 3. NRC Regulation Compliance	None (unless unable to complete during the 3rd Semester)	None (unless unable to complete during the 3rd Semester)
*Clinical Competencies	40% Camera quality control Dose calibrator quality control Radiation safety/protection Areas surveys/wipe testing IV injections (if permitted) Bone imaging Other general imaging competencies as assigned	Third semester: 60% Fourth semester: 60% <u>Nuclear Cardiology</u> Stress test Myocardial perfusion imaging Myocardial perfusion processing <u>General Imaging</u> As assigned <u>Reevaluation</u> Beginning in the third semester, each student will be re-evaluated on 2-3 competencies from previous terms. The areas to be reevaluated will be selected by the clinical coordinator or program director. *In addition to the imaging rotations, each student will complete at least 1 week rotation in Radiopharmacy and a 4-6 week rotation in PET imaging. Students may also complete a 2-3 week elective in pediatric nuclear medicine.	
Summary Evaluation	15%	15%	15%
Case Studies	10%	Presentation required: 10%	Presentation required: 10%
Electronic Tracking System	10%	10%	10%
Self-Assessment	5%	5%	5%
TOTAL	100%	100%	100%

Please note that clinical competencies may vary for each semester depending on the clinical rotation site the student is assigned to.

COMPUTED TOMOGRAPHY CLINICAL COURSE EVALUATION

Four Clinical Education Behavior Evaluation Forms (CEBEs), and one summary evaluation, have to be completed by the CT clinical preceptor, or their designee, during the semester. In addition, each student must complete a self-assessment, summary evaluation, and perform (10) mandatory CT procedures for clinical experience documented on the CT Clinical Competency Evaluation Form. The (10) mandatory CT procedures for clinical experience are as follows:

Head and Neck	2
Spine	2
Thorax	1
Abdomen and Pelvis	2
Musculoskeletal	1
Special Imaging Procedure	1
Quality Control	1

Criteria for grading are based on the following:

Activity	% of Grade
Required Clinical Experience (10)	50%
Electronic Tracking System Use	10%
CEBF (4)	20%
Summary Evaluation (1)	15%
Self-Assessment	5%
Total	**100%**

MAGNETIC RESONANCE CLINICAL COURSE EVALUATION

Four Level of Performance Forms (LOPs), and one summary evaluation, have to be completed by the MRI clinical preceptor, or their designee, during the semester. In addition, each student must complete a self-assessment, summary evaluation, and perform (10) mandatory MRI procedures for clinical experience documented on the MRI Clinical Competency Evaluation Form. The (10) mandatory MRI procedures for clinical experience are as follows:

Head and Neck	2
Spine	2
Thorax	1
Abdomen and Pelvis	2
Musculoskeletal	1
Special Imaging Procedure	1
Quality Control	1

Criteria for grading are based on the following:

Activity	% of Grade
Required Clinical Experience (10)	50%
Electronic Tracking System Use	10%
CEBF (4)	20%
Summary Evaluation (1)	15%
Self-Assessment	5%
Total	**100%**

SITES FOR COMPLETION OF CLINICAL COMPETENCIES

	BMC	CMC	CBMC	DMH	TRINITY	BMCP	PMCC	CULL	UABH	STVE	SBMC	UAB	MW	VA	WBMC
camera qc	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
dose calb qc	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
area survey	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
bone	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
hepatobil	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
lung perf	Y	N	Y	Y	Y	Y	Y?	Y	Y	Y	Y	Y	Y	Y?	Y
lung vent	Y	N	Y	Y	Y	Y	Y?	Y	Y	Y	Y	Y	Y	Y?	Y
renal	Y	N	N	Y	Y	Y	Y?	Y?	Y	Y	Y	Y	Y	Y	Y
renal process	Y	N	N	Y	Y	Y	Y?	Y?	Y	Y	Y	Y	Y	Y	Y
thyroid	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
thy upt	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
muga	Y	N	N	Y	Y	Y	Y?	Y?	Y?	Y?	Y?	Y	Y?	Y?	Y
muga process	Y	N	N	Y	Y	Y	Y?	Y?	Y?	Y?	Y?	Y	Y?	Y?	Y
IV inj	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
stress test	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
myocard perf imag	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
myocard process	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
IV Placement		Y?	Y?	Y?	N	N	N	Y	N	N	N	N	N	N	N

Y = Yes
N - No

SITES FOR COMPLETION OF CLINICAL COMPETENCIES (NUCLEAR CARDIOLOGY)

	CPC	BCDC	BMC CARDIO	HS
camera qc	Y	Y	Y	Y
dose calb qc	Y	Y	Y	**Y**
area survey	Y	Y	Y	**Y**
muga	Y?	Y?	Y?	Y
muga process	Y?	Y?	Y?	Y
IV inj	Y	N	Y	Y
stress test	Y	Y	Y	**Y**
myocard perf imag	Y	Y	Y	**Y**
myocard process	Y	Y	Y	**Y**
IV Placement	Y	N	Y	Y
Attenuation Correction	Y	N	Possible	N

Y = Yes
N = No

NUCLEAR MEDICINE TECHNOLOGY PROGRAM CLINICAL OBJECTIVES:

Upon completion of the clinical portion of the NMT curriculum (NMT 491-493), the student will be able to perform the following tasks in the clinical setting.

DEPARTMENT ADMINISTRATION/MANAGEMENT FUNCTIONS

1. State the code numbers and the emergency dialing procedures for cardiac arrest, fire, and security.

2. State the location of the emergency equipment for use in the nuclear medicine department.

3. Describe the daily department routine in relation to patient scheduling, radiation surveys, radiopharmaceutical ordering, and general supplies ordering.

4. Interact with hospital and departmental staff to schedule examinations most effectively.

RADIATION SAFETY/PROTECTION

1. Use time, distance and shielding techniques consistently to minimize radiation exposure to self and others.

2. Wear protective clothing and personnel monitoring devices consistently.

3. Use appropriate methods for storing and disposing of radioactive materials and waste.

4. Perform area radiation surveys and wipe tests for contamination on a regular schedule.

5. Perform decontamination procedures as required.

6. Review own monthly radiation exposure and take appropriate action to decrease exposure, as needed.

7. Receive and process radioactive shipments according to department protocol and regulatory requirements.

8. Maintain records of radiation surveys, wipe tests, waste disposal, radioactive material receipt, and radioactive spills and decontamination according to regulatory requirements.

PATIENT CARE

1. Maintain the patient's dignity and comfort.

2. Communicate with the patient throughout the procedure to provide reassurance and elicit cooperation.

3. Consistently use standard precautions and appropriate isolation techniques, as necessary.

4. Use proper body mechanics and techniques for transferring patients to and from imaging beds.

5. Operate oxygen delivery equipment, as needed.

6. Observe and maintain intravenous tubing, nasogastric tubing, chest tubes, urinary catheters, CVP lines, and oxygen administration lines.

7. Assist patients with bedpans, urinals, and emesis basins.

8. Determine vital signs as needed.

9. Recognize emergency medical situations and notify appropriate personnel.

10. Initiate CPR, if necessary.

11. Provide appropriate first aid in response to patient seizures, hemorrhage, or fainting.

IMAGING AND NON-IMAGING PROCEDURES

1. Verify the identity of all patients and confirm the written orders for a procedure before proceeding with an examination.

2. Explain the procedure to the patient in a clear, honest and reassuring manner, and address any questions or concerns the patient may have.

3. Obtain pertinent medical history by reviewing the medical record or interviewing the patient.

4. Identify contraindications for the nuclear medicine study and confirm that necessary pre-examination procedures have been completed.

5. Administer the appropriate radiopharmaceutical by the proper route.

6. Prepare the necessary equipment for the procedure.

7. Enter appropriate patient data into the computer and select the correct computer acquisition software.

8. Position the patient correctly and comfortably, and position the equipment to encompass the area to be studied.

9. Initiate imaging/data collections at the appropriate time(s) following tracer administration.

10. Perform venipuncture as required to collect venous blood samples.

11. Process examination data using the appropriate computer protocol.

12. Place all examination results in the proper format and label them accurately and completely.

13. Review the examination results for completeness and technical quality.

14. Perform the following routine examinations independently using the appropriate protocol and instrumentation:
    bone imaging
    gated equilibrium left ventricular function
    hepatobiliary imaging
    lung perfusion imaging
    lung ventilation imaging
    myocardial stress/rest imaging
    renal function imaging
    thyroid imaging
    thyroid uptake

INSTRUMENTATION

1. Perform routine scintillation camera quality control (uniformity, linearity, resolution and center of rotation) using standardized parameters.

2. Review scintillation camera quality control results and compare with previous results to determine acceptability and need for service.

3. Perform dose calibrator quality control (constancy, linearity, accuracy, geometric variation,) at prescribed intervals using the appropriate radiation sources.

4. Review dose calibrator quality control results and compare with previous results to determine acceptable performance.

5. Calibrate a scintillation spectrometer.

6. Perform daily background checks, chi-square evaluations and energy resolution checks on a scintillation spectrometer.

7. Review scintillation spectrometer quality control and compare with previous results to determine acceptable performance.

8. Operate a survey meter, checking the batteries and check source before each use.

9. Maintain records of instrumentation quality control results according to regulatory requirements.

RADIOPHARMACY

1. Correctly elute a Mo-99/Tc-99m generator using aseptic and radiation protection techniques.

2. Assay the eluate and determine its concentration.

3. Perform Mo-99 and Al^{+3} breakthrough checks on Tc-99m eluate, determine if the eluate is acceptable for administration and record the results.

4. Prepare Tc-99m-labeled radiopharmaceuticals according to kit instructions.

5. Calculate the final concentration of the preparation.

6. Determine the radiochemical purity of each prepared Tc-99m radiopharmaceutical, analyze and record the results.

7. Using a calculator and decay factor chart, calculate the volume or number of capsules in a unit dose.

8. Dispense a unit dose using appropriate radiation safety and aseptic techniques, and label the syringe or syringe shield.

9. Verify each unit dose in a dose calibrator before administration.

10. Record unit dose information in the appropriate format.

11. Dispose of radioactive and bio-hazardous waste appropriately.

12. Maintain records of eluate and radiopharmaceutical quality control, and unit dose records according to regulatory requirements.

PROFESSIONAL BEHAVIOR

1. Assess his/her own work objectively and implement changes for improvement.

2. Exercise independent judgment while remaining within limits of responsibility.

3. Interact with patients in a professional and empathetic manner.

4. Maintain confidentiality of patient information.

5. Cooperate effectively with other staff members.

6. Exercise proper judgment in using electronic devices when given permission to use them by the clinic site.

7. Refrain from sleeping while in class or clinic.

CLINICAL ASSIGNMENTS

NMT 691 CLINICAL PRACTICE I

CLINICAL ASSIGNMENT #1: ORIENTATION

Name: _____ Clinical Site: _____

Date: _____

1. Who is the clinical supervisor/chief technologist in this department?

2. How many other nuclear medicine technologists work in this department?

3. Identify the physicians who interpret the nuclear medicine studies.

4. If there are other personnel who participate in the performance of patient studies, who are they (e.g., nurse, paramedic) and what are their responsibilities?

5. Who do you call to report an emergency and what is/are the emergency phone numbers? Consider the different types of emergencies: cardiac arrest, fire, security, etc.

Clinical Assignment #1: Orientation Continued…

6. Where is the emergency equipment kept? What equipment does this include?

7. How are the following supplies obtained? From whom are they ordered; who places the order; when is the order placed?

   Linen

   Non-radioactive drugs
   (e.g. persantine)

   Radiopharmaceuticals

8. Where is the nuclear medicine procedure manual kept? What is the purpose of this document? When was it last updated? What information is contained in this manual?

9. How is nuclear medicine staff made aware of a referring physician's order?

Clinical Assignment #1: Orientation Continued…

10. What is this department's procedure for verifying the physician's order for a nuclear medicine study?

11. Who is responsible for transporting patients to nuclear medicine? How is this arranged for?

NMT 691 CLINICAL PRACTICE I

CLINICAL ASSIGNMENT #2: CAMERA QUALITY CONTROL

Name: _____ Clinical Site: _____

Date: _____

1. How many scintillation cameras does this department have?

Choose one camera and answer the following questions about it.

2. State the manufacturer's name and model of the camera you have chosen.

3. How large is the crystal in this camera? Crystal size is typically reported as the diameter of the crystal in mm.

4. How many photomultiplier tubes (PMTs) are in this camera?

Clinical Assignment #2: Camera Quality Control Continued…

5. List the collimators available for use with this camera. (Be sure to define the energy ranges for collimators designated as low, medium or high energy.)

6. How is the photopeak and window set on this camera?

7. Is camera quality control performed intrinsically or extrinsically? If extrinsically, identify the collimator that is used.

8. In performing quality control on this camera, what radioactive source is used for uniformity testing? Where is the source placed in relation to the crystal?

9. What type of phantom is used to monitor the camera's resolution and linearity? What is the smallest bar width or hole in the phantom? How does it compare to the camera's intrinsic resolution?

Clinical Assignment #2: Camera Quality Control Continued…

10. Review today's uniformity and this week's resolution/linearity quality control images performed on this camera. Describe the results. How do the most recent images compare with previous images?

11. Based on the most recent quality control images, can this camera be used for patient imaging?

12. How are the results of these quality control results recorded and stored?

NMT 691 CLINICAL PRACTICE I

CLINICAL ASSIGNMENT #3: ASSESSMENT OF COMPLIANCE WITH NRC REGULATIONS

Name: _____ Date: _____

COMPLIANCE EVALUATION STUDENT CHECK LIST

Specific Licenses

Human use by institutions:

Appointed Radiation Safety Officer? ___ Name: _____ Qualifications: _____

Medical Radiation Safety Committee instituted? ____ If no, reasons: _____

_____

If yes, committee members:

_____

_____

Users are physicians trained in isotopes? ____ Isotopes authorized _____

Purpose of use (10 CFR 35.100, 200, etc. with description): _____

_____

Clinical facilities for patient care?

_____

_____

Registration of Sources

Sealed source inventory on file? _____

Security

Sources locked up when not in use? _____

Uncontrolled Area Levels

At all points, dose rate less than 2 mrem/hr. or 100 mrem/week or 0.5 rem/year? ___

_____

Surveys & Tests

Periodic area surveys? _____ How often? _____

Periodic contamination surveys? _____ How often? _____

Clinical Assignment #3: Assessment of Compliance with NRC Regulations Continued…

Semi-annual leak test of sealed sources? _____

Instrument calibration

Periodic instrument calibrations? _____ Briefly explain each type with frequency:

Gamma Camera_____

Uptake Probe_____

Well Counter_____

Dose Calibrator_____

Survey meter_____

Software (e.g.: flood correction tables)_____

Any other_____

Waste Disposal

Disposal by sewer? _____ Burial? _____

Transfer? _____ To whom? _____

Package Receipt

Radioisotope orders placed by RSO/ designee? _____

Packages monitored upon receipt? _____

Personnel Dosimeters

Available to persons likely to be exposed? _____ How many? _____

Radiations measured: _____

Available at all high radiation areas? _____

Signs and Labels

Radioactive materials areas posted? _____

Radiation areas posted? _____

High radiation areas posted? _____

Instruction of Personnel

Regulations, licenses and operating procedures available? _____

"Notice to Employees" posted in work areas? _____

Personnel exposure records available? _____

Emergency procedures posted? _____

Adequate training in safety procedures? _____

Records

Clinical Assignment #3: Assessment of Compliance with NRC Regulations Continued

Calibrations? _____ Surveys? _____

Receipt, transfer & disposal of sources? _____

Personnel exposures? _____ Contamination surveys? _____

Wipe tests? _____ Employee training? _____

Results of student performed tests

Wipe test for contamination:
Locations of wipes _____
Activities found _____
Area surveys:
Locations of surveys _____
Measures Dose Equivalent Rates _____

_____ _____
(Signature) (Date)

NMT COMPETENCIES:

RADIATION SAFETY
&
QUALITY CONTROL

Competency Evaluation

CAMERA QUALITY CONTROL

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently camera quality control at least **5** times under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

1.	Remove existing collimator	Met	Not met	Not applicable
2.	Raise detector to correct height	Met	Not met	Not applicable
3.	Place point source at correct distance	Met	Not met	Not applicable
4.	Place sheet source at correct distance	Met	Not met	Not applicable
5.	Place bar phantom in correct position	Met	Not met	Not applicable
6.	Prepare camera &/or computer to begin acquisition (correct energy setting, window setting, acquisition parameters)	Met	Not met	Not applicable
7.	Label images with appropriate information	Met	Not met	Not applicable
8.	Present images to supervisor	Met	Not met	Not applicable
9.	Return camera to operational status	Met	Not met	Not applicable
10.	Perform qc tests efficiently	Met	Not met	Not applicable
11.	Observe radiation safety procedures	Met	Not met	Not applicable

Comments:

After observing the student complete uniformity, resolution, and linearity tests on the gamma camera, I believe that he/she is competent to perform these procedures with minimal assistance.

Technologist:_____ Date:_____

Competency Evaluation

DOSE CALIBRATOR CONSTANCY CHECK

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently daily dose calibrator quality control at least **3** times under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

1.	Choose correct reference for constancy test	Met	Not met	Not applicable
2.	Measure standard at appropriate radionuclide settings	Met	Not met	Not applicable
3.	Obtain background at each radionuclide Setting	Met	Not met	Not applicable
4.	Subtract background from measurement at each radionuclide setting	Met	Not met	Not applicable
5.	Correct each measurement for decay	Met	Not met	Not applicable
6.	Calculate percent difference between calculated and measured readings.	Met	Not met	Not applicable
7.	Record and review results; determine if calibrator is operating within acceptable limits.	Met	Not met	Not applicable

Comments:

After observing the student complete constancy testing on the dose calibrator, I believe that he/she is competent to perform this procedure with minimal assistance.

Technologist: _____ Date: _____

Competency Evaluation

RADIATION SAFETY/PROTECTION PRACTICES

STUDENT: _____ DATE: _____

The technologist evaluating the student should circle the performance level for each item.

1.	Consistently wears personal radiation dosimeters correctly	Met	Not met	Not applicable
2.	Consistently uses appropriate measures to reduce radiation exposure (time, distance, shielding)	Met	Not met	Not applicable
3.	Routinely uses syringe shields when preparing or administering doses	Met	Not met	Not applicable
4.	Routinely monitors hands & feet before leaving clinical area	Met	Not met	Not applicable
5.	Disposes of radioactive waste appropriately	Met	Not met	Not applicable
6.	Consistently wears gloves when handling radioactive materials	Met	Not met	Not applicable
7.	Promptly cleans radioactive spills and decontaminates area correctly	Met	Not met	Not applicable

Comments:

After observing the student complete this task, I believe that he/she is competently performs these procedures with minimal assistance or reminders.

Technologist: _____ Date: _____

Competency Evaluation

AREA SURVEYS / WIPE TESTING

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **3** area surveys and wipe tests under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

1.	Check batteries in survey meter before making measurements	Met	Not met	Not applicable
2.	Measure background radiation level	Met	Not met	Not applicable
3.	Use survey meter properly (adjust scale; aim window at area being measured; move probe slowly over area to obtain accurate measurement)	Met	Not met	Not applicable
4.	Monitor areas according to department floor plan	Met	Not met	Not applicable
5.	Record measurements in appropriate format	Met	Not met	Not applicable
6.	Correctly identify areas needing Decontamination	Met	Not met	Not applicable
7.	Perform wipe tests on contaminated areas to determine removable condition	Met	Not met	Not applicable
8.	Decontaminate areas, as necessary, to background level	Met	Not met	Not applicable

Comments:

After observing the student, I believe that he/she competently performs these procedures with minimal assistance.

Technologist: _____ Date: _____

NMT COMPETENCIES:

GENERAL IMAGING

Competency Evaluation

INTRAVENOUS INJECTION COMPETENCY

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **10** intravenous injections under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

1.	***** Verify written orders for the study	Met	Not met	Not applicable
2.	***** Verify patient identification	Met	Not met	Not applicable
3.	Use effective communication skills	Met	Not met	Not applicable
4.	Assemble injection materials (supplies ready, accessible, organized)	Met	Not met	Not applicable
5.	Choose appropriate site (position, assessment)	Met	Not met	Not applicable
6.	Place tourniquet correctly (occlude vein 2-3 in. above site)	Met	Not met	Not applicable
7.	***** Use appropriate aseptic technique (alcohol prep used to swab site in spiral inward to outward motion; re-swab if repeat palpation)	Met	Not met	Not applicable
8.	***** Wear gloves	Met	Not met	Not applicable
9.	Handle syringe proficiently (inspect contents; remove cap smoothly, place in holder if one used; hold dose to minimize radiation exposure)	Met	Not met	Not applicable
10.	Access vein proficiently (bevel up; vein anchored; syringe securely held; smooth entry; shallow angle of injection; needle penetrates top wall of vein; sufficient depth; minimize manipulation)	Met	Not met	Not applicable
11.	Administer radiopharmaceutical (infuse dose slowly checking for infiltration)	Met	Not met	Not applicable
12.	Release tourniquet (release tourniquet without disturbing needle; release tourniquet before removing needle)	Met	Not met	Not applicable
13.	Remove needle (cotton held lightly over puncture site until needle removed; needle removed in smooth action)	Met	Not met	Not applicable

Intravenous Injection Competency continued…

14.	Care for puncture site (apply pressure to site; apply bandage; check for bleeding)	Met	Not met	Not applicable
15.	***** Dispose of waste appropriately (needle not recapped or "scoop" technique used to cover needle; bio-hazardous and radioactive waste disposed of in appropriate containers)	Met	Not met	Not applicable
16.	***** Demonstrate proper radiation protection and universal precautions techniques throughout procedure	Met	Not met	Not applicable

*** Failure to perform these tasks constitutes an automatic failure of this competency. Student must complete an additional 10 intravenous injections under the supervision of a technologist before attempting the competency evaluation a second time.**

Comments:

After observing the student complete this task, I believe that he/she is competent to perform an intravenous injection independently.

Technologist: _____ Date: _____

Competency Evaluation

BONE: IMAGING

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **3** bone-imaging studies under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

PATIENT CARE:

1.	***** Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3.	Obtain appropriate history	Met	Not met	Not applicable
4.	Perform aseptic IV injection	Met	Not met	Not applicable
5.	Provide appropriate patient care	Met	Not met	Not applicable
6.	Assist in patient transfer	Met	Not met	Not applicable
7.	Provide safe and dignified environment	Met	Not met	Not applicable
8.	Discharge the patient	Met	Not met	Not applicable

INSTRUMENTATION:

9.	Calibrate camera for radionuclide	Met	Not met	Not applicable
10.	Choose and install correct collimator	Met	Not met	Not applicable
11.	Set acquisition parameters correctly	Met	Not met	Not applicable
12.	Enter patient information	Met	Not met	Not applicable
13.	Operate camera efficiently	Met	Not met	Not applicable

PERFORM BONE IMAGE:

14.	Remove attenuating objects	Met	Not met	Not applicable
15.	Request that patient void bladder	Met	Not met	Not applicable
16.	Position patient correctly	Met	Not met	Not applicable
17.	Compensate for positioning problems	Met	Not met	Not applicable
18.	Place detector at appropriate distance	Met	Not met	Not applicable
19.	Perform image efficiently	Met	Not met	Not applicable

COMPLETING THE BONE IMAGE:

20.	Label images correctly	Met	Not met	Not applicable
21.	Present study to supervisor	Met	Not met	Not applicable
22.	Prepare room for next patient	Met	Not met	Not applicable

RADIATION / BIOHAZARDS:

23.	Observe precautions throughout study	Met	Not met	Not applicable

Competency Evaluation Bone: Imaging continued…

PROBLEM SOLVING:

24.	Recognizing problems & handle each appropriately	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student complete this study, I believe that he/she is competent to perform this study with minimal assistance.

Technologist: _____ Date: _____

Competency Evaluation

BONE: SPECT IMAGING

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **3** bone-imaging studies under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

PATIENT CARE:

1.	* Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3.	Obtain appropriate history	Met	Not met	Not applicable
4.	Perform aseptic IV injection	Met	Not met	Not applicable
5.	Provide appropriate patient care	Met	Not met	Not applicable
6.	Assist in patient transfer	Met	Not met	Not applicable
7.	Provide safe and dignified environment	Met	Not met	Not applicable
8.	Discharge the patient	Met	Not met	Not applicable

INSTRUMENTATION:

9.	Calibrate camera for radionuclide	Met	Not met	Not applicable
10.	Choose and install correct collimator	Met	Not met	Not applicable
11.	Set acquisition parameters correctly	Met	Not met	Not applicable
12.	Enter patient information	Met	Not met	Not applicable
13.	Operate camera efficiently	Met	Not met	Not applicable

PERFORM BONE SPECT IMAGE:

14.	Remove attenuating objects	Met	Not met	Not applicable
15.	Request that patient void bladder	Met	Not met	Not applicable
16.	Position patient correctly	Met	Not met	Not applicable
17.	Compensate for positioning problems	Met	Not met	Not applicable
18.	Place detector at surface of patient	Met	Not met	Not applicable
19.	Perform SPECT image efficiently	Met	Not met	Not applicable

COMPLETING THE BONE SPECT IMAGE:

20.	Process and label the image correctly	Met	Not met	Not applicable
21.	Present study to supervisor	Met	Not met	Not applicable
22.	Prepare room for next patient	Met	Not met	Not applicable

RADIATION / BIOHAZARDS:

23.	Observe precautions throughout study	Met	Not met	Not applicable

Competency Evaluation Bone: SPECT Imaging continued…

PROBLEM SOLVING:

24.	Recognizing problems & handle each appropriately	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student complete this study, I believe that he/she is competent to perform this study with minimal assistance.

Technologist: _____ Date: _____

Competency Evaluation

BONE: LIMITED BONE IMAGING

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **3** limited bone-imaging studies under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

PATIENT CARE:

1.	* Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3.	Obtain appropriate history	Met	Not met	Not applicable
4.	Perform aseptic IV injection	Met	Not met	Not applicable
5.	Provide appropriate patient care	Met	Not met	Not applicable
6.	Assist in patient transfer	Met	Not met	Not applicable
7.	Provide safe and dignified environment	Met	Not met	Not applicable
8.	Discharge the patient	Met	Not met	Not applicable

INSTRUMENTATION:

9.	Calibrate camera for radionuclide	Met	Not met	Not applicable
10.	Choose and install correct collimator	Met	Not met	Not applicable
11.	Set acquisition parameters correctly	Met	Not met	Not applicable
12.	Enter patient information	Met	Not met	Not applicable
13.	Operate camera efficiently	Met	Not met	Not applicable

PERFORM LIMITED BONE IMAGE:

14.	Remove attenuating objects	Met	Not met	Not applicable
15.	Request that patient void bladder	Met	Not met	Not applicable
16.	Position patient correctly	Met	Not met	Not applicable
17.	Compensate for positioning problems	Met	Not met	Not applicable
18.	Place detector at surface of patient	Met	Not met	Not applicable
19.	Perform image efficiently	Met	Not met	Not applicable

COMPLETING THE LIMITED BONE IMAGE:

20.	Label the image correctly	Met	Not met	Not applicable
21.	Present study to supervisor	Met	Not met	Not applicable
22.	Prepare room for next patient	Met	Not met	Not applicable

RADIATION / BIOHAZARDS:

23.	Observe precautions throughout study	Met	Not met	Not applicable

Competency Evaluation Bone: Limited Bone Imaging continued…

PROBLEM SOLVING:

24.	Recognizing problems & handle each appropriately	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student complete this study, I believe that he/she is competent to perform this study with minimal assistance.

Technologist: _____ Date: _____

Competency Evaluation

BONE: THREE-PHASE BONE IMAGING

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least 3 three-phase bone-imaging studies under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

PATIENT CARE:

1.	* Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3.	Obtain appropriate history	Met	Not met	Not applicable
4.	Perform aseptic IV injection	Met	Not met	Not applicable
5.	Provide appropriate patient care	Met	Not met	Not applicable
6.	Assist in patient transfer	Met	Not met	Not applicable
7.	Provide safe and dignified environment	Met	Not met	Not applicable
8.	Discharge the patient	Met	Not met	Not applicable

INSTRUMENTATION:

9.	Calibrate camera for radionuclide	Met	Not met	Not applicable
10.	Choose and install correct collimator	Met	Not met	Not applicable
11.	Set acquisition parameters correctly	Met	Not met	Not applicable
12.	Enter patient information	Met	Not met	Not applicable
13.	Operate camera efficiently	Met	Not met	Not applicable

PERFORM 3-PHASE BONE IMAGE:

14.	Remove attenuating objects	Met	Not met	Not applicable
15.	Request that patient void bladder	Met	Not met	Not applicable
16.	Position patient correctly	Met	Not met	Not applicable
17.	Compensate for positioning problems	Met	Not met	Not applicable
18.	Place detector at surface of patient	Met	Not met	Not applicable
19.	Perform image efficiently	Met	Not met	Not applicable

COMPLETING THE 3-PHASE BONE IMAGE:

20.	Label the image correctly	Met	Not met	Not applicable
21.	Present study to supervisor	Met	Not met	Not applicable
22.	Prepare room for next patient	Met	Not met	Not applicable

RADIATION / BIOHAZARDS:

23.	Observe precautions throughout study	Met	Not met	Not applicable

Competency Evaluation Bone: Three-Phase Bone Imaging Continued…

PROBLEM SOLVING:

24.	Recognizing problems & handle each appropriately	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student complete this study, I believe that he/she is competent to perform this study with minimal assistance.

Technologist: _____ Date: _____

Competency Evaluation

BRAIN: DYNAMIC IMAGING

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **3** dynamic brain-imaging studies under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

PATIENT CARE:

1.	***** Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3.	Obtain appropriate history	Met	Not met	Not applicable
4.	Perform aseptic IV injection	Met	Not met	Not applicable
5.	Provide appropriate patient care	Met	Not met	Not applicable
6.	Assist in patient transfer	Met	Not met	Not applicable
7.	Provide safe and dignified environment	Met	Not met	Not applicable
8.	Discharge the patient	Met	Not met	Not applicable

INSTRUMENTATION:

9.	Calibrate camera for radionuclide	Met	Not met	Not applicable
10.	Choose and install correct collimator	Met	Not met	Not applicable
11.	Set acquisition parameters correctly	Met	Not met	Not applicable
12.	Enter patient information	Met	Not met	Not applicable
13.	Operate camera efficiently	Met	Not met	Not applicable

PERFORM DYNAMIC BRAIN IMAGE:

14.	Remove attenuating objects	Met	Not met	Not applicable
15.	Request that patient void bladder	Met	Not met	Not applicable
16.	Position patient correctly	Met	Not met	Not applicable
17.	Compensate for positioning problems	Met	Not met	Not applicable
18.	Place detector at surface of patient	Met	Not met	Not applicable
19.	Perform image efficiently	Met	Not met	Not applicable

COMPLETING THE DYNAMIC BRAIN IMAGE:

20.	Process and label the image correctly	Met	Not met	Not applicable
21.	Present study to supervisor	Met	Not met	Not applicable
22.	Prepare room for next patient	Met	Not met	Not applicable

RADIATION / BIOHAZARDS:

23.	Observe precautions throughout study	Met	Not met	Not applicable

PROBLEM SOLVING:

Competency Evaluation Brain: Dynamic Imaging continued…

24.	Recognizing problems & handle each appropriately	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student complete this study, I believe that he/she is competent to perform this study with minimal assistance.

Technologist: _____ Date: _____

Competency Evaluation

BRAIN: PLANAR IMAGING

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **3** planar brain-imaging studies under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

PATIENT CARE:

1.	* Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3.	Obtain appropriate history	Met	Not met	Not applicable
4.	Perform aseptic IV injection	Met	Not met	Not applicable
5.	Provide appropriate patient care	Met	Not met	Not applicable
6.	Assist in patient transfer	Met	Not met	Not applicable
7.	Provide safe and dignified environment	Met	Not met	Not applicable
8.	Discharge the patient	Met	Not met	Not applicable

INSTRUMENTATION:

9.	Calibrate camera for radionuclide	Met	Not met	Not applicable
10.	Choose and install correct collimator	Met	Not met	Not applicable
11.	Set acquisition parameters correctly	Met	Not met	Not applicable
12.	Enter patient information	Met	Not met	Not applicable
13.	Operate camera efficiently	Met	Not met	Not applicable

PERFORM BRAIN IMAGE:

14.	Remove attenuating objects	Met	Not met	Not applicable
15.	Request that patient void bladder	Met	Not met	Not applicable
16.	Position patient correctly	Met	Not met	Not applicable
17.	Compensate for positioning problems	Met	Not met	Not applicable
18.	Place detector at surface of patient	Met	Not met	Not applicable
19.	Perform image efficiently	Met	Not met	Not applicable

COMPLETING THE BRAIN IMAGE:

20.	Label the image correctly	Met	Not met	Not applicable
21.	Present study to supervisor	Met	Not met	Not applicable
22.	Prepare room for next patient	Met	Not met	Not applicable

RADIATION / BIOHAZARDS:

23.	Observe precautions throughout study	Met	Not met	Not applicable

Competency Evaluation Brain: Planar Imaging continued…

PROBLEM SOLVING:

24.	Recognizing problems & handle each appropriately	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student complete this study, I believe that he/she is competent to perform this study with minimal assistance.

Technologist: _____ Date: _____

Competency Evaluation

GI BLEED

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **3** GI Bleed-imaging studies under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

PATIENT CARE:				
1.	* Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3.	Obtain appropriate history	Met	Not met	Not applicable
4.	Draw blood and perform aseptic IV injection	Met	Not met	Not applicable
5.	Provide appropriate patient care	Met	Not met	Not applicable
6.	Assist in patient transfer	Met	Not met	Not applicable
7.	Provide safe and dignified environment	Met	Not met	Not applicable
8.	Discharge the patient	Met	Not met	Not applicable
INSTRUMENTATION:				
9.	Calibrate camera for radionuclide	Met	Not met	Not applicable
10.	Choose and install correct collimator	Met	Not met	Not applicable
11.	Set acquisition parameters correctly	Met	Not met	Not applicable
12.	Enter patient information	Met	Not met	Not applicable
13.	Operate camera efficiently	Met	Not met	Not applicable
PERFORM GI Bleed IMAGE:				
14.	Remove attenuating objects	Met	Not met	Not applicable
15.	Request that patient void bladder	Met	Not met	Not applicable
16.	Position patient correctly	Met	Not met	Not applicable
17.	Compensate for positioning problems	Met	Not met	Not applicable
18.	Place detector at surface of patient	Met	Not met	Not applicable
19.	Perform image efficiently	Met	Not met	Not applicable
COMPLETING THE GI Bleed IMAGE:				
20.	Process and label image correctly	Met	Not met	Not applicable
21.	Present study to supervisor	Met	Not met	Not applicable
22.	Prepare room for next patient	Met	Not met	Not applicable
RADIATION / BIOHAZARDS:				
23.	Observe precautions throughout study	Met	Not met	Not applicable

Competency Evaluation GI Bleed continued…

PROBLEM SOLVING:

24.	Recognizing problems & handle each appropriately	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student complete this study, I believe that he/she is competent to perform this study with minimal assistance.

Technologist: _____ Date: _____

Competency Evaluation

GALLIUM IMAGING

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **3** gallium-imaging studies under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

PATIENT CARE:

1.	***** Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3.	Obtain appropriate history	Met	Not met	Not applicable
4.	Perform aseptic IV injection	Met	Not met	Not applicable
5.	Provide appropriate patient care	Met	Not met	Not applicable
6.	Assist in patient transfer	Met	Not met	Not applicable
7.	Provide safe and dignified environment	Met	Not met	Not applicable
8.	Discharge the patient	Met	Not met	Not applicable

INSTRUMENTATION:

9.	Calibrate camera for radionuclide	Met	Not met	Not applicable
10.	Choose and install correct collimator	Met	Not met	Not applicable
11.	Set acquisition parameters correctly	Met	Not met	Not applicable
12.	Enter patient information	Met	Not met	Not applicable
13.	Operate camera efficiently	Met	Not met	Not applicable

PERFORM GALLIUM IMAGE:

14.	Remove attenuating objects	Met	Not met	Not applicable
15.	Request that patient void bladder	Met	Not met	Not applicable
16.	Position patient correctly	Met	Not met	Not applicable
17.	Compensate for positioning problems	Met	Not met	Not applicable
18.	Place detector at surface of patient	Met	Not met	Not applicable
19.	Perform image efficiently	Met	Not met	Not applicable

COMPLETING THE GALLIUM IMAGE:

20.	Process and label image correctly	Met	Not met	Not applicable
21.	Present study to supervisor	Met	Not met	Not applicable
22.	Prepare room for next patient	Met	Not met	Not applicable

RADIATION / BIOHAZARDS:

23.	Observe precautions throughout study	Met	Not met	Not applicable

Competency Evaluation Gallium Imaging continued…

PROBLEM SOLVING:

24.	Recognizing problems & handle each appropriately	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student complete this study, I believe that he/she is competent to perform this study with minimal assistance.

Technologist: _____ Date: _____

Competency Evaluation

GASTRIC EMPTY SCAN (GETS)

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **3** gastric empty-imaging studies under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

PATIENT CARE:				
1.	***** Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3.	Obtain appropriate history	Met	Not met	Not applicable
4.	Administer dose (solid or liquid)	Met	Not met	Not applicable
5.	Provide appropriate patient care	Met	Not met	Not applicable
6.	Assist in patient transfer	Met	Not met	Not applicable
7.	Provide safe and dignified environment	Met	Not met	Not applicable
8.	Discharge the patient	Met	Not met	Not applicable
INSTRUMENTATION:				
9.	Calibrate camera for radionuclide	Met	Not met	Not applicable
10.	Choose and install correct collimator	Met	Not met	Not applicable
11.	Set acquisition parameters correctly	Met	Not met	Not applicable
12.	Enter patient information	Met	Not met	Not applicable
13.	Operate camera efficiently	Met	Not met	Not applicable
PERFORM GASTRIC EMPTY IMAGE:				
14.	Remove attenuating objects	Met	Not met	Not applicable
15.	Wait appropriate time prior to image	Met	Not met	Not applicable
16.	Position patient correctly	Met	Not met	Not applicable
17.	Compensate for positioning problems	Met	Not met	Not applicable
18.	Place detector at surface of patient	Met	Not met	Not applicable
19.	Perform image efficiently	Met	Not met	Not applicable
COMPLETING THE GASTRIC EMPTY SCAN:				
20.	Process and label the image correctly	Met	Not met	Not applicable
21.	Present study to supervisor	Met	Not met	Not applicable
22.	Prepare room for next patient	Met	Not met	Not applicable
RADIATION / BIOHAZARDS:				
23.	Observe precautions throughout study	Met	Not met	Not applicable

Competency Evaluation Gastric Empty Scans continued…

PROBLEM SOLVING:

24.	Recognizing problems & handle each appropriately	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student complete this study, I believe that he/she is competent to perform this study with minimal assistance.

Technologist: _____ Date: _____

Competency Evaluation

GATED EQUILIBRIUM CARDIAC FUNCTION STUDY (ALSO CALLED ERNA OR MUGA)

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **3** equilibrium cardiac function studies. The technologist evaluating the student should circle the performance level for each item.

PATIENT CARE / PREPARATION:

1.	* Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation) (also verify correct patient preparation for study; rule out contraindications)	Met	Not met	Not applicable
3.	Obtain appropriate history (also verify correct patient preparation For study; rule out contraindications)	Met	Not met	Not applicable
4.	Administer cold "PYP" IV using aseptic technique	Met	Not met	Not applicable
5.	Administer radiopharmaceutical at at appropriate time using aseptic technique	Met	Not met	Not applicable
6.	Prepare sites and place ECG leads on patient	Met	Not met	Not applicable
7.	Provide safe and dignified environment	Met	Not met	Not applicable
8.	Observe universal and radiation safety precautions throughout test	Met	Not met	Not applicable
9.	Assist patient to imaging table	Met	Not met	Not applicable

INSTRUMENTATION:

10.	Calibrate camera for radionuclide	Met	Not met	Not applicable
11.	Choose and install correct collimator	Met	Not met	Not applicable
12.	Choose correct acquisition protocol	Met	Not met	Not applicable
13.	Enter patient information	Met	Not met	Not applicable
14.	Operate camera efficiently	Met	Not met	Not applicable

PERFORM IMAGING:

15.	Remove attenuating materials	Met	Not met	Not applicable
16.	Position patient correctly	Met	Not met	Not applicable
	Ensure patient comfort to minimize motion; compensate for positioning problems	Met	Not met	Not applicable

Competency Evaluation Gated Equilibrium Cardiac Function Study Continued…

17. Place detector at appropriate distance	Met	Not met	Not applicable
18. Perform required views	Met	Not met	Not applicable

COMPLETING THE STUDY AND COMPUTER PROCESSING:

19. Choose the correct computer protocol	Met	Not met	Not applicable
20. Choose correct patient data	Met	Not met	Not applicable
21. Draw appropriate background ROI(s)	Met	Not met	Not applicable
22. Draw appropriate organ(s) ROI(s)	Met	Not met	Not applicable
23. Apply appropriate smoothing filters	Met	Not met	Not applicable
24. Generate time/activity curve	Met	Not met	Not applicable
25. Perform other quantitation, as required	Met	Not met	Not applicable
26. Display data in appropriate format	Met	Not met	Not applicable
27. Label data/images with appropriate information	Met	Not met	Not applicable
28. Place data/images on hard copy if required.	Met	Not met	Not applicable
29. Review data for technical quality and completeness	Met	Not met	Not applicable
30. Present study to supervisor	Met	Not met	Not applicable
31. Discharge the patient	Met	Not met	Not applicable
32. Prepare room for next patient	Met	Not met	Not applicable

RADIATION / BIOHAZARDS:

33. Observe precautions throughout study	Met	Not met	Not applicable

PROBLEM SOLVING:

34. Recognize problems & handle each appropriately	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student, I believe that he/she is competent to perform this study with minimal assistance.

Technologist:_____Date:_____

Competency Evaluation

Hepatobiliary Imaging

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **3** hepatobiliary studies under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

PATIENT CARE:

1.	***** Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3.	Obtain appropriate history (also verify correct patient preparation for study; rule out contraindications)	Met	Not met	Not applicable
4.	Perform aseptic IV injection	Met	Not met	Not applicable
5.	Provide appropriate patient care	Met	Not met	Not applicable
6.	Assist in patient transfer	Met	Not met	Not applicable
7.	Provide safe and dignified environment	Met	Not met	Not applicable
8.	Discharge the patient	Met	Not met	Not applicable

INSTRUMENTATION:

9.	Calibrate camera for radionuclide	Met	Not met	Not applicable
10.	Choose and install correct collimator	Met	Not met	Not applicable
11.	Set acquisition parameters correctly	Met	Not met	Not applicable
12.	Enter patient information	Met	Not met	Not applicable
13.	Operate camera efficiently	Met	Not met	Not applicable

PERFORM HEPATOBILIARY IMAGING:

14.	Remove attenuating objects	Met	Not met	Not applicable
15.	Position patient correctly	Met	Not met	Not applicable
16.	Compensate for positioning problems	Met	Not met	Not applicable
17.	Place detector at surface of patient	Met	Not met	Not applicable
18.	Perform imaging efficiently	Met	Not met	Not applicable
19.	Determine necessity of delayed images &/or administration of CCK or morphine	Met	Not met	Not applicable
20.	Assist in the administration of CCK or morphine	Met	Not met	Not applicable
21.	Perform additional images, as needed	Met	Not met	Not applicable

COMPLETING THE STUDY:

22.	Process and label the image correctly	Met	Not met	Not applicable
23.	Present study to supervisor	Met	Not met	Not applicable
24.	Prepare room for next patient	Met	Not met	Not applicable

Competency Evaluation Hepatobiliary Imaging Continued…

RADIATION / BIOHAZARDS:			
25. Observe precautions throughout study	Met	Not met	Not applicable
PROBLEM SOLVING:			
26. Recognize problems & handle each appropriately	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student complete this study, I believe that he/she is competent to perform this study with minimal assistance.

Technologist:_____ Date: _____

Competency Evaluation

Liver SPECT Imaging

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **3** liver SPECT-imaging studies under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

PATIENT CARE:

1.	***** Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3.	Obtain appropriate history	Met	Not met	Not applicable
4.	Perform aseptic IV injection	Met	Not met	Not applicable
5.	Provide appropriate patient care	Met	Not met	Not applicable
6.	Assist in patient transfer	Met	Not met	Not applicable
7.	Provide safe and dignified environment	Met	Not met	Not applicable
8.	Discharge the patient	Met	Not met	Not applicable

INSTRUMENTATION:

9.	Calibrate camera for radionuclide	Met	Not met	Not applicable
10.	Choose and install correct collimator	Met	Not met	Not applicable
11.	Set acquisition parameters correctly	Met	Not met	Not applicable
12.	Enter patient information	Met	Not met	Not applicable
13.	Operate camera efficiently	Met	Not met	Not applicable

PERFORM LIVER SPECT IMAGE:

14.	Remove attenuating objects	Met	Not met	Not applicable
15.	Request that patient void bladder	Met	Not met	Not applicable
16.	Position patient correctly	Met	Not met	Not applicable
17.	Compensate for positioning problems	Met	Not met	Not applicable
18.	Place detector at surface of patient	Met	Not met	Not applicable
19.	Perform SPECT image efficiently	Met	Not met	Not applicable

COMPLETING THE LIVER SPECT IMAGE:

20.	Process and label the image correctly	Met	Not met	Not applicable
21.	Present study to supervisor	Met	Not met	Not applicable
22.	Prepare room for next patient	Met	Not met	Not applicable

RADIATION / BIOHAZARDS:

23.	Observe precautions throughout study	Met	Not met	Not applicable

Competency Evaluation Liver SPECT Imaging continued…

PROBLEM SOLVING:

24.	Recognizing problems & handle each appropriately	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student complete this study, I believe that he/she is competent to perform this study with minimal assistance.

Technologist: _____ Date: _____

Competency Evaluation

Lung Perfusion Imaging

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **3** lung perfusion studies under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

PATIENT CARE:				
1.	Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3.	Obtain appropriate history (also verify correct patient preparation for study; rule out contraindications)	Met	Not met	Not applicable
4.	Perform aseptic IV injection	Met	Not met	Not applicable
5.	Provide appropriate patient care	Met	Not met	Not applicable
6.	Assist in patient transfer	Met	Not met	Not applicable
7.	Provide safe and dignified environment	Met	Not met	Not applicable
8.	Discharge the patient	Met	Not met	Not applicable
INSTRUMENTATION:				
9.	Calibrate camera for radionuclide	Met	Not met	Not applicable
10.	Choose and install correct collimator	Met	Not met	Not applicable
11.	Set acquisition parameters correctly	Met	Not met	Not applicable
12.	Enter patient information	Met	Not met	Not applicable
13.	Operate camera efficiently	Met	Not met	Not applicable
PERFORM IMAGING:				
14.	Remove attenuating objects	Met	Not met	Not applicable
15.	Position patient correctly	Met	Not met	Not applicable
16.	Compensate for positioning problems	Met	Not met	Not applicable
17.	Place detector at surface of patient	Met	Not met	Not applicable
18.	Perform imaging efficiently			
COMPLETING THE STUDY:				
19.	Process and label the image correctly	Met	Not met	Not applicable
20.	Present study to supervisor	Met	Not met	Not applicable
21.	Prepare room for next patient	Met	Not met	Not applicable
RADIATION / BIOHAZARDS:				
22.	Observe precautions throughout study	Met	Not met	Not applicable

Competency Evaluation Lung Perfusion Imaging continued…

PROBLEM SOLVING:

23.	Recognize problems & handle each appropriately	Met	Not met	Not applicable

**** Failure to perform this task constitutes an automatic failure of this competency.***

Comments:

After observing the student complete this study, I believe that he/she is competent to perform this study with minimal assistance.

Technologist: _____ Date: _____

Competency Evaluation

Lung Ventilation Imaging (Gas or Aerosol)

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **3** lung ventilation studies under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

PATIENT CARE:				
1.	***** Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3.	Obtain appropriate history (also verify correct patient preparation for study; rule out contraindications)	Met	Not met	Not applicable
4.	Provide appropriate patient care	Met	Not met	Not applicable
5.	Assist in patient transfer	Met	Not met	Not applicable
6.	Provide safe and dignified environment	Met	Not met	Not applicable
7.	Discharge the patient	Met	Not met	Not applicable
INSTRUMENTATION:				
8.	Calibrate camera for radionuclide	Met	Not met	Not applicable
9.	Choose and install correct collimator	Met	Not met	Not applicable
10.	Set acquisition parameters correctly	Met	Not met	Not applicable
11.	Enter patient information	Met	Not met	Not applicable
12.	Operate camera efficiently	Met	Not met	Not applicable
13.	Set up & operate xenon or aerosol administration apparatus	Met	Not met	Not applicable
PERFORM IMAGING:				
14.	Remove attenuating objects	Met	Not met	Not applicable
15.	Instruct patient about administration apparatus	Met	Not met	Not applicable
16.	Position patient correctly (includes placement of gas or aerosol administration apparatus)	Met	Not met	Not applicable
17.	Compensate for positioning problems	Met	Not met	Not applicable
18.	Place detector at surface of patient	Met	Not met	Not applicable
19.	Perform imaging efficiently	Met	Not met	Not applicable
COMPLETING THE STUDY:				
20.	Process and label the image correctly	Met	Not met	Not applicable
21.	Present study to supervisor	Met	Not met	Not applicable
22.	Prepare room for next patient	Met	Not met	Not applicable

Competency Evaluation Lung Ventilation Imaging continued…

RADIATION / BIOHAZARDS:			
23. Observe precautions throughout study	Met	Not met	Not applicable
PROBLEM SOLVING:			
24. Recognize problems & handle each appropriately	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student complete this study, I believe that he/she is competent to perform this study with minimal assistance.

Technologist: _____ Date: _____

Competency Evaluation

Lymphoscintigraphy

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **3** lymphoscintigraphy studies under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

PATIENT CARE:				
1.	***** Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3.	Obtain appropriate history (also verify correct patient preparation for study; rule out contraindications)	Met	Not met	Not applicable
4.	Perform or assist in injection	Met	Not met	Not applicable
5.	Provide appropriate patient care	Met	Not met	Not applicable
6.	Assist in patient transfer	Met	Not met	Not applicable
7.	Provide safe and dignified environment	Met	Not met	Not applicable
8.	Discharge the patient	Met	Not met	Not applicable
INSTRUMENTATION:				
9.	Calibrate camera for radionuclide	Met	Not met	Not applicable
10.	Choose and install correct collimator	Met	Not met	Not applicable
11.	Set acquisition parameters correctly	Met	Not met	Not applicable
12.	Enter patient information	Met	Not met	Not applicable
13.	Operate camera efficiently	Met	Not met	Not applicable
PERFORM LYMPHOSCINTIGRAPHY IMAGING:				
14.	Remove attenuating objects	Met	Not met	Not applicable
15.	Position patient correctly	Met	Not met	Not applicable
16.	Compensate for positioning problems	Met	Not met	Not applicable
17.	Place detector at surface of patient	Met	Not met	Not applicable
18.	Perform imaging efficiently	Met	Not met	Not applicable
19.	Determine necessity of delayed images	Met	Not met	Not applicable
20.	Perform additional images, as needed	Met	Not met	Not applicable
COMPLETING THE STUDY:				
21.	Process and label the image correctly	Met	Not met	Not applicable
22.	Present study to supervisor	Met	Not met	Not applicable
23.	Prepare room for next patient	Met	Not met	Not applicable
RADIATION / BIOHAZARDS:				
24.	Observe precautions throughout study	Met	Not met	Not applicable

Competency Evaluation Lymphoscintigraphy Imaging continued…

PROBLEM SOLVING:

25.	Recognize problems & handle each appropriately	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student complete this study, I believe that he/she is competent to perform this study with minimal assistance.

Technologist:_____ Date: _____

Competency Evaluation

Meckel's Diverticulum Imaging

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **3** Meckel's-imaging studies under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

PATIENT CARE:				
1.	***** Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3.	Obtain appropriate history	Met	Not met	Not applicable
4.	Draw blood and perform aseptic IV injection	Met	Not met	Not applicable
5.	Provide appropriate patient care	Met	Not met	Not applicable
6.	Assist in patient transfer	Met	Not met	Not applicable
7.	Provide safe and dignified environment	Met	Not met	Not applicable
8.	Discharge the patient	Met	Not met	Not applicable
INSTRUMENTATION:				
9.	Calibrate camera for radionuclide	Met	Not met	Not applicable
10.	Choose and install correct collimator	Met	Not met	Not applicable
11.	Set acquisition parameters correctly	Met	Not met	Not applicable
12.	Enter patient information	Met	Not met	Not applicable
13.	Operate camera efficiently	Met	Not met	Not applicable
PERFORM MECKEL'S IMAGE:				
14.	Remove attenuating objects	Met	Not met	Not applicable
15.	Request that patient void bladder	Met	Not met	Not applicable
16.	Position patient correctly	Met	Not met	Not applicable
17.	Compensate for positioning problems	Met	Not met	Not applicable
18.	Place detector at surface of patient	Met	Not met	Not applicable
19.	Perform image efficiently	Met	Not met	Not applicable
COMPLETING THE MECKEL'S IMAGE:				
20.	Process and label the image correctly	Met	Not met	Not applicable
21.	Present study to supervisor	Met	Not met	Not applicable
22.	Prepare room for next patient	Met	Not met	Not applicable
RADIATION / BIOHAZARDS:				
23.	Observe precautions throughout study	Met	Not met	Not applicable

Competency Evaluation Meckel's Diverticulum Imaging…

PROBLEM SOLVING:

24.	Recognizing problems & handle each appropriately	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student complete this study, I believe that he/she is competent to perform this study with minimal assistance.

Technologist: _____ Date: _____

Competency Evaluation

Parathyroid Imaging

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **3** parathyroid-imaging studies under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

PATIENT CARE:

1.	***** Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3.	Obtain appropriate history	Met	Not met	Not applicable
4.	Perform aseptic IV injection	Met	Not met	Not applicable
5.	Provide appropriate patient care	Met	Not met	Not applicable
6.	Assist in patient transfer	Met	Not met	Not applicable
7.	Provide safe and dignified environment	Met	Not met	Not applicable
8.	Discharge the patient	Met	Not met	Not applicable

INSTRUMENTATION:

9.	Calibrate camera for radionuclide	Met	Not met	Not applicable
10.	Choose and install correct collimator	Met	Not met	Not applicable
11.	Set acquisition parameters correctly	Met	Not met	Not applicable
12.	Enter patient information	Met	Not met	Not applicable
13.	Operate camera efficiently	Met	Not met	Not applicable

PERFORM PARATHYROID IMAGE:

14.	Remove attenuating objects	Met	Not met	Not applicable
15.	Request that patient void bladder	Met	Not met	Not applicable
16.	Position patient correctly	Met	Not met	Not applicable
17.	Compensate for positioning problems	Met	Not met	Not applicable
18.	Place detector at surface of patient	Met	Not met	Not applicable
19.	Perform image efficiently	Met	Not met	Not applicable

COMPLETING THE PARATHYROID IMAGE:

20.	Process and label the image correctly	Met	Not met	Not applicable
21.	Present study to supervisor	Met	Not met	Not applicable
22.	Prepare room for next patient	Met	Not met	Not applicable

RADIATION / BIOHAZARDS:

23.	Observe precautions throughout study	Met	Not met	Not applicable

Competency Evaluation Parathyroid Imaging continued…

PROBLEM SOLVING:

24.	Recognizing problems & handle each appropriately	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student complete this study, I believe that he/she is competent to perform this study with minimal assistance.

Technologist: _____ Date: _____

Competency Evaluation

Renal Function Study

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **3** renal function studies under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

PATIENT CARE:				
1.	*Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3.	Obtain appropriate history (also verify correct patient preparation for study; rule out contraindications	Met	Not met	Not applicable
4.	Perform aseptic IV injection	Met	Not met	Not applicable
5.	Provide appropriate patient care	Met	Not met	Not applicable
6.	Assist in patient transfer	Met	Not met	Not applicable
7.	Provide safe and dignified environment	Met	Not met	Not applicable
8.	Discharge the patient	Met	Not met	Not applicable
INSTRUMENTATION:				
9.	Calibrate camera for radionuclide	Met	Not met	Not applicable
10.	Choose and install correct collimator	Met	Not met	Not applicable
11.	Set acquisition parameters correctly	Met	Not met	Not applicable
12.	Enter patient information	Met	Not met	Not applicable
14.	Operate camera efficiently	Met	Not met	Not applicable
PERFORM RENAL FUNCTION STUDY:				
15.	Remove attenuating objects	Met	Not met	Not applicable
16.	Position patient correctly	Met	Not met	Not applicable
17.	Compensate for positioning problems	Met	Not met	Not applicable
18.	Place detector at surface of patient	Met	Not met	Not applicable
19.	Perform imaging efficiently	Met	Not met	Not applicable
20.	Determine necessity for delayed images &/or administration of furosemide	Met	Not met	Not applicable
21.	Assist in the administration of furosemide	Met	Not met	Not applicable
22.	Perform additional images, as needed	Met	Not met	Not applicable
23.	Collect blood/urine samples at appropriate times	Met	Not met	Not applicable
COMPLETING THE STUDY AND COMPUTER PROCESSING:				
24.	Choose the correct computer protocol	Met	Not met	Not applicable

Competency Evaluation Renal Function Study Continued…

25.	Choose correct patient data	Met	Not met	Not applicable
26.	Draw appropriate background ROI(s)	Met	Not met	Not applicable
27.	Draw appropriate organ(s) ROI(s)	Met	Not met	Not applicable
28.	Apply appropriate smoothing filters	Met	Not met	Not applicable
29.	Generate time/activity curve	Met	Not met	Not applicable
30.	Perform other quantitation, as required	Met	Not met	Not applicable
31.	Display data in appropriate format	Met	Not met	Not applicable
32.	Label data/images with appropriate information	Met	Not met	Not applicable
33.	Place data/images on hard copy, if required	Met	Not met	Not applicable
34.	Review data for technical quality and completeness	Met	Not met	Not applicable
35.	Present study to supervisor	Met	Not met	Not applicable
36.	Prepare room for next patient	Met	Not met	Not applicable

RADIATION / BIOHAZARDS:

37.	Observe precautions throughout study	Met	Not met	Not applicable

PROBLEM SOLVING:

38.	Recognize problems & handle each appropriately	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student complete this study, I believe that he/she is competent to perform this study with minimal assistance.

Technologist:_____Date_____

Competency Evaluation

Thyroid Imaging

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **3** thyroid images under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

PATIENT CARE:				
1.	*Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3.	Obtain appropriate history (also verify correct patient preparation for study; rule out contraindications)	Met	Not met	Not applicable
4.	Perform aseptic IV injection or administer capsule	Met	Not met	Not applicable
5.	Provide appropriate patient care	Met	Not met	Not applicable
6.	Assist in patient transfer	Met	Not met	Not applicable
7.	Provide safe and dignified environment	Met	Not met	Not applicable
INSTRUMENTATION:				
8.	Calibrate camera for radionuclide	Met	Not met	Not applicable
9.	Choose and install correct collimator	Met	Not met	Not applicable
10.	Set acquisition parameters correctly	Met	Not met	Not applicable
11.	Enter patient information	Met	Not met	Not applicable
12.	Operate camera efficiently	Met	Not met	Not applicable
PERFORM IMAGING:				
13.	Wait appropriate time following tracer administration	Met	Not met	Not applicable
14.	Remove attenuating objects	Met	Not met	Not applicable
15.	Position patient correctly	Met	Not met	Not applicable
16.	Compensate for positioning problems	Met	Not met	Not applicable
17.	Place detector at correct distance from patient	Met	Not met	Not applicable
18.	Perform imaging efficiently	Met	Not met	Not applicable
19.	Perform additional images, as needed	Met	Not met	Not applicable
COMPLETING THE STUDY:				
20.	Process and label the images correctly	Met	Not met	Not applicable
21.	Place in hard copy format, if required	Met	Not met	Not applicable
22.	Present study to supervisor	Met	Not met	Not applicable
23.	Prepare room for next patient	Met	Not met	Not applicable

Competency Evaluation Thyroid Imaging Continued…

RADIATION / BIOHAZARDS:

24.	Observe precautions throughout study	Met	Not met	Not applicable

PROBLEM SOLVING:

25.	Recognize problems & handle each appropriately	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student complete this study, I believe that he/she is competent to perform this study with minimal assistance.

Technologist: _____ Date: _____

Competency Evaluation

Thyroid Uptake

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **3** thyroid uptakes under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

PATIENT CARE:				
1.	***** Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3.	Obtain appropriate history (also verify correct patient preparation for study; rule out contraindications)	Met	Not met	Not applicable
4.	Administer capsule	Met	Not met	Not applicable
5.	Provide appropriate patient care	Met	Not met	Not applicable
6.	Assist in patient transfer	Met	Not met	Not applicable
7.	Provide safe and dignified environment	Met	Not met	Not applicable
INSTRUMENTATION:				
8.	Calibrate uptake probe for radionuclide	Met	Not met	Not applicable
9.	Acquire room background	Met	Not met	Not applicable
PERFORM UPTAKE:				
10.	Wait appropriate time following tracer administration	Met	Not met	Not applicable
11.	Remove attenuating objects	Met	Not met	Not applicable
12.	Position patient correctly	Met	Not met	Not applicable
13.	Place detector at correct distance from patient	Met	Not met	Not applicable
14.	Collect neck and thigh counts for appropriate time interval	Met	Not met	Not applicable
15.	Collect standard counts for appropriate time interval	Met	Not met	Not applicable
COMPLETING THE STUDY:				
16.	Label data correctly	Met	Not met	Not applicable
17.	Perform uptake calculation correctly	Met	Not met	Not applicable
18.	Present data to supervisor	Met	Not met	Not applicable
19.	Discharge the patient	Met	Not met	Not applicable

Competency Evaluation Thyroid Uptake continued…

RADIATION / BIOHAZARDS:

20. Observe precautions throughout study	Met	Not met	Not applicable

PROBLEM SOLVING:

21. Recognize problems & handle each appropriately	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student complete this study, I believe that he/she is competent to perform this study with minimal assistance.

Technologist: _____ Date: _____

Competency Evaluation

Thyroid: Ablation Therapeutic Procedure

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **3** thyroid: ablation procedures under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

PATIENT CARE:

1.	***** Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3.	Obtain appropriate history	Met	Not met	Not applicable
4.	Ensure patient is NOT pregnant	Met	Not met	Not applicable
5.	Provide appropriate patient care	Met	Not met	Not applicable
6.	Answer all patient questions	Met	Not met	Not applicable
7.	Provide safe and dignified environment	Met	Not met	Not applicable
8.	Discharge the patient	Met	Not met	Not applicable

ADMINISTRATION:

9.	Properly paper the patient's room			
10.	Verify the dose with a witness	Met	Not met	Not applicable
11.	Administer the dose	Met	Not met	Not applicable
12.	Attach proper signage to doors	Met	Not met	Not applicable
13.	Monitor the patient's exposure levels	Met	Not met	Not applicable

RADIATION / BIOHAZARD

14.	Observe precautions throughout study	Met	Not met	Not applicable

PROBLEM SOLVING:

15.	Recognizing problems & handle each appropriately	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student complete this study, I believe that he/she is competent to perform this study with minimal assistance.

Technologist: _____ Date: _____

Competency Evaluation

Thyroid: Hyperthyroidism

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **3** thyroid: hyperthyroidism procedures under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

PATIENT CARE:

1.	***** Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3.	Obtain appropriate history	Met	Not met	Not applicable
4.	Ensure patient is NOT pregnant	Met	Not met	Not applicable
5.	Provide appropriate patient care	Met	Not met	Not applicable
6.	Answer all patient questions	Met	Not met	Not applicable
7.	Provide safe and dignified environment	Met	Not met	Not applicable
8.	Discharge the patient	Met	Not met	Not applicable

ADMINISTRATION:

9.	Verify the dose with a witness	Met	Not met	Not applicable
10.	Administer the dos	Met	Not met	Not applicable

RADIATION / BIOHAZARDS:

11.	Observe precautions throughout study	Met	Not met	Not applicable

PROBLEM SOLVING:

12.	Recognizing problems & handle each appropriately	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student complete this study, I believe that he/she is competent to perform this study with minimal assistance.

Technologist: _____ Date: _____

Competency Evaluation

Tumor SPECT Imaging

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **3** tumor SPECT-imaging studies under the supervision of a technologist. The technologist evaluation the student should circle the performance level for each item.

PATIENT CARE:

1.	***** Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3.	Obtain appropriate history	Met	Not met	Not applicable
4.	Perform aseptic IV injection	Met	Not met	Not applicable
5.	Provide appropriate patient care	Met	Not met	Not applicable
6.	Assist in patient transfer	Met	Not met	Not applicable
7.	Provide safe and dignified environment	Met	Not met	Not applicable
8.	Discharge the patient	Met	Not met	Not applicable

INSTRUMENTATION:

9.	Calibrate camera for radionuclide	Met	Not met	Not applicable
10.	Choose and install correct collimator	Met	Not met	Not applicable
11.	Set acquisition parameters correctly	Met	Not met	Not applicable
12.	Enter patient information	Met	Not met	Not applicable
13.	Choose firm, intensity, display	Met	Not met	Not applicable
14.	Operate camera efficiently	Met	Not met	Not applicable

PERFORM TUMOR SPECT IMAGE:

15.	Remove attenuating objects	Met	Not met	Not applicable
16.	Request that patient void bladder	Met	Not met	Not applicable
17.	Position patient correctly	Met	Not met	Not applicable
18.	Compensate for positioning problems	Met	Not met	Not applicable
19.	Place detector at surface of patient	Met	Not met	Not applicable
20.	Perform SPECT image efficiently	Met	Not met	Not applicable

COMPLETING THE TUMOPR SPECT IMAGE:

21.	Film Study	Met	Not met	Not applicable
22.	Label film correctly	Met	Not met	Not applicable
23.	Present study to supervisor	Met	Not met	Not applicable
24.	Prepare room for next patient	Met	Not met	Not applicable

RADIATION/BIOHAZARDS:

25.	Observe precautions throughout study	Met	Not met	Not applicable

Competency Evaluation Tumor SPECT Imaging continued…

PROBLEM SOLVING:

26.	Recognizing problems & handle each appropriately	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student complete this study, I believe that he/she is competent to perform this study with minimal assistance.

Technologist: _____ Date: _____

Competency Evaluation

White Blood Cell Labeling Infection Imaging

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **3** white blood cell labeling infection imaging studies under the supervision of a technologist. The technologist evaluation the student should circle the performance level for each item.

PATIENT CARE:				
1.	***** Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3.	Obtain appropriate history	Met	Not met	Not applicable
4.	Perform aseptic IV blood draw	Met	Not met	Not applicable
5.	*Label blood product with patient name and information	Met	Not met	Not applicable
6.	*Verify patient identification matches information on white blood cell product	Met	Not met	Not applicable
7.	Perform aseptic IV injection of tagged white blood cells	Met	Not met	Not applicable
8.	Provide appropriate patient care	Met	Not met	Not applicable
9.	Assist in patient transfer	Met	Not met	Not applicable
10.	Provide safe and dignified environment	Met	Not met	Not applicable
11.	Discharge the patient	Met	Not met	Not applicable
INSTRUMENTATION:				
12.	Calibrate camera for radionuclide	Met	Not met	Not applicable
13.	Choose and install correct collimator	Met	Not met	Not applicable
14.	Set acquisition parameters correctly	Met	Not met	Not applicable
15.	Enter patient information	Met	Not met	Not applicable
16.	Operate camera efficiently	Met	Not met	Not applicable
PERFORM WHITE BLOOD CELL IMAGE:				
17.	Remove attenuating objects	Met	Not met	Not applicable
18.	Position patient correctly	Met	Not met	Not applicable
19.	Compensate for positioning problems	Met	Not met	Not applicable
20.	Place detector at surface of patient	Met	Not met	Not applicable
21.	Perform image efficiently	Met	Not met	Not applicable
COMPLETING WHITE BLOOD CELL IMAGE:				
22.	Process and label image correctly	Met	Not met	Not applicable
23.	Present study to supervisor	Met	Not met	Not applicable
24.	Prepare room for next patient	Met	Not met	Not applicable

Competency Evaluation White Blood Labeling Infection Imaging continued…

RADIATION/BIOHAZARDS:

25. Observe precautions throughout study	Met	Not met	Not applicable

PROBLEM SOLVING:

26. Recognizing problems & handle each appropriately	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student complete this study, I believe that he/she is competent to perform this study with minimal assistance.

Technologist: _____ Date: _____

COMPETENCIES:

NUCLEAR CARDIOLOGY

Competency Evaluation

Stress Test

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have participated in at least **5** stress tests. The technologist evaluating the student should circle the performance level for each item.

1.	***** Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3.	Obtain appropriate history (also verify correct patient preparation for study; rule out contraindications)	Met	Not met	Not applicable
4.	Establish IV line	Met	Not met	Not applicable
5.	Prepare sites and place ECG leads on patient	Met	Not met	Not applicable
6.	Obtain baseline blood pressure, pulse, and ECG tracing	Met	Not met	Not applicable
7.	Administer radiopharmaceutical when directed during stress test	Met	Not met	Not applicable
8.	Provide safe and dignified environment	Met	Not met	Not applicable
9.	Observe universal and radiation safety precautions throughout test	Met	Not met	Not applicable
10.	Assist patient to imaging table	Met	Not met	Not applicable
11.	Prepare room for next patient	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student complete this study, I believe that he/she is competent to participate in stress testing with minimal assistance.

Technologist: _____ Date: _____

Competency Evaluation

Myocardial Perfusion Imaging and Tomographic Processing

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have participated in at least **5** stress/rest tomographic myocardial perfusion studies. The technologist evaluating the student should circle the performance level for each item.

PATIENT CARE:

1.	***** Verify patient identification and written orders for study	Met	Not met	Not applicable
2.	Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3.	Obtain appropriate history (also verify correct patient preparation for study; rule out contraindications)	Met	Not met	Not applicable
4.	Administer radiopharmaceutical for rest images at appropriate time	Met	Not met	Not applicable
5.	Provide safe and dignified environment	Met	Not met	Not applicable
6.	Assist patient to imaging table	Met	Not met	Not applicable

INSTRUMENTATION

7.	Calibrate camera for radionuclide	Met	Not met	Not applicable
8.	Choose and install correct collimator	Met	Not met	Not applicable
9.	Set acquisition parameters correctly	Met	Not met	Not applicable
10.	Enter patient information	Met	Not met	Not applicable
11.	Operate camera efficiently	Met	Not met	Not applicable

PERFORM IMAGING:

12.	Remove attenuating materials	Met	Not met	Not applicable
13.	Position patient correctly	Met	Not met	Not applicable
14.	Ensure patient comfort to minimize motion	Met	Not met	Not applicable
15.	Place detector at appropriate distance	Met	Not met	Not applicable
16.	Perform second set of images (rest or stress) using same acquisition parameters as first	Met	Not met	Not applicable

PROCESSING

17.	Choose the correct computer protocol	Met	Not met	Not applicable
18.	Choose correct patient data	Met	Not met	Not applicable
19.	Choose area to be reconstructed into transaxial slices	Met	Not met	Not applicable
20.	Apply appropriate filters	Met	Not met	Not applicable

Competency Evaluation Myocardial Perfusion Imaging and Tomographic Processing Continued…

21. Draw angles on transaxial and vertical long axes to reorient data	Met	Not met	Not applicable
22. Review representative slices in 3 planes to ensure correct angles were drawn	Met	Not met	Not applicable
23. Repeat 3-6 second data set	Met	Not met	Not applicable
24. Perform quantitation, if required	Met	Not met	Not applicable
25. Display rest/stress slices in appropriate format	Met	Not met	Not applicable
26. Label images with appropriate information	Met	Not met	Not applicable
27. Place images on hard copy, if required	Met	Not met	Not applicable
28. Label film with appropriate information	Met	Not met	Not applicable

COMPLETING THE STUDY:

29. Discharge the patient	Met	Not met	Not applicable
30. Prepare room for next patient	Met	Not met	Not applicable

RADIATION / BIOHAZARDS:

31. Observe precautions throughout study	Met	Not met	Not applicable

PROBLEM SOLVING:

32. Recognize problems & handle each appropriately	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student complete this study, I believe that he/she is competent to perform tomographic myocardial imaging with minimal assistance.

Technologist: _____ Date: _____

Competency Evaluation

Intravenous Catheter Placement

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have processed independently at least **8** intravenous catheter placements under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

This is an optional competency that can be obtained at clinical sites allowing students to practice IV catheter placement.

1.	***** Verify written orders for the study	Met	Not met	Not applicable
2.	***** Verify patient identification	Met	Not met	Not applicable
3.	Use effective communication skills	Met	Not met	Not applicable
4.	Assemble catheter materials (proper catheter size/gauge, gauze, alcohol, tape, saline bag or syringe with bubbles properly "bled" through line or syringe so that no air pockets remain)	Met	Not met	Not applicable
5.	Choose appropriate site (position, assessment)	Met	Not met	Not applicable
6.	***** Wear gloves	Met	Not met	Not applicable
7.	Place tourniquet correctly (occlude vein; 2-3 in. above site)	Met	Not met	Not applicable
8.	***** Use appropriate aseptic technique (alcohol prep used to swab site in spiral inward to outward motion; re-swab if repeat palpitation)	Met	Not met	Not applicable
9.	Handle catheter proficiently (bevel up, anchor vein, insert into vein at shallow depth, smooth entry, catheter penetrates top wall of vein with sufficient depth and look for "flash back" of blood into catheter unit)	Met	Not met	Not applicable
10.	Thread catheter into vein (push sheath of catheter into vein watching for possible kinks)	Met	Not met	Not applicable
11.	Remove catheter needle	Met	Not met	Not applicable
12.	Attach tubing and/or syringe to catheter bulb	Met	Not met	Not applicable
13.	Open saline or test syringe for patient venous access	Met	Not met	Not applicable
14.	***** Dispose of catheter needle in appropriate Sharps container	Met	Not met	Not applicable
15.	Securely tape catheter placement to patient	Met	Not met	Not applicable

Competency Evaluation IV Catheter Placement continued…

16. Adjust flow of saline to patient	Met	Not met	Not applicable
17. ***** Demonstrate proper universal precautions techniques throughout procedure	Met	Not met	Not applicable

***Failure to perform these tasks constitutes an automatic failure of this competency. Student must complete an additional 8 intravenous catheter placements under the supervision of a technologist before attempting the competency evaluation a second time.**

Comments:

After observing the student complete this study, I believe that he/she is competent to perform an intravenous catheter placement independently.

Technologist: _____ Date: _____

Competency Evaluation

Attenuation Correction

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have processed independently at least **5** attenuation corrections under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

PATIENT CARE:

1. *Verify patient identification and written orders for study	Met	Not met	Not applicable
2. Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3. Provide appropriate patient care	Met	Not met	Not applicable
4. Assist in patient transfer	Met	Not met	Not applicable
5. Provide safe and dignified environment	Met	Not met	Not applicable

INSTRUMENTATION:

6 Calibrate camera for radioisotope	Met	Not met	Not applicable
7. Choose and install correct collimator	Met	Not met	Not applicable
8. Set acquisition parameters correctly	Met	Not met	Not applicable
9. Choose the correct computer protocol	Met	Not met	Not applicable
10. Choose correct patient data	Met	Not met	Not applicable
11. Choose area to be corrected	Met	Not met	Not applicable
12. Apply appropriate filters	Met	Not met	Not applicable
13. Enter patient information	Met	Not met	Not applicable
14. Choose display	Met	Not met	Not applicable
15. Operate camera efficiently	Met	Not met	Not applicable
16. Label images with appropriate information	Met	Not met	Not applicable
17. Place images on hard copy, if required	Met	Not met	Not applicable
18. Label images with appropriate information	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student using attenuation correction, I believe that he/she is competent to perform such processing with minimal assistance.

Technologist: _____ Date: _____

RADIOPHARMACY

UAB Nuclear Medicine Technology Program

Radiopharmacy Checklist

STUDENT: _____ DATE: _____

CLINICAL INSTRUCTOR: _____

	Performed	Not Performed	N/A	Comments
GENERATOR ELUTION/QC				
1. Elutes generator properly				
2. Assays eluate				
3. Calculates eluate concentration				
4. Performs Al^{+3} testing				
5. Performs Mo-99 breakthrough test				
6. Calculates radionuclidic purity correctly				
RADIOPHARMACEUTICAL QC				
1. Performs chromatography on radiopharmaceuticals				
2. Calculates radiochemical purity correctly				
UNIT DOSE PREPARATION				
1. Withdraws appropriate volume/activity				
2. Uses proper aseptic technique				
3. Assays dose				
4. Labels dose correctly				
RADIATION PROTECTION				
1. Wears lab coat and personal monitors				
2. Wears gloves when handling radioactivity				
3. Uses time, distance and shielding effectively				
RECEIPT/HANDLING				
1. Correctly packages radiopharmaceutical for shipment				
2. Checks incoming/outgoing boxes for contamination				
3. Checks exposure levels on outgoing boxes				

Radiopharmacy Checklist continued…

	Performed	Not Performed	N/A	Comments
4. Attaches appropriate DOT label on outgoing shipments				
MISCELLANEOUS				
1. Performs daily constancy check on dose calibrator				
2. Other (indicate task)				
3. Other (indicate task)				
4. Other (indicate task)				

Comments:

Radiopharmacy Clinical Assignment

1. Supply the following information about the Mo-99/Tc-99m generators used in this radiopharmacy.

   Manufacturer _____

   Wet or dry column? _____

   Size (Mo-99 activity at calibration) _____

2. For "dry" column generators, what volume of saline is added to the generator? What size evacuated vials are used to collect the eluate?

3. Is the eluate concentration approximately the same from one elution to the next?

4. How often is a particular generator eluted?

5. Calculate the elution efficiency of one of the generators in use at this facility. Show all your work.

6. For how many days is a generator used?

Radiopharmacy Clinical Assignment Continued…

7. What is the expiration time of the Tc-99m eluate?

8. Identify the quality control tests performed on the eluate. State the acceptable limits for each test performed.

9. What is the DOT Transport Index on the generator shipping container when it is received?

10. For how long is a spent generator stored before it is returned to the manufacturer?

11. Describe the packaging process used to return a spent generator to the manufacturer.

12. What is the Transport Index on the spent generator shipping container when it is returned to the manufacturer? How is the Transport Index determined?

CHILDREN'S HOSPITAL

UAB Nuclear Medicine Technology Program

Children's Hospital Checklist

Student: _____ Date: _____

Clinical Instructor: _____

Procedure	Performed /Observed	Not Performed /Seen	N/A	Comments
Hepatobiliary				
3-Phase bone imaging				
Bone imaging				
*VCUG				
MUGA				
*Gastric emptying				
Infection imaging				
Renal – MAG 3				
Renal – DMSA				
V/Q				
Thyroid imaging				
Camera QC – Uniformity/linearity				
Camera QC - COR				

*Should definitely see at Children's Hospital

On the back of this checklist, write a short comparison of Adult vs Pediatric Nuclear Medicine

Clinical Instructor comments:

PET IMAGING

Competency Evaluation

PET/CT

STUDENT: _____ DATE: _____

Before this evaluation is attempted, the student must have completed independently at least **5** PET/CT studies under the supervision of a technologist. The technologist evaluating the student should circle the performance level for each item.

PATIENT CARE:			
1. ***** Verify patient identification and written orders for study	Met	Not met	Not applicable
2. Communicate with patient (including procedure explanation)	Met	Not met	Not applicable
3. Obtain appropriate history	Met	Not met	Not applicable
4. Perform aseptic IV injection	Met	Not met	Not applicable
5. Provide appropriate patient care	Met	Not met	Not applicable
6. Assist in patient transfer	Met	Not met	Not applicable
7. Provide safe and dignified Environment	Met	Not met	Not applicable
8. Discharge the patient	Met	Not met	Not applicable
PET/CT INSTRUMENTATION:			
9. Calibrate camera for radionuclide	Met	Not met	Not applicable
10. Choose and install correct collimator	Met	Not met	Not applicable
11. Set acquisition parameters correctly	Met	Not met	Not applicable
12. Enter patient information	Met	Not met	Not applicable
13. Operate camera efficiently	Met	Not met	Not applicable
PERFORM PET/CT IMAGING:			
14. Remove attenuating objects	Met	Not met	Not applicable
15. Position patient correctly	Met	Not met	Not applicable
16. Compensate for positioning problems	Met	Not met	Not applicable
17. Place patient table at appropriate height and starting location	Met	Not met	Not applicable
18. Perform image efficiently	Met	Not met	Not applicable
COMPLETE THE PET/CT IMAGE:			
19. Record study	Met	Not met	Not applicable
20. Process study	Met	Not met	Not applicable
21. Label study correctly	Met	Not met	Not applicable
22. Present study to supervisor	Met	Not met	Not applicable
23. Prepare room for next patient	Met	Not met	Not applicable

Competency Evaluation PET/CT Continued…

RADIATION / BIOHAZARDS:

24. Ensure proper time, distance and shielding techniques are used for 511 kev photons	Met	Not met	Not applicable
25. Observe precautions throughout study	Met	Not met	Not applicable

PROBLEM SOLVING:

26. Recognize problems & handle each appropriately	Met	Not met	Not applicable

***Failure to perform this task constitutes an automatic failure of this competency.**

Comments:

After observing the student complete this study, I believe that he/she is competent to perform this study with minimal assistance.

Technologist: _____ Date: _____

PET/CT Imaging – Student Competency Checklist

Student:_____ Date:_____

Clinical Instructor:_____

	Performed	Not Performed	N/A	Comments
Daily Start-up				
Check daily QC numbers & evaluate sinogram				
Check dose calibrator constancy				
Draw saline & prep for patient injections				
Stock injection areas				
Patient Prep				
Evaluate patient chart for appropriateness				
Code patient chart for proper insurance				
Explain procedure to patient				
Assay dose for appropriate injection				
Camera Setup				
Input patient data				
Input appropriate scan data				
Setup patient for WB scan				
Setup patient for Brain scan				
Setup scan immobilization device				
Start scan				
Evaluate scan				
Archive patient data				
End of Day				
Survey & wipes				
Stock rooms				

Comments:

Student Signature: _____ Date: _____

PET/CT Technologist Signature: _____ Date: _____

Computed Tomography Clinical Hours Documentation

Hours can be obtained in PET/CT, SPECT/CT, and/or CT

Name (print):_____

Equipment: _____

Location: _____

Name of person confirming clinical hours: _____

(Claims of clinical hours can be confirmed with the Program Director, Technical Supervisor, or Supervising Physician. Please print the name of the person confirming the hours above along with credentials.)

Date	Total Hours	Signature of Person confirming hours

I, _____, have completed a total of _____ hours as confirmed above.

_____

Signature

SUMMARY EVALUATION

(A summary evaluation must be completed for every clinic site attended.)

UAB Nuclear Medicine Technology Program
Summary Evaluation

STUDENT: _____ DATE: _____

Directions: The following categories describe specific behaviors. To the right of each are 4 or 5 descriptors. Please read each carefully and then place an "X" in the box with the descriptor that best applies to the student.

Technical Knowledge	Lacks knowledge of fundamental principles	Limited: Needs help with techniques frequently	Superior: Can answer almost any question; performs independently	Fair: Occasionally needs help	Good: Rarely needs help
Quality of Work	Extremely accurate with rare exceptions	Usually accurate	Often needs major correction	Most work inaccurate; needs constant correction	Consistently accurate; little help needed
Initiative	Conscientious, requiring some follow-up	Neglects work or wanders; needs frequent reminders	Extremely thorough with all assignments	Stays with job; needing occasional reminders	Avoids work and often leaves with work undone
Efficiency of Work	Often impedes patient flow	Facilitates patient flow	Steady pace; patient flow is smooth	Occasionally impedes patient flow	Usually impedes patient flow
Work Attitude	Enthusiastic; Considerate and helpful; follows instruction carefully and accurately	Complains occasionally; relates well to others; usually follows instructions	Resents authority; complains about work; does not follow instructions	Complains often; not a good team member; argumentative	Accepts assignments willingly asks when instruction is needed
Judgment	Good judgment; asks when in doubt	Almost always exercises good judgment independently	Frequently makes faulty judgment	Lacks basics of common sense	Occasionally makes faulty judgment
Personal Appearance	Always unkempt and untidy; poor personal hygiene	Neat and clean; good personal hygiene	Occasionally unkempt and untidy; poor personal hygiene		Exemplary; very professional
Patient Attitude	Treats patient indifferently and is rude	Occasionally rude		Is polite and shows some empathy	Always polite and shows utmost concern and empathy
Use and Care of Equipment	Often misuses equipment and facilities	Is careful with equipment and facilities	Sometimes misuses equipment and facilities	Is careful; interested in maintaining equipment	Careless and wasteful
Communication	Low; relevant information not transmitted	Inappropriate; voice abrupt and not applicable	Average; transmits pertinent info when prompted	Above Average; transmits pertinent info without prompt	Superior; relays info appropriately and accurately
Punctuality	Consistently on time	Occasionally tardy	Frequently tardy		

Comments:

On _____ (date), a conference regarding the contents of this evaluation was held.

Student: _____ Clinical Instructor: _____

CASE STUDIES

UAB Nuclear Medicine Technology Program

Case Study Form

Name: _____ Study: _____

A. **PATIENT DATA**

Clinical indication for study:

Relevant medical history:

B. **DOSE PREPARATION**

1. Radiopharmaceutical: _____
   a. Activity administered: _____
   b. Volume administered: _____
2. Dose recorded in logbook? Yes _____ No _____
3. Dose checked in dose calibrator before administration? Yes_____ No _____

   Does it match prescribed dose within limits? Yes _____ No _____
4. What type of radiation protection was practiced during dose preparation?

C. **DOSE ADMINISTRATION**

1. Patient's ID checked before administration? Yes _____ No _____
2. Dose administered by what route? _____
3. Syringe shield used? Yes _____ No _____

Case Study Form continued…

4. Aseptic technique used? Yes _____ No _____

   Describe the technique

5. Patient observed for reaction to radiopharmaceutical? Yes _____ No _____

D. **PATIENT HANDLING**

1. How was patient transported to department?

2. How was transfer to imaging table performed?

3. List any patient preparation required for this study.

4. Who explained procedure to patient?

   What information was conveyed to the patient?

   What questions did patient ask?

5. Special instruction / precautions Yes _____ No _____

IV	_____
Oxygen	_____
Catheter	_____
Isolation technique	_____
Other (describe)	_____

E. **INSTRUMENTATION**

1. Name of instrument _____

Case Study Form continued…

2. What quality control was performed on this instrument on the day of this test?

3. Collimator _____

4. Acquisition parameters _____

F. **EXAMINATION PROCEDURE**

1. Study performed how long following radiopharmaceutical administration?

2. What routine views were acquired?

3. What special views were required?

4. What alternatives were offered if the patient was unable to cooperate?

Case Study Form continued…

G. **EXAMINATION RESULTS**

1. What information was included on the films?

2. Briefly describe the principle of this diagnostic procedure (relate it to the clinical indication for this study).

3. Briefly describe the findings of this study in your own words.

4. Describe any problems that were encountered during this study and how they were solved. List alternative solutions and identify which would be the best. Analyze your decision by discussing the advantages and disadvantages of each alternative. (Use back of this sheet if necessary.)

SELF-ASSESSMENT

(One self-assessment should be completed at the end of the semester.)

UAB Nuclear Medicine Technology Program

Self-Assessment

Student: _____ Date: _____

Clinical Site: _____ Reviewed: _____

The ability to assess your own performance is an important skill. This is one skill that professionals can use to direct their own professional development over their entire career. The following questions are designed to help you reflect on the clinical experience you have just finished. After you have completed this form, it should be reviewed with the clinical coordinator. This activity is 5% of your final clinical grade.
Note: Only one self- assessment is needed per term, no matter how many clinical rotations a student completes during a term.

In completing this form, consider technical, communication, and administrative/management skills.

1. During this clinical term, what new skills have you acquired that you can now perform independently?

2. What new skills can you perform with assistance? What aspects of these skills are least familiar or comfortable for you to perform independently? Are there any competencies that you wish to re-comp to get more experience?

Self-Assessment continued…

3. What might help you achieve competency (independent performance) in the areas identified in #2?

4. What skills do you still lack overall? (That is, you felt uncomfortable not being able to perform this task during the clinical term, or it may have hindered your other work in some way.)

CT CLINIC DOCUMENTS

The University of Alabama at Birmingham
School of Health Professions

Computed Tomography Clinical Education Behavior Evaluation Form

Student Name:_____Date: _____

Name of Clinical Education Center: _____

Using the following scale, circle the number which best describes the performance of the student in each of the areas identified:

3 Outstanding
consistently performs in a superior manner, needs no improvement
2 Above Average
performs well, requires minimal improvement
1 Average
basically acceptable with necessary improvement
0 Inadequate
needs major improvement

1.	**Application of Technical Knowledge**: understands and applies knowledge of procedure	3	2	1	0	NA
2.	**Attitude towards patients:** always polite and empathetic; demonstrates good disposition	3	2	1	0	NA
3.	**Attitude towards work:** enthusiastic; considerate; helpful; follows instructions	3	2	1	0	NA
4.	**Communication Skill:** transmits pertinent information to patients and staff in a professional and cheerful manner	3	2	1	0	NA
5.	**Confidence:** is sure of ability to adequately perform procedures and interact with patients	3	2	1	0	NA
6.	**Compassion:** assists patients willingly with indifference towards ethnicity, socioeconomic status, disease process, etc.	3	2	1	0	NA
7.	**Efficiency of Work:** completes tasks in a timely manner; does not impede patient flow	3	2	1	0	NA
8.	**Initiative and Motivation:** performs voluntarily; thorough with all assignments; exhibits desire to learn	3	2	1	0	NA
9.	**Judgment:** exhibits good judgment, asks when in doubt	3	2	1	0	NA
10.	**Personal Appearance:** exemplary, very professional with good personal hygiene	3	2	1	0	NA

11.	**Quality of Work:** accurate, most work completed at expected level or higher	3	2	1	0	NA
12.	**Reaction to Criticism:** readily accepts constructive criticism and adapts behavior to reflect improvement	3	2	1	0	NA
13.	**Tact and Diplomacy:** exercises discretion in dealing with sensitive issues regarding patients; is courteous to patients, staff and visitors	3	2	1	0	NA
14.	**Technical Knowledge:** performs procedures accurately and efficiently; knows when adjustments are necessary and responds accordingly	3	2	1	0	NA

COMMENTS: Please list relevant comments including the areas(s) in which the student is above average and those which require improvement

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

TOTAL POINTS RECEIVED BY STUDENT: _____
TOTAL SCORE ON 100% SCALE: _____
LETTER GRADE PER SCORE: _____

Student Signature:_____ Date:_____
Technologist's Signature:_____ Date:_____
Signature of Clinical Preceptor:_____ Date:_____
Signature of Clinical Coordinator (faculty):_____ Date: _____

Attendance Sheet

Date	Time		Comments and Initials of Supervisor
	In	Out	

Please fill this form out completely

Department of Clinical and Diagnostic Sciences

Nuclear medicine Technology

Computed Tomography Option Clinical Schedule Form

Clinical Education Center _____

Advanced Imaging Modalities Computed Tomography:

Contact Person _____

Week Of	Monday	Tuesday	Wednesday	Thursday	Friday

Schedule must be arranged and agreed upon by student and area clinical supervisors. All changes must be pre-approved with clinical supervisor.

_____ _____

Student Signature Date

_____ _____

Computed Topographer Clinical Supervisor Signature Date

The University of Alabama at Birmingham
School of Health Professions

Computed Tomography (CT) Clinical Competency Evaluation Form

Student Name: _____ Date: _____
Type of Procedure: _____ Evaluator's Signature: _____

Using the following scale, circle the number which best describes the performance of the student in each of the areas identified:

3	Above Average Knowledge and Performance
2	Average Knowledge and Performance
1	Below Average Knowledge and Performance
0	Unacceptable Level of Knowledge and Performance
N/A	Not Applicable

Section I: Patient Care

1.	Prepares examination room for patient	3	2	1	0	NA
2.	Properly identifies the patient	3	2	1	0	NA
3.	Introduces themselves to the patient	3	2	1	0	NA
4.	Educates patient on general aspects of CT and procedure specifics; including obtaining pertinent information concerning allergies, if contrast media is to be administered.	3	2	1	0	NA
5.	Screens patient's medical record for information necessary for the performance of the procedure, e.g., consent form, lab values, etc., documents and reports findings	3	2	1	0	NA
6.	Obtains and records patient history procedure information	3	2	1	0	NA
7.	Transports patient to the examination room	3	2	1	0	NA
8.	Transfers patient to CT couch	3	2	1	0	NA
9.	Answers patient questions and addresses concerns	3	2	1	0	NA

3 Above Average Knowledge and Performance
2 Average Knowledge and Performance
1 Below Average Knowledge and Performance
0 Unacceptable Level of Knowledge and Performance
N/A Not Applicable

Section II: Procedure Performance

1.	Evaluates procedure request form	3	2	1	0	NA
2.	Properly prepares examination room	3	2	1	0	NA
3.	Prepares contrast media, if necessary; including identification of type, dosage, administration route, loads syringes, mixes oral, etc.	3	2	1	0	NA
4.	Loads power injector, if required	3	2	1	0	NA
5.	Properly administers contrast media, if allowed	3	2	1	0	NA
6.	Identifies contrast media reactions and responds accordingly	3	2	1	0	NA
7.	Transfers patient to CT couch	3	2	1	0	NA
8.	Properly centers patient for procedure	3	2	1	0	NA
9.	Enters the proper patient identification information into the CT computer	3	2	1	0	NA
10.	Identifies and uses proper protocol for procedure	3	2	1	0	NA
11.	Selects and uses proper equipment controls to obtain the best technical image, e.g., window width, window level, fields-of-view, matrix size, algorithm, etc.	3	2	1	0	NA
12.	Performs procedure properly (proper patient instructions, etc.)	3	2	1	0	NA
13.	Identifies pathology in relation to normal anatomy	3	2	1	0	NA
14.	Demonstrates knowledge of necessary adjustments to be made if pathology is discovered	3	2	1	0	NA
15.	When required, demonstrates knowledge of aseptic/sterile technique	3	2	1	0	NA
16.	Correctly applies radiation protection devices to the patient and other who must remain in the radiographic room	3	2	1	0	NA
17.	Follows correct filing format for procedure	3	2	1	0	NA
18.	Properly archives images and records pertinent information on the medical record	3	2	1	0	NA
19.	Dismisses the patient with proper post procedure instructions	3	2	1	0	NA

SCORE: _____

CT Daily Log of Experiences

Name of Student		Institution/Division	Clinical Preceptor
Date	Case #	Procedure	Comments
1.			
2.			
3.			
4.			
5.			
6.			
7.			

PLEASE FILL THIS FORM OUT COMPLETELY

Duplicate as Needed

MR CLINIC DOCUMENTS

NMT 695 MRI CLINICAL PRACTICE

ENTRY LEVEL AND LEVEL 1 PERFORMANCE OBJECTIVES

Name: _____
Date: _____
Evaluator: _____

By the end of the rotation, the student will be able to:

__ 1. Explain how to call for a fire and the special considerations in the MRI department.
__ 2. Explain how to call for a code and the special considerations in the MRI department.
__ 3. Locate randomly selected supplies from the inventory
__ 4. Demonstrate knowledge of the location and proper use of the patient help device.
__ 5. Prepare the oxygen system for use.
__ 6. Prepare the suction system for use.
__ 7. Name common examinations and describe the procedure briefly.
__ 8. State how to determine what examinations need to be done (schedules or requisitions).
__ 9. Demonstrate how to operate the imager.
    __ a. Loading unexposed film and removing exposed film
    __ b. Format changes
__ 10. Demonstrate how to adjust window for imaging.
    __ a. Width
    __ b. Level
__ 11. Demonstrate how to view images.
__ 12. Demonstrate imaging for specific exams
__ 13. Demonstrate how to enter patient data.
__ 14. Demonstrate how to annotate data.
__ 15. State knowledge of fringe field and magnetic field safety requirements.
__ 16. Perform the following with assistance:
    __ a. Prepare a room and equipment for the examination.
    __ b. Explain to the patient the nature of the examination and obtain a history.
    __ c. Record any pertinent data from the patient relative to the requested examination.
    __ d. Verify appropriate screening of patient to assure safety and eliminate metals from entering the exam room
    __ e. Bring patient into the exam room and ensure patient comfort.
    __ f. Assist the technologist in obtaining and processing images.
__ 17. Identify on MRI images the following structures:
    __ a. Patient identification
    __ b. Image numbering and sequencing
    __ c. Pertinent technical information (i.e. T1 vs. T2 vs. PD weighting)
__ 18. Demonstrate how to organize paperwork:
    __ a. Schedules
    __ b. Requisition and billing completed

Entry Level and Level1 Performance Objectives continued…

__ c. Films/film check-out

__ 19. Observe venipuncture and administration of contrast media.

__ 20. Demonstrate correct venipuncture technique and contrast administration.

__ a. Complete venipuncture competency examination.

NMT 695 MRI CLINICAL PRACTICE

LEVEL 2 PERFORMANCE OBJECTIVES

Name: _____
Date: _____
Evaluator: _____

By the end of the rotation, the student will be able to:

__ 1. Be responsible for the continued demonstration of all previous objectives.
__ 2. Demonstrate use of control of table position, etc., on MR Scanner.
__ 3. Demonstrate daily quality assurance and evaluation of quality assurance tests.
__ 4. Select appropriate coil for exam.
__ 5. Demonstrate how to change coils on the MR unit scanner.
__ 6. Demonstrate how to select the appropriate protocol.
__ 7. Determine imaging region.
__ 8. Describe operation of viewing console.
__ 9. Explain tuning (as required).
__ 10. Explain how various emergency situations would be conducted in the exam room.
    __ a. Quench
    __ b. Cryogen leak
    __ c. Metallic object against magnet
    __ d. Medical emergency
__ 11. Demonstrate how to adjust imaging parameters to obtain an optimum image to include:
    __ a. Field of view
    __ b. Number of slices
    __ c. Slice thickness
    __ d. Number of excitations (acquisitions)
    __ e. Repetition time
    __ f. Echo time
    __ g. Phase encoding direction
    __ h. Frequency encoding direction
    __ I. Matrix size
    __ j. Slice gap between slices
__ 12. Explain the following terms:
    __ a. Center, Carrier or System frequency
    __ b. RF plus amplitude
    __ c. RF Pulse Length
    __ d. Receive attenuation

NMT 695 MRI CLINICAL PRACTICE

LEVEL 3 PERFORMANCE OBJECTIVES

Name: _____
Date: _____
Evaluator: _____

By the end of the rotation, the student will be able to:

__ 1. Be responsible for the continued demonstration of all previous objectives.
__ 2. Explain when the following imaging parameters should be adjusted to obtain an optimum image.
- __ a. Field of view
- __ b. Number of slices
- __ c. Slice thickness
- __ d. Number of excitations (acquisitions)
- __ e. Repetition time
- __ f. Echo time
- __ g. Phase encoding direction
- __ h. Frequency encoding direction
- __ I. Matrix size
- __ j. Slice gap between slices

__ 3. Demonstrate how to do manual and auto tuning (as required).
__ 4. For the following exams, state the phase and frequency direction and an explanation of why those directions are chosen:
- __ a. Axial spine
- __ b. Sagittal head
- __ c. Coronal sella
- __ d. Coronal spine

__ 5. Demonstrate ability to select appropriate imaging parameters to reduce:
- __ a. Flow artifact
- __ b. Motion artifacts
- __ c. Aliasing (wrap-around) artifacts

__ 6. Explain the common protocols of the MR scanner.
__ 7. Explain the difference between gradient-echo and spin-echo techniques.
__ 8. Describe imaging utilizing the following options:
- __ a. Fat suppression
- __ b. Field-echo/gradient echo
- __ c. Flow comp/gradient moment nulling/gradient motion rephrasing
- __ d. Presaturation

__ 9. Demonstrate ability to correctly perform MR examinations of the central nervous system:
- __ a. Brain
- __ b. C-spine/T-spine/L-spine

Level 3 Performance Objectives continued…

__ 10. Demonstrate ability to correctly perform MR examinations of the:

- __ a. IAC/trigeminal nerve
- __ b. Sella Turcica

NMT 695 MRI CLINICAL PRACTICE

LEVEL 4 PERFORMANCE OBJECTIVES

Name: _____
Date: _____
Evaluator: _____

By the end of the rotation, the student will be able to:

__ 1. Be responsible for the continued demonstration of all previous objectives.
__ 2. Perform adjustments of protocols (on procedures whereby the competency exam has been passed) to obtain an optimum image under indirect supervision.
    __ a. Field of view
    __ b. Number of slices
    __ c. Slice thickness
    __ d. Number of excitations (acquisitions)
    __ e. Repetition time
    __ f. Echo time
    __ g. Phase encoding direction
    __ h. Frequency encoding direction
    __ I. Matrix size
    __ j. Slice gap between slices
    __ k. Resolution (pixel size), if applicable
__ 3. Demonstrate continued ability to correctly perform MR examinations of the central nervous system under indirect supervision:
    __ a. Brain
    __ b. C-spine/T-spine/L-spine
__ 4. Under direct supervision demonstrate ability to correctly perform MR examinations of the:
    __ a. Musculoskeletal region
    __ b. Abdomen/Pelvis
    __ c. Thorax/Mediastinum

Attendance Sheet

Date	Time		Comments and Initials of Supervisor
	In	Out	

Please fill this form out completely

Department of Clinical and Diagnostic Sciences
Nuclear Medicine Technology

Magnetic Resonance Imaging Option Clinical Schedule Form

Clinical Education Center _____
Advanced Imaging Modalities Magnetic Resonance Imaging:
Contact Person _____

Week Of	Monday	Tuesday	Wednesday	Thursday	Friday

Schedule mist be arranged and agreed upon by student and area clinical supervisors. All changes must be pre-approved with clinical supervisor.

_____ _____
Student Signature Date

_____ _____
Magnetic Resonance Clinical Supervisor Signature Date

The University of Alabama at Birmingham
School of Health Professions

Magnetic Resonance (MRI) Clinical Competency Evaluation Form

Student Name: _____ Date: _____
Type of Procedure: _____ Evaluator's Signature: _____

Using the following scale, circle the number which best describes the performance of the student in each of the areas identified:

3	Above Average Knowledge and Performance
2	Average Knowledge and Performance
1	Below Average Knowledge and Performance
0	Unacceptable Level of Knowledge and Performance
N/A	Not Applicable

Section I: Patient Care

1.	Prepares examination room for patient	3	2	1	0	NA
2.	Properly identifies the patient	3	2	1	0	NA
3.	Introduces themselves to the patient	3	2	1	0	NA
4.	Educated patient on general aspects of MRI and procedure specifics; including obtaining pertinent information concerning allergies, if contrast media is to be administered.	3	2	1	0	NA
5.	Screens patient's medical record for information necessary for the performance of the procedure, e.g., consent form, lab values, etc., documents and reports findings	3	2	1	0	NA
6.	Obtains and records patient history procedure information	3	2	1	0	NA
7.	Transports patient to the examination room	3	2	1	0	NA
8.	Transfers patient to MRI couch	3	2	1	0	NA
9.	Answers patient questions and addresses concerns	3	2	1	0	NA

3 Above Average Knowledge and Performance
2 Average Knowledge and Performance
1 Below Average Knowledge and Performance
0 Unacceptable Level of Knowledge and Performance
N/A Not Applicable

Section II: Procedure Performance

1.	Evaluates procedure request form	3	2	1	0	NA
2.	Properly prepares examination room	3	2	1	0	NA
3.	Prepares contrast media, if necessary; including identification of type, dosage, administration route, loads syringes, mixes oral, etc.	3	2	1	0	NA
4.	Loads power injector, if required	3	2	1	0	NA
5.	Properly administers contrast media, if allowed	3	2	1	0	NA
6.	Identifies contrast media reactions and responds accordingly	3	2	1	0	NA
7.	Transfers patient to MRI couch	3	2	1	0	NA
8.	Properly centers patient for procedure	3	2	1	0	NA
9.	Enters the proper patient identification information into the MRI computer	3	2	1	0	NA
10.	Identifies and uses proper protocol for procedure	3	2	1	0	NA
11.	Selects and uses proper equipment controls to obtain the best technical image, e.g., window width, window level, fields-of-view, matrix size, algorithm, etc.	3	2	1	0	NA
12.	Performs procedure properly (proper patient instructions, etc.)	3	2	1	0	NA
13.	Identifies pathology in relation to normal anatomy	3	2	1	0	NA
14.	Demonstrates knowledge of necessary adjustments to be made if pathology is discovered	3	2	1	0	NA
15.	When required, demonstrates knowledge of aseptic/sterile technique	3	2	1	0	NA
16.	Follows correct filing format for procedure	3	2	1	0	NA
17.	Properly archives images and records pertinent information on the medical record	3	2	1	0	NA
18.	Dismisses the patient with proper post procedure instructions	3	2	1	0	NA

SCORE: _____

MRI Daily Log of Experiences

Name of Student		Institution/Division	Clinical Preceptor
Date	Case #	Procedure	Comments
1.			

PLEASE FILL THIS FORM OUT COMPLETELY

Duplicate as Needed

APPENDICES

The University of Alabama at Birmingham
School of Health Professions
NUCLEAR MEDICINE TECHNOLOGY PROGRAM

Appendix A: Student Work Policy

(November 2002)

All students are covered by professional liability insurance when they are enrolled and participate in the clinical education courses of the NMT Program. Students who become employees in a clinical area and whose work takes place outside of the NMT curriculum are not covered by student liability insurance.

For work that requires monitoring of radiation exposure, unless the student is a UAB employee, students must wear dosimeters provided by their employers. Students must wear personnel dosimeters provided by UAB only when they are functioning as a UAB NMT student in an assigned clinical facility or when they are working as a UAB employee in an area where occupational radiation exposure is monitored.

The University of Alabama at Birmingham
School of Health Professions
NUCLEAR MEDICINE TECHNOLOGY PROGRAM

Appendix B:
UAB Highlands
Appearance, Uniform and Hygiene

Purpose:
Our personal appearance creates an impression on patients and visitors. The impression you create reflects the standards of UAB Highlands and the pride you have on your job. It is essential that we project professionalism, cleanliness, friendliness and safety awareness. Our efforts of creating a pristine experience for you patients and visitors begin with maintaining a positive personal appearance.

POLICY:

I. **Appearance – Uniformed Personnel** (includes all clinical employees and all others who wear a specific form of apparel in connection with their job.)

A. Uniforms must be neat and clean at all times.

B. Employees must wear their name badge at all times to identify themselves to patients, visitors and fellow employees.

C. The wearing of jewelry and/or accessories should complement the uniform in a conservative way and may not clash with the overall appearance of the uniform. In some departments, jewelry and accessories may not be worn due to the nature of the work performed.

1. Employees may not wear large, and/or brightly colored accessories.
2. Examples of what may be worn include: One set of small earrings (for reference purposes, earrings must fit within the dimensions of your picture on the back of your name badge); one or two small hair accessories (for reference purposes hair accessories may not be longer than the length of your name badge).

D. The number of accessory items worn must be minimal so the accessories do not detract from employees' neat and professional appearance.

1. An employee may wear no more than:
   a. One set of earrings (as described in C.2 above)
   b. A total of two rings on both hands (engagement ring and wedding band may be counted as one)
   c. One wristwatch

d. One necklace
e. Two hair accessories (as described in C.2 above)

2. Employees may not wear body piercing accessories that can be seen, with the exception of earrings noted above.

E. Shoes must protect employees' feet appropriately and must meet requirements within employees' work units.
   1. No canvas shoes, clogs, sandals, open-heeled or open-toed shoes.

F. Shirts or blouses worn as part of a uniform must be solid in color with no prints or designs (or as stipulated in your department's approved policy).

G. Employees may not wear shorts, "skorts", or culottes.

H. Uniforms must fit appropriately with not tight uniforms worn and fabric must be thick enough so the under clothes do not show through.

I. Employee may not wear blue jeans, "leggings", stirrup-pants or sweat pants.

II. **Appearance – Non-Uniformed Personnel**

A. Employees should dress in a professional manner wearing accepted business attire and accessories.
   1. Employee may not wear blue jeans, "leggings", stirrup-pants or sweat pants.
   2. Employees may not wear shorts, "skorts", or culottes.

B. Employees must wear their name badge at all times to identify themselves to patients, visitors, and fellow employees.

C. Shoes must protect employees' feet appropriately and must meet requirements within employees' work units.
   1. No canvas shoes, clogs, sandals, open-heeled or open-toed shoes.

III. **Personal Grooming and Hygiene**

A. Employees must appear well-groomed and clean with neat and clean hair, fingernails, teeth, and make-up (if employee chooses to wear make-up).

B. Hair styles must be neat and professional and may not be extreme in nature.

C. Fingernails must be moderate in length. No nail polish with glitter or artificial nail may be worn.

D. If make-up is worn, it must not be too bright or too thick.

E. Perfume or cologne, if worn, may only be light in fragrance. It may only be worn if it does not disturb patients, visitors or your fellow employees.

IV. **Pins, Insignia and Buttons**

A. Pins, insignia and buttons that are inappropriate in a hospital setting or therwise detract from professional appearance are prohibited.

V. **Responsibility Compliance**

A. It is each employee's responsibility to comply with this policy and other practices that may exist in a particular work area.

B. It is each supervisor's responsibility to ensure employees within their unit comply with this policy and others that may exist in a particular work area.
   1. At management's discretion, an employee not in compliance with this policy will not be permitted to work until the matter is corrected.
   2. An incident of absence will be recorded if an employee is sent home due to non-compliance before the end of his/her shift

C. Each department manager and division director has the responsibility of maintaining dress code policies within his/her department/division that are consistent with accepted health care practices of uniforms, appearance and safety.
   1. All department-specific practices/policies/guidelines must be on file with Human Resources.
   2. Management personnel must ensure all affected employees are knowledgeable about the department-specific practices through new employee orientation, in-services, etc.

D. Employees who are chronically non-compliant with this policy are subject to progressive discipline, up to and including termination of employment.
   1. Management personnel must counsel employees who are non-compliant and administer disciplinary action.

E. Employees may use UAB Highland's Conflict Resolution procedure for questions concerning interpretation and compliance.

The University of Alabama at Birmingham
School of Health Professions
NUCLEAR MEDICINE TECHNOLOGY PROGRAM

Appendix C:
University of Alabama Hospital Dress Code Standard

UNIVERSITY OF ALABAMA HOSPITAL
DRESS CODE STANDARD

Title of Management Policy:	Dress Code Standard				
JCAHO Reference:					
Initiated:	Dress Code Project Team		Initiated:		
	Author	Date		Author	Date
Endorsed:	Patient Relations Steering Committee		Endorsed:		
	Committee/Manager	Date		Committee/Manager	Date
Approved: (originally)		Date	Approved: (originally)		Date
Approved: (Present Edition)	Kevin E. Taylor 9/25/96		Approved: (Present Edition)	9/25/96	
	Hospital Executive Director	Date		Chief, Medical Staff	Date

1. PURPOSE:

To set forth dress standards that will present a professional image of UAB University Hospital.

2. PHILOSOPHY:

It is our belief that the dress/appearance of staff promotes a positive, professional image that projects a caring atmosphere to our patients/customers. It is the responsibility of each Department director/manager to use discretion in the interpretation of this policy to ensure that these standards are met.

3. POLICY:

3.1 All employees are expected to maintain the standards of neatness, cleanliness, grooming and dress. The following guidelines represent minimum standards. Department directors/managers may adopt additional dress standards more stringent (but not less stringent) than the requirements indicated below.

3.2 Hospital identification badges will be worn at collar/shoulder level while on the Hospital premises for work related purposes. The name and picture will be visible. Clinical areas may alter the location of the identification badge when engaging in an activity that may affect patient safety.

3.3 Street clothes/uniforms will be clean, wrinkle free and loose fitting to allow for freedom of movement. No halter tops, sweat pants/shirts, or leggings (that are not part of the department uniform) will be worn. Shirt tails must be tucked into pants.

3.4 Clothing with slogans, advertisements, or logos will not be worn (except that employees may wear clothing with slogans, advertisements, or logos promoting Hospital-sponsored events and initiatives that are authorized by Hospital management (department directors/managers)).

3.5 Dresses/skirts cannot exceed two inches above the knee in length.

3.6 Dress shorts can be worn with a jacket/blazer and cannot exceed two inches above the knee in length.

3.7 Hosiery will be worn with dresses, skirts and dress shorts. Patterned, appliquéd or seamed hosiery are not acceptable.

3.8 Shoes should be comfortable, appropriate for the work environment and consistent with professional attire.

3.9 Sunshades (or other tinted, non-prescription glasses) shall not be worn inside hospital facilities.

3.10 Caps or hats are not acceptable unless a part of the uniform.

3.11 Under garments will be worn and will not be visible.

3.12 Each employee is responsible for his/her daily personal hygiene.

3.13 Jewelry will be conservative/no facial jewelry permitted (except on earlobes).

No more than:

3.13.1 Anklets – 1

3.13.2 Rings may be on 2 fingers per hand (not to extend above the knuckle).

3.13.3 Earrings – No more than 2 pairs may be worn. Earrings will be no larger than two inches in diameter or length.

3.13.4 Necklace – 2 necklaces

3.13.5 Bracelet – 1 to each arm

3.13.6 Watch – 1 watch

3.14 Nails will be neat and clean; no longer than one-half inch from the end of finger.

3.15 Hair will be neat and clean.

3.16 A minimum amount of perfume, cologne or other scented products may be worn outside patient care areas.

3.17 Uniforms and other applicable items supplied by the Hospital Department (i.e., keys identification badge, etc.) must be returned to the department when an individual ends employment with the Hospital or transfers to another area within the Hospital.

3.18 Dress standards will be adhered to anytime an employee is on the hospital premises and wearing an identification badge. Requests for exceptions to any of the dress standards based on cultural, religious or medical reasons must be submitted in writing by the employee to the Director, Hospital Human Resources Management for consideration. The employee will receive a written response.

4. DISCIPLINARY ACTION – Rolling 12-Month Basis:

Employees who are in violation of this standard may be sent home without pay to change clothes and return immediately to work. The Department director/manager may use their discretion as to whether or not the employee may make up time missed.

The disciplinary process will be activated consistently with University policy:

4.1 Verbal Warning with Education of Hospital and Departmental Policy (if applicable)

4.2 Written Warning with Education of Hospital and Department Policy

4.3 Suspension and Imposed Probation

4.4 Termination

5. EDUCATION:

5.1 New employees will be presented a copy of the Hospital Dress Code Standard and the Department Dress Code Standard (if applicable) during orientation.

5.2 Each Department Dress Code Standard will address specific requirements for the area (i.e., uniforms) and take into consideration the safety needs of employees and patients, or other customers (i.e., no sandals or open toed shoes, appropriate cover worn over scrub suits when outside sterile environment, etc.). It will also state locations and under what conditions the garments will be worn (i.e., no surgical shoe covers outside surgical area, etc.).

5.3 Department Dress Code Standards will be approved by the respective Associate Executive Director and a copy will be sent to the Human Resource Management, Department of Relations, Administration Building, extension 4-4458.

5.4 Hospital Dress Code Standard evaluation will occur at least annually.

6. SCOPE:

Dress Code Standards applies to all areas of the Hospital.

Appendix C Continued…

7. PERFORMANCE IMPROVEMENT TRACKING RECORD

Action			Reasons for Development of Standard						Change in Practice	
New Policy	Policy Revision	Policy Review	Required Review	Document Current Practice	Legal/Regulatory Requirement	Quality Risk Safety	New Knowledge	Cost Efficiency	Yes	No
REVISIONS:			This policy is to be reviewed frequently, no less than once every three (3) years, and revised as needed.							
DATE DISTRIBUTED:										
FILE NAME:			It should have the same name as the old dress code standard							

The University of Alabama at Birmingham
School of Health Professions
NUCLEAR MEDICINE TECHNOLOGY PROGRAM

Appendix D:
Cardiovascular Associates
Dress Code

CARDIOVASCULAR ASSOCIATES, PC
DRESS CODE POLICY

All designated clinical and non-clinical staff will be required to follow the dress and uniform policy as outlined below.

1. All CVA staff are expected to wear a uniform approved by CVA unless otherwise noted in policy. (See Uniform Order Form for more details).

2. A white turtleneck or round neck style white shirt may be worn under the uniform top. (Women should not wear men's t-shirts).

3. All uniform tops must be closed (snapped or buttoned) when worn over a white shirt.

4. The uniform top and pant must be the same color and will be worn with either the Heartbeat print jacket or a coordinating solid color jacket.

5. Clinical employees must wear professional, closed-toed shoes at all times. Shoes must be predominantly white, tan, gray, brown or black.

6. Uniform pants must be at least ankle length.

7. Skirts must be of a professional length. Managers have the authority to use their discretion.

8. No jeans/jean type pants (this includes overalls) of any color. No pants fitted to legs may be worn. Pants must be loose fitted.

9. No T-shirts/sweat shirts with logo or advertisement may be worn as an outer garment.

10. For non-clinical employees, no shorts or pants shorter than mid-calf may be worn.

11. No crop shirts or shirts that would reveal any skin between your shirt and pants.

12. No rings or studs in the tongue, eyebrows, nose, etc. (Maximum of 2 earrings per ear)

13. No visible tattoos.

14. Only natural hair colors are acceptable - No blue, pink, purple, etc.

15. Please be considerate of co-workers, patients and guests; good personal hygiene is a must. Perfume, scented lotion and cologne are **not permitted** due to sensitivity (allergies, illness) of employees and patients.

The University of Alabama at Birmingham
School of Health Professions
NUCLEAR MEDICINE TECHNOLOGY PROGRAM

Appendix E:
Student Evaluation of Clinical Experience

Hospital: _____ Academic Year: _____

In an effort to improve the effectiveness of clinical teaching, please respond to the following statements concerning your clinical experience. Use the following rating scale:

Strongly agree	4
Agree	3
Disagree	2
Strongly disagree	1
Unable to comment	0

1. My knowledge and skill (from classroom and/or previous clinical experience) were assessed at the beginning of this clinical experience. 4 3 2 1 0

2. I clearly understood to whom I was directly responsible to at all times. 4 3 2 1 0

3. Throughout the rotation, the clinical instructors attempted to determine how much knowledge and skill I possessed before assigning a particular task. 4 3 2 1 0

4. After the clinical instructors became familiar with my level of proficiency, I was given the opportunity to "try my wings". 4 3 2 1 0

5. Based on my experience and skill, I would describe the overall degree of supervision I received as:

   Too close ___ Commensurate with need ___ Not close enough ___

   If not commensurate with need, please comment:

6. I clearly understood what my assignments were and what was expected of me. 4 3 2 1 0

7. I understood the criteria for acceptable technical performance. 4 3 2 1 0

8. I understood what was considered acceptable student behavior. 4 3 2 1 0

9. The clinical instructors established daily learning objective for me. 4 3 2 1 0

Appendix E Continued…

Use the following rating scale:

Strongly agree	4
Agree	3
Disagree	2
Strongly disagree	1
Unable to comment	0

10. My rotation provided experiences that reinforced the knowledge and skill I had when I entered the rotation. 4 3 2 1 0

11. The rotation provided new experiences from which I could learn and grow professionally. 4 3 2 1 0

12. The clinical rotation was a well-rounded experience in which I was able to participate in all aspects of the technologist's role. 4 3 2 1 0

13. There were areas that were over or underemphasized. 4 3 2 1 0

    Identify those areas.

    How was this advantageous or disadvantageous to you?

14. I received constructive evaluations and comments about my progress. 4 3 2 1 0

15. I received these often enough to help me correct my weaknesses. 4 3 2 1 0

16. I received feedback about my clinical performance:

    Daily or whenever appropriate___ Midway ___ Final ___

17. I feel the following could improve this clinical rotation:

    Other comments:

The University of Alabama at Birmingham
School of Health Professions
NUCLEAR MEDICINE TECHNOLOGY PROGRAM

Appendix F:
Policy Regarding Student Participation in I-131 Therapy

Any student participating in or observing an Iodine-131 therapy must notify the Clinical Coordinator within 24-hours of participation and must have a thyroid uptake performed 24 – 48 hours following participation/observation.

The uptake must be performed at the clinical site or at the UAB Radiation Safety Office. A copy of the results should be submitted to the Program Director.

The University of Alabama at Birmingham
School of Health Professions
NUCLEAR MEDICINE TECHNOLOGY PROGRAM

APPENDIX G:
IDENTITY THEFT PREVENTION POLICY

(Red Flags)

April 1, 2011

I. Introduction

The University of Alabama at Birmingham (UAB), also referred to herein as "University," has developed this Identity Theft Prevention Policy to facilitate the University's Identity Theft Prevention Program ("Program") pursuant to the Federal Trade Commission's ("FTC") Red Flags Regulation (16 CFR § 681.2), which implements Section 114 of the Fair and Accurate Credit Transactions (FACT) Act of 2003 and the final rules implementing section 315 of the FACT Act. The regulations require each financial institution or creditor to develop and implement a written Identity Theft Prevention Program (Program) to detect, prevent, and mitigate identity theft in connection with the opening of certain accounts and the maintenance of certain existing accounts. For the purpose of these regulations, UAB is considered a creditor and has developed this policy with consideration of the size and complexity of the University's operations, its account systems and the nature and scope of the University's activities.

II. Scope and Applicability of Policy

Managing and protecting data are responsibilities shared by all members of the University community. This policy complements existing "Red Flags" policies of the UAB Health System (UABHS), and other existing University policies related to data security, data protection, and information disclosure. Such policies include, but are not limited to, the UAB Data Protection and Security Policy and the UAB Information Disclosure and Confidentiality Policy. These and other related policies combine to promote UAB's effort to comply with the Health Insurance and Portability and Accountability Act (HIPAA), the Family Educational Rights and Privacy Act (FERPA), Graham Leach Bliley Act (GLBA), Payment Card Industry (PCI) standards, and the Federal Information Security Management Act (FISMA).

This policy applies to Primary Covered Accounts in Appendix (A) and does not apply to accounts covered under the UABHS "Red Flags" policy.

1. Excepting those individuals covered by the existing UABHS "Red Flags" policy, all other individuals, (faculty, staff, students, and visitors), schools, departments, affiliates and/or other similar entities within the University community, including employees of contracted or outsourced non-UAB entities who have access to covered account Personal Identifying Information (PII) are subject to this policy.

2. All customer PII not covered by the UABHS "Red Flags" policy is covered under this policy including, but not limited to, PII data contained in centralized institutional systems, department/unit systems, systems created or operated by third party vendors under the direction of UAB, and PII data stored or maintained in any other capacity or medium where there is a reasonable foreseeable risk of identity theft.

III. Definitions and Program

A. Definitions Used in this Program

1. **Identity Theft** is a fraud committed or attempted using the identifying information of another person without authority.
2. **Red Flag** is a pattern, practice, or specific activity that indicates the possible existence of identity theft.
3. An **Account** is a continuing relationship established by a person with a financial institution or creditor to obtain a product or service for personal, family, household or business purposes. Account includes: (i) An extension of credit, such as the purchase of property or services involving a deferred payment; and (ii) A deposit account.
4. A **Covered Account** is (i) any account the University offers or maintains primarily for personal family or household purposes, that allows multiple payments or transactions, including one or more deferred payments; and (ii) any other account the University identifies as having a reasonable foreseeable risk to customers or the safety and soundness of the University from identity theft. A list of covered accounts under this policy can be found in Appendix A.
5. **Program Administrator** is the individual designated with primary responsibility for oversight of the Identity Theft Policy. See Section VII below.
6. An **Identity Theft Prevention Officer** is someone designated by a department with covered accounts to serve as a liaison to the Program Administrator and is responsible for ensuring that the requirements of the Identity Theft Prevention Policy are incorporated in departmental procedures. This person also may be responsible for ensuring the implementation of other University policies that safeguard and protect data from unauthorized access, use, and disclosure.
7. **Personal Identifying Information (PII)** is any name or number that may be used, alone or in conjunction with any other information, to identify a specific person. Below are examples of data fields that are considered PII:
    1. Taxpayer Identification Number (SSN, ITIN or EIN)
    2. System Generated Identification Number (student number or patient number, etc.)
    3. Government Passport Number
    4. Government Issued Driver's License or Identification Number
    5. Name
    6. Date of Birth
    7. Address
    8. Telephone Number(s)
    9. Personal Identification Number (PIN)

10. E-mail Address
11. Blazer ID
12. Password
13. Computer Internet Protocol Address
14. Routing Code

B. Fulfilling Requirements of the Red Flags Regulations

Under the red flags regulations, the University is required to establish an "Identity Theft Prevention Program" tailored to its size, complexity and the nature of its operation. **Each University department with covered accounts that maintains, disseminates or disposes of covered account PII data shall designate an individual who will serve as the department's Identity Theft Prevention Officer.**

The Identity Theft Prevention Program must contain reasonable policies and procedures to:

1. **Identify** relevant red flags for new and existing covered accounts and incorporate those red flags into the Program;
2. **Detect** red flags that have been incorporated into the Program;
3. **Prevent** identity theft by responding appropriately to any red flags that are detected;
4. **Mitigate** identity theft once it has occurred; and
5. **Update** the program periodically to reflect changes in risks to the customer and the University from identity theft.

IV. Identification of Red Flags

In order to identify relevant red flags, the University departments should consider the types of accounts that it offers and maintains, methods it provides to open its accounts, methods it provides to access its accounts, and its previous experiences with identity theft. The University has identified the following red flags in each of the categories listed in this section. Additional red flags may be identified by each department and included in the department's procedures to prevent, detect, and mitigate identity theft.

A. Notifications and Warnings from a Credit Reporting Agency

1. A report of fraud accompanying a credit report;
2. A notice or report from a credit agency of a credit freeze on an applicant;
3. A notice or report from a credit agency of an active duty alert for an applicant;
4. Receipt of a notice of address discrepancy in response to a credit report request; and
5. Indication from a credit report of activity that is inconsistent with an applicant's usual pattern of activity.
    1. A recent significant increase in the number of inquiries.
    2. An unusual number of recently established credit relationships.
    3. A material change in the use of credit, especially with respect to recently established credit relationships.
    4. An account that was closed for cause or identified for abuse of account privileges by a financial institution or creditor.

B. Suspicious Documents

1. An identification document or card that appears to be forged, altered or inauthentic;
2. An identification document or card on which a person's photograph or physical description is not consistent with the person presenting the document;
3. Any other document with information that is not consistent with existing PII maintained by the department or presented by the person opening an account or engaging in an account transaction; and
4. An application for service that appears to have been altered or forged, or gives the appearance of having been destroyed and reassembled.

C. Suspicious Personal Identifying Information (PII)

1. PII presented that is inconsistent with other information on record that the person has provided (example: inconsistent date of birth, SSN, address or telephone numbers, etc.);
2. Identifying information presented that is the same as information shown on other applications that were found to be fraudulent;
3. Identifying information presented that is consistent with fraudulent activity (such as an invalid phone number or fictitious billing address);
4. A Social Security Number presented that is the same as one given by another person;
5. An address or phone number presented that is the same as that of another person not reasonably expected to be a part of the same household; and
6. Failure to provide complete PII in person, on the phone, or on an application when reminded to do so.

D. Suspicious Covered Account Activity or Unusual Use of Account

1. Change of address for an account is followed by a request to change the person's name;
2. Payments stop on an otherwise consistently up-to-date account;
3. Account is used in a way that is not consistent with prior use;
4. Mail sent to the person is repeatedly returned as undeliverable;
5. Notice is received by the University that a person is not receiving mail sent by the University;
6. Notice is received by the University that an account has unauthorized activity;
7. A breach is detected in the University's computer system security; and
8. Unauthorized access to or use of a person's account information is detected.

E. Alerts from Others

1. Notice to the University received from an identity theft victim, law enforcement or other individual that the University has opened or is maintaining a fraudulent account for a person engaged in identity theft.
2. Notice to the University from any organization that an account may be fraudulent.

V. Detecting Red Flags

A. New Covered Accounts

In order to detect any of the red flags associated with the establishment of a new covered account, University personnel shall take the following steps to obtain and verify the identity of the person opening the account:

1. Require certain identifying information such as name, date of birth, academic records, home address, or other identification or combination thereof. The identifying information may vary by department contingent upon the nature of the services provided and the data maintained in departmental records.
2. Verify the person's identity at the time of issuance of an identification card (review of driver's license, passport, or other government-issued photo identification).
3. Examine documents presented for identification purposes for evidence of falsification or tampering.
4. Validate that the person has met all other University or departmental requirements associated with the opening of a new account.

B. Existing Accounts

In order to detect any of the red flags identified above for an existing account, University personnel shall take the following steps to monitor transactions on an account:

1. Verify the person's identity at the time of re-issuance of an identification card (review of driver's license, passport, or other government-issued photo identification etc.).
2. Verify the identification of a person who is requesting information in person or by telephone, facsimile, email, or other media.
3. Verify the validity of requests to change PII by mail, email, or other media and provide the person a reasonable means of promptly reporting incorrect data changes.
4. Notify the individual by e-mail, U. S. mail, telephone, any other means agreed upon by the individual, or by any combination of these methods when PII changes occur and provide the person a reasonable means to promptly report incorrect data changes.
5. Review periodically the list of data fields included in Section III of this policy under the definition of PII and update the list when new data fields are identified that may become relevant to the prevention, detection, and mitigation of identity theft.

C. Consumer ("Credit") Report Requests

In order to detect any of the red flags identified above when a credit or background report is sought, University personnel will take the following steps to assist in identifying address discrepancies:

1. At the time a request for a credit report is made to the consumer reporting agency, require written verification from the person that the address provided by the person is accurate.
2. In the event that notice of an address discrepancy is received, verify that the credit report pertains to the person for whom the requested report was made.
3. Report to the consumer reporting agency an address for the person that the University has reasonably confirmed is accurate.

VI. Preventing and Mitigating Identity Theft

In the event University personnel detect any identified red flags, such personnel shall notify their supervisor or the individual designated as the department's Identity Theft Prevention Officer. Depending on the department's assessment of the degree of risk posed by the red flag, one or more of the following steps should be taken.

A. Prevent and Mitigate

1. Delay opening an account until a reasonable belief has been formed that the person for whom a business relationship is being established has been properly identified;
2. Continue to monitor a covered account for evidence of identity theft;
3. Contact the person for whom a red flag was detected;
4. Place the account on hold to prevent unauthorized access or use;
5. Change any passwords or other security devices that permit access to covered accounts;
6. Provide the person with a new identification number or account number;
7. Notify the Program Administrator for determination of the appropriate step(s) to take;
8. Notify UAB Police Department, Criminal Investigation Division;
9. Make corrections to the account to remove unauthorized activity, but maintain documentation to support an investigation;
10. File or assist in filing a Suspicious Activities Report ("SAR"); or
11. Determine that no response is warranted under the particular circumstances.

B. Protect Covered Account Personal Identifying Information (PII)

In order to further prevent the likelihood of identity theft occurring with respect to covered account PII, the department's Identity Theft Prevention Officer shall take the following steps with respect to its internal operating procedures. These steps may require coordination with UAB Information Technology, Health System Information Services, or any other division responsible for the department's technical support.

1. Secure all websites containing the ability to access covered account PII;
2. Ensure that office computers with access to covered account PII are password protected;
3. Avoid use of Social Security Numbers when possible;
4. Ensure computer virus protection is up to date;
5. Require and keep only the kinds of information that are necessary for University purposes;
6. Properly store and secure all paper documents, files, CDs, floppy disks, zip drives, flash drives, tapes, and backups containing covered account PII in locked cabinets that are not accessible by any unauthorized individual;
7. Store file cabinets containing covered account PII in a locked room that is not accessible by any unauthorized individual;
8. Designate an employee within the department who will be responsible for controlling keys to the file cabinet and room, authorizing copies of the keys, and ensuring distribution of those keys only to employees with legitimate authorized need;

9. Ensure that sensitive papers are not left on employees' desks when they are away from their workstations and that employees work with data in such a way as not to cause an unauthorized disclosure of information;
10. Include tracking and delivery confirmation when the University is legally required to provide PII to a third-party; and
11. Ensure complete and secure destruction of paper documents, computer files, and other data storage mechanisms containing covered account PII when a decision has been made to no longer maintain such information.

VII. Program Administration

A. Oversight

The President of the University, or her or his designee, shall appoint a Program Administrator responsible for the identity theft prevention program. The Program Administrator shall work with the identity theft prevention officers designated by the departments to develop, implement, and monitor the effectiveness of this program and policy. Also, the Program Administrator shall communicate policy changes and updates to the Program.

B. Staff Training and Compliance Reports

1. The individual designated as the identity theft prevention officer for a department shall coordinate with the Program Administrator to provide staff training that is necessary to detect, prevent, and mitigate identity theft.
2. Periodically, as requested by the Program Administrator, the department's identity theft prevention officer shall submit a report to the Program Administrator on compliance with this Program. The annual report should include all known identity theft incidents that have occurred during the year. Also, the annual report should address the effectiveness of this policy and related procedures against the risk of identity theft. Any recommendations for changes to the Program should be included as well.

C. Service Provider Arrangements

In the event the University engages a service provider to perform an activity in connection with one or more covered accounts, the University, through its contract review process, shall take the following steps to ensure the service provider performs its activity in accordance with reasonable policies and procedures designed to detect, prevent, and mitigate the risk of identity theft.

1. Require in any contract that service providers have identity theft policies and procedures in place; and
2. Require in any contract that service providers report any red flags or identity theft incidents associated with University accounts/records to the University employee with primary oversight of the service provider relationship.

D. Non-disclosure of Specific Practices

For the effectiveness of the University's Identity Theft Prevention Program, knowledge about specific red flag identification, detection, mitigation, and prevention practices should be limited

to the Program Administrator, Identity Theft Prevention Officers, and departmental employees who are responsible for the implementation of this policy. Any documents that may be reviewed or produced in order to develop or implement this Program that list or describe such specific practices and the information those documents contain are considered confidential and should not be shared with other employees or the public. Also, all documents reviewed or produced as a result of identity theft, or in the investigation of potential identity theft, are considered confidential.

E. Program Updates

Changes in Federal regulations may require immediate changes to this policy. Also, the Program Administrator shall periodically review and update this policy and program to reflect changes in risks to customers and the University from identity theft. In doing so, the Program Administrator will consider the University's experiences with identity theft incidents, changes in identity theft methods related to the prevention, detection and mitigation of identity theft, and changes in the University's business arrangements with other entities. After considering these factors and others as deemed necessary, the Program Administrator will be responsible for recommending policy changes to the appropriate University administrators.

VIII. Implementation of Policy

The Vice President for Financial Affairs and Administration through the Associate Vice President for Financial Affairs is responsible for procedures to implement this policy.

The University of Alabama at Birmingham
School of Health Professions
Department of Clinical & Diagnostic Sciences
NUCLEAR MEDICINE TECHNOLOGY PROGRAM

Appendix H:
Identity Theft Prevention Policy
UAB List of Covered Accounts

As of March 1, 2011

The definition of a "covered account" is promulgated by the following regulatory agencies: Federal Trade Commission (FTC) 16 CFR 681.2; Department of the Treasury Office of the Comptroller of the Currency (OCC) 12 CFR 41.9; Federal Reserve System (FRS) 12 CFR 222.9; Federal Deposit Insurance Corporation (FDIC) 12 CFR 334.9; Department of the Treasury Office of Thrift Supervision (OTS) 12 CFR 571.9; National Credit Union Administration (NCUA) 12 CFR 717.9.

A "covered account" means: (i) an account that a financial institution or creditor offers or maintains, primarily for personal, family, or household purposes, that involves or is designed to permit multiple payments or transactions, such as a credit card account, mortgage loan, automobile loan, margin account, cell phone account, utility account, checking account, or savings account: and (ii) any other account that the financial institution or creditor offers or maintains for which there is a reasonable foreseeable risk to customers or the safety and soundness of the financial institution or creditor from identity theft, including financial, operational, compliance, reputation or litigation risks.

The University will evaluate its accounts and customer relationships to update this list periodically as required by the regulations.

Covered Accounts Identified as of March 1, 2011:

1. **Banner Student Records** - Undergraduate Admissions, Graduate Admissions, Registrar's Office, Financial Aid, Housing Office, Student Accounting, and all other departments with access to student records in Banner
2. **Student Loan Accounts** - Office of Student Accounting Services
3. **Campus Card** – UAB Campus Card Office
4. **Blazer Bucks Accounts** (BlackBoard) - UAB Campus Card Office
5. **Advancement Accounts** (Banner: Alumni and other Contributors) - Office of Development, Alumni, and External Relations
6. **Retiree Payment Accounts** - Benefits Office - Human Resources Management
7. **Leave Without Pay Benefits Accounts** - Benefits Office - Human Resources Management
8. **Patient Accounts** - Dental Clinics - School of Dentistry
9. **Patient Accounts** - Optometry Clinic – School of Optometry