CATALOG

VANDERBILT UNIVERSITY MEDICAL CENTER

CENTER FOR PROGRAMS IN ALLIED HEALTH

July 1, 2018 – June 30, 2019

Vanderbilt University Medical Center
1301 Medical Center Drive
Nashville, Tennessee 37232
(615) 343-6696
www.mc.vanderbilt.edu/alliedhealth

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ABOUT VANDERBILT UNIVERSITY MEDICAL CENTER

Website: www.mc.vanderbilt.edu

Vanderbilt University Medical Center (VUMC) is a comprehensive healthcare facility dedicated to patient care, research, and biomedical education. Its reputation for excellence in each of these areas has made VUMC a major patient referral center for the Mid-South. Each year, people throughout Tennessee and the Southeast choose VUMC for their health care needs, not only because of its excellence in medical science, but also because the faculty and staff are dedicated to treating patients with dignity and compassion.

The Vanderbilt Clinic accommodates over 573,000 outpatient visits, in addition to hospital admissions in excess of 31,000, with a substantial number of patients from outside Tennessee. A principal referral center for physicians and patients throughout the region, Vanderbilt University Hospital and The Vanderbilt Clinic consistently rank among the premier health care facilities in the United States. Many of the services offered by Vanderbilt University Medical Center have been ranked among the foremost programs in the nation by U.S. News &World Report's listing of "America's Best Hospitals". Vanderbilt's programs in cancer; cardiology and heart surgery; digestive tract; ear, nose and throat; hormonal disorders; gynecology; orthopedics; respiratory care; rheumatology; and urology were assessed among the top such programs in hospitals nationwide.

Vanderbilt University Medical Center (VUMC) is a major medical treatment, research and education institution comprised of many hospitals and buildings, including Vanderbilt University Hospital (VUH), Rudolph Light Hall (LH), Medical Center North (MCN), Vanderbilt Children's Hospital (VCH), Medical Center East (MCE), and The Vanderbilt Clinic (TVC). VUMC serves the health care needs of the Nashville community and the surrounding areas of Middle Tennessee, southern Kentucky and northern Alabama. VUMC is dedicated to patient care, biomedical research, and education for health care professionals.

Among Vanderbilt's specialty clinics are the Henry-Joyce Cancer Clinic and Clinical Research Center, the patient care arm of the Vanderbilt-Ingram Cancer Center (VICC). The VICC, a National Cancer Institute Clinical Cancer Center, provides comprehensive care for cancer patients along with basic and bench-to-bedside research. The state-of-the-art research program provides the latest breakthroughs in treatment for our patients. Additionally, VUMC's Level I trauma center, comprehensive burn center, LifeFlight air emergency transport program, the Voice Center, the Vanderbilt Bill Wilkerson Center, and 19 specialty services of Children's Hospital, including the Level IV neonatal intensive care unit, are the only programs of their kind in middle Tennessee.

VUMC HISTORY AND OWNERSHIP

Vanderbilt University Medical Center has been operating non-degree allied health programs since 1929 under Vanderbilt University who is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools; accreditation has been maintained since 1895. Vanderbilt University Medical Center is a Tennessee nonprofit corporation 501(c)(3) operating six certificate programs, each accredited by a programmatic accreditor.

Until April 2016, Vanderbilt University owned and operated several hospitals and clinics collectively known as Vanderbilt University Medical Center, including Vanderbilt University Hospital, Vanderbilt Psychiatric Hospital, and Monroe Carell Jr. Children's Hospital at Vanderbilt, and their associated clinics. Effective April 30, 2016, Vanderbilt University conveyed the clinical assets used in the operation of Vanderbilt University Medical Center to a newly formed, not-for-profit, tax-exempt corporation, which is similarly named Vanderbilt University Medical Center. Vanderbilt University Medical Center now

operates independently of Vanderbilt University. It is clinically and academically affiliated with Vanderbilt University.

Vanderbilt University Medical Center is authorized by the Tennessee Higher Education Commission. This authorization must be renewed each year and is based on an evaluation of minimum standards concerning quality of education, ethical business practices, and fiscal responsibility.

VUMC Mission

Through the exceptional capabilities and caring spirit of its people, Vanderbilt will lead in improving the healthcare of individuals and communities regionally, nationally and internationally. We will combine our transformative learning programs and compelling discoveries to provide distinctive personalized care.

VUMC CREDO

- We provide excellence in healthcare, research, and education.
- We treat others as we wish to be treated.
- We continuously evaluate and improve our performance.

Credo Behaviors

- I make those I serve my highest priority.
- I respect privacy and confidentiality.
- I communicate effectively.
- I conduct myself professionally.
- I have a sense of ownership.
- I am committed to my colleagues.

VUMC Vision – We value:

- Service to our patients and communities
- Education and research
- Respect for our patients and each other
- Quality, efficiency, and cost effectiveness
- Collaboration and
- Caring careful use of our resources

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CENTER FOR PROGRAMS IN ALLIED HEALTH MISSION STATEMENT

The Center for Programs in Allied Health of Vanderbilt University Medical Center are dedicated to preparing students for excellence in their chosen career and instilling compassion and a commitment to the highest quality of patient care through transformative learning programs and access to the delivery of exemplary healthcare.

ACCREDITATIONS AND APPROVALS

Accreditations and approvals for each program in the VUMC Center for Programs in Allied Health may be found in the program-specific section of this catalog.

VANDERBILT UNIVERSITY MEDICAL CENTER EDUCATIONAL FACILITIES

Vanderbilt University Medical Center (VUMC) is a general medical and surgical facility known as a teaching hospital. The building where the administrative offices of the VUMC Center for Programs in Allied Health is located (1301 Medical Center Drive, Nashville, Tennessee 37232) is over 500,000 square feet in size. The Medical Center encompasses over 20 acres of land that house a variety of facilities from which students in the allied health programs gain knowledge and experience. Each facility has up-to-date medical equipment and supplies to serve the research / patient needs, which in turn provides students the opportunity to utilize, as their program permits, under the supervision of a qualified supervisor. VUMC facilities include the following buildings:

Vanderbilt University Hospital
Vanderbilt University Hospital (VUH) opened in 1980, with the major addition of the Critical Care Tower in 2009. The hospital is dynamic, growing, and dedicated to meeting the most critical and complex needs of our region, continuing Vanderbilt's more than century-old tradition of offering the best in patient care. Many patients seen in the hospitals are from states other than Tennessee, with the majority coming from Kentucky, Alabama, and Mississippi. Adjacent and attached to VUH is Medical Center East, primarily an outpatient services building, but also housing some operating rooms, patient rooms for Labor and Delivery, the Vanderbilt Bill Wilkerson Center and the Vanderbilt Orthopedics Institute.

The Monroe Carell Jr. Children's Hospital at Vanderbilt
The Monroe Carell Jr. Children's Hospital at Vanderbilt opened as a stand-alone facility in 2004, and is a place of hope and healing for pediatric patients and their families. Recognized as one of the premier children's hospitals in the nation by *U.S. News and World Report* for nine years running, Children's Hospital cares for the sickest patients in the region and beyond. Children's Hospital is the most comprehensive pediatric facility in Tennessee, providing services including neurosurgery, cancer treatment, trauma care, transplant, and much more. Children's Hospital operates the region's only Level I pediatric trauma unit and a neonatal intensive care unit with the highest designated level of care. The facility is filled with state-of-the-art equipment and information systems to provide the best treatment for patients. It offers a variety of family accommodations to help fulfill its mission of patient-and family-centered care. In addition, Children's Hospital is a top-ranked teaching and research facility. As a nonprofit organization, the hospital cares for children of Tennessee and surrounding states regardless of their ability to pay.

The Vanderbilt Clinic
The Vanderbilt Clinic (TVC), a comprehensive outpatient facility, opened in 1988 and houses more than 100 medical specialty practice areas, the clinical laboratories, a center for comprehensive cancer treatment, and a day surgery center.

Rudolph A. Light Hall
Light Hall provides classroom and laboratory space for students in the School of Medicine. It houses the Department of Biochemistry, the Department of Molecular Physics and Biophysics, and the Howard Hughes Medical Institute.

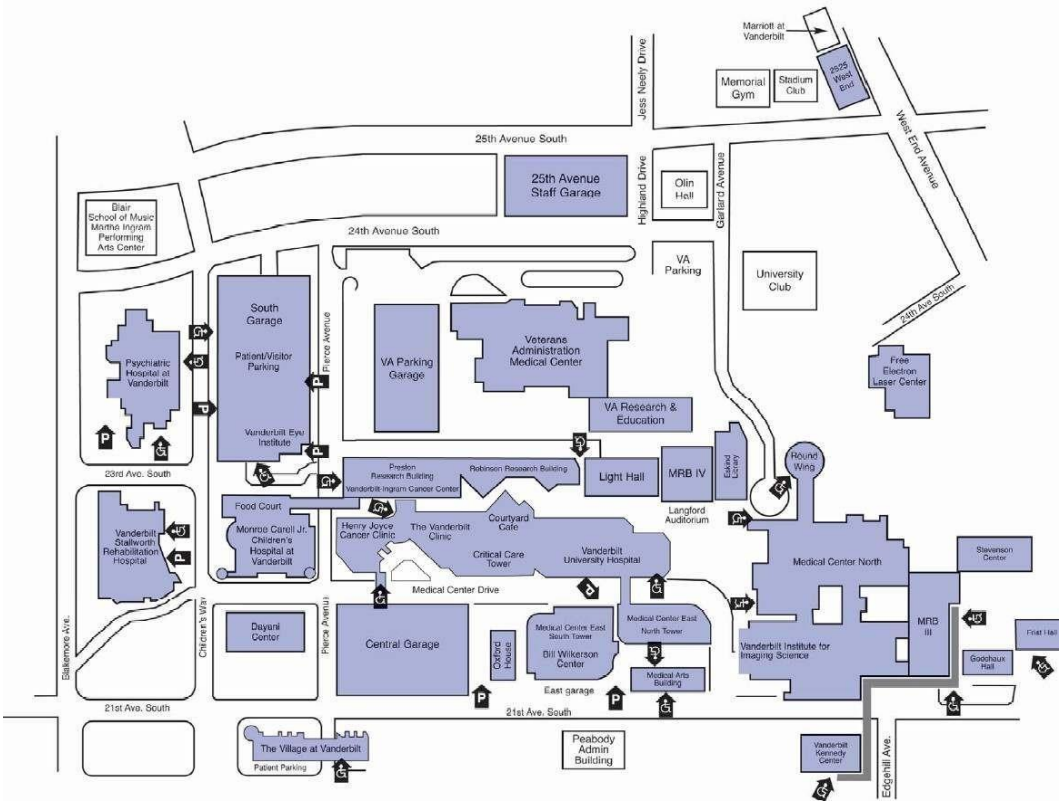
Medical Research Building IV
MRB IV houses a significant amount of wet lab space and supports continued growth in VUMC research programs.

Medical Center North
The Newman Clinical Research Center, an inpatient orthopedic unit, and a general-care unit are inside Medical Center North. The complex also houses laboratories and administrative support services for VUMC. Faculty and administrative offices and research space for medical school departments are in Medical Center North. The original portions of the building were completed in 1925. Since that time a number of connecting wings and buildings have been added.

Vanderbilt Health One Hundred Oaks
This 440,000-square-foot doctors' office suite opened for patient care in 2009 and is designed for easy access off the interstate highway system, abundant surface parking, automated check-in, and integrated services, labs, and radiology. It houses numerous specialty clinics, primary care services, and advanced imaging facilities. *vanderbilthealth.com/100oaks*

Vanderbilt Dayani Center for Health and Wellness
The Vanderbilt Dayani Center is a medically based fitness/ health promotion center that specializes in modifying risk factors, for conditions including cardiovascular disease, weight management, stress, sedentary lifestyle, and smoking. It was the first Certified Medical Fitness Center in Tennessee, is closely aligned with the Department of Physical Medicine and Rehabilitation, and serves patient care, research, and education functions within VUMC. *vanderbilthealth.com/dayani*

Shade Tree Clinic
Shade Tree Clinic is a free health clinic run by Vanderbilt University medical students. Students from multiple professions provide care as part of Interprofessional teams at the clinic, and that care is supervised by physicians and other licensed professionals. Shade Tree Clinic provides a medical home for many Nashville residents with limited resources by providing exemplary primary care, care for acute & chronic illnesses, social services, and patient health education. The clinic is located in East Nashville.



ACADEMIC YEAR 2018-2019 ADMINISTRATIVE CALENDAR VUMC CENTER FOR PROGRAMS IN ALLIED HEALTH

Independence Day	July 4, 2018
Labor Day	September 3, 2018
Thanksgiving Day	November 22, 2018
Christmas Eve	December 24, 2018
Christmas Day	December 25, 2018
New Year's Day	January 1, 2019
Memorial Day	May 27, 2019

These dates are when the administrative offices of the Center for Programs in Allied Health will be closed. Please refer to each program's section in this Catalog for specific program academic calendars, including starting and ending dates for educational activities.

STUDENT SERVICES

Libraries

VUMC students have access and privileges to the Vanderbilt University Jean and Alexander Heard Library System, including the Eskind Biomedical Library. Typical Central Library Hours:

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
10am-Midnight	7:30am-Midnight	7:30am-Midnight	7:30am-Midnight	7:30am-Midnight	7:30am-9pm	10am-9pm

Vanderbilt University's libraries are among the top research libraries in the nation, home to more than eight million items, including print publications, microfilm items, and digital collections. The libraries provide electronic access to tens of thousands of full-text journals and more than 800,000 e-books and other research resources accessible via the campus network, from workstations and circulating laptops in campus libraries, as well as authenticated access (VUnetID and e-password) from off campus. The libraries' website offers searches for articles, books, electronic resources, and more, as well as links to subject liaisons and research guides in many areas of interest.

The Eskind Biomedical Library (EBL) collects and provides access to materials to support the teaching, research, and service missions of Vanderbilt University Medical Center. Each student has access to numerous professional texts and journals through electronic Eskind Biomedical Library resources, a full Digital Library accessible with a VUNet ID and password, at http://www.library.vanderbilt.edu/biomedical/. The building that houses the Eskind Biomedical Library is closed due to construction from August 1, 2017, until September 1, 2018. Students have access to the seven other on-VU campus library buildings that comprise the VU Heard Library while the EBL is under renovation.

Students with personal laptops may access free wifi capability in the libraries. Students may utilize wifi by logging in with their VUNet ID and password.

During each program's orientation students are provided training about how to access to library's physical and online resources. In addition, each year a librarian provides a training session for students and faculty, providing information about online research techniques to enable the fullest access to available resources. In addition, some programs have a library of reference materials resources specific to each respective profession. These libraries are generally housed in the Program Director's office, and students in the program have borrowing privileges. Information about program-specific libraries are provided during each program's orientation.

Dining Facilities

There are several facilities in VUMC where food may be purchased.
Vanderbilt University Hospital – Courtyard Cafe
Vanderbilt Children's Hospital – Food Court
Snack Bars:

- Medical Center North
- Medical Center East
- Vanderbilt University Hospital
- Oxford House

Post Office

There are two branch post offices on campus, one in Medical Center North at B-0106 Medical Center North (Station 17) and one on the lower level of Rand Hall (Station B). Each of these offers all regular services of a branch post office. Stamps are available at the Human Resources Office at the entrance of Medical Center North.

Parking
A parking decal may be obtained from Central Parking Garage. Hours are 7:30 AM to 5:30 PM, Monday through Friday. Payment may be made by cash or check. A state vehicle registration slip must be presented in order to register. Reduced annual parking rates are available for students in VUMC allied health programs.

VUMC Email Accounts
All enrolled students are assigned an official VUMC e-mail account. All school-wide and program-specific communications are provided via e-mail through their VUMC account. Students are expected to check their VUMC e-mail daily in order to be aware of important updates.

VUMC Identification Badges
During orientation, VUMC-issued photo identification badges are issued to students. The badges must be worn during all program activities as a means of identification. Hospital and library access are also provided through the identification badge; entry to clinical areas for educational activities is not allowed without an official VUMC-issued photo identification badge.

Orientation
Orientation to VUMC and to each program is held prior to the first day of class to welcome and acclimate new students to Vanderbilt University Medical Center. Administrative staff and Program Directors are present to provide information to help new students transition into the academic environment. Students complete and sign Enrollment Agreements on the first day of orientation.

Occupational health screening also takes place during orientation. Students are required to provide specific health-related documentation during orientation in order to be a student at VUMC. Please contact the Program Director for more information regarding this matter.

Student Information Form
The Student Information Form is included in student orientation materials. Students are required to complete the form and submit to the Program Director or other designated administrator. During the year students are required to notify the Program Director of any change of address, telephone number or other information that appears on this form.

Accessibility for Disabled Students
VUMC uses the definition of disability set forth in Section 504 of the Rehabilitation Act of 1973, which states that a disabled person is anyone who:

- Has a physical or mental impairment which substantially limits one or more major life activities;
- Has a record of such impairment;
- Is regarded as having such impairment.

VUMC admissions decisions are made using criteria independent of an applicant's disability. Students with disabilities desiring to enroll in a program at Vanderbilt University Medical Center must be able to meet the admissions standards of VUMC.

VUMC will make efforts to provide reasonable accommodation to qualified individuals with disabilities to the extent that such accommodation is readily achievable. Though VUMC takes the needs of student with disabilities seriously, it is not able to guarantee that all services can or will be provided.

Specifically, accommodation that is unduly burdensome or fundamentally alters the nature of the service, program or activity may not be provided.

In order to receive accommodation, a student must meet the following criteria:

- Have a documented disability (documentation must be supplied) that presents a significant barrier to the educational process, and
- Request services by contacting the Director of the Center for Programs in Allied Health.

Students are required to provide medical documentation as part of their request for accommodation. All medical information remains confidential and is released to other VUMC personnel only with the student's written permission.

Emergency Preparedness and Emergency Numbers

Medical Emergency – 1-1111
Occupational Health – 6-0955
Environmental Health and Safety – 2-2057
Plant Services – 3-4443
Risk and Insurance Management – 6-0660
Environmental Services – 3-1000
Administrator On-Call – (VU Operator)
VUPD/Security – 2-2745
Fire – activate the nearest fire alarm

Campus Security and Crime Prevention

Of primary concern to VUMC is the safety of students, faculty and staff members and the protection of assets of the Medical Center. VUMC partners with the Vanderbilt University Police Department (VUPD) for VUMC campus security. VUPD maintains a Medical Center precinct and provides a variety of safety and crime prevention services to the VUMC community.
(https://police.vanderbilt.edu/about/medprecinct.php)

Walking escorts are available for students who wish to be escorted when walking from point to point on campus during periods of darkness. Telephone the security dispatcher at extension 1-8888. This service is also provided for those who arrive at or leave work during the early morning or late night periods of darkness. Because the demand for escorts heightens at night, a delay should be expected at that time.

VUPD produces a number of information resources available to VUMC students online, including a daily crime log, crime statistics, and the Annual Security and Fire Safety Report. These resources are available online to students at all times (https://police.vanderbilt.edu/). In addition, AlertVU is available to all members of the VUMC community and provides real-time emergency notifications by phone call, text and/or email, as specified by the user's preference.

Shuttle bus service between parking facilities and Vanderbilt University Medical Center is available and operates according to the schedule published on the VUMC Parking and Transportation Services website. The shuttle buses are accessible to persons with disabilities.

VUMC urges students to be aware of conditions that could potentially jeopardize their safety, to avoid hazardous situations by taking common sense measures (e.g., park in lighted areas, keep car locked, maintain possession of items such as purses or bags), and to report any suspicious activities to program or school leadership or to law enforcement.

Occupational Health Center and Off-Campus Health Resources

Students may access urgent care services at the VUMC Occupational Health Clinic (OHC). The OHC helps protect VUMC faculty, staff and students, through a variety of programs used to monitor exposure to workplace hazards and treat work-related illness and injury. The OHC is located on the VUMC campus, at 1211 21st Ave. South, Medical Arts Building, Suite 640, Nashville, TN 37212. OHC also offers Faculty/Staff Express Care, a separate walk-in clinic for minor illnesses such as colds and flu.

Off campus, many Vanderbilt Health Clinics (walk-in) serve the greater Nashville community and may be utilized for illness. The Vanderbilt Health Belle Meade and the Vanderbilt Health Franklin at Highway 96 are frequented, as needed, by student. Services at both walk-in clinics are not free of charge, however, insurance may be accepted, depending on network participation.

VUMC Employee Assistance Program (EAP)

Vanderbilt University Medical Center offers an Employee Assistance Program known as Work/Life Connections-Employee Assistance Program (EAP):

Location: B018 Medical Arts Building (MAB)
Hours: 8:00 a.m.-5:00 p.m., Monday through Friday
Telephone: 615-936-1327

The Employee Assistance Program (EAP) provides confidential, professional consultation, assessment, counseling and referral for students who have psychological, behavioral and/or social problems adversely affecting job performance and/or emotional health and well-being. The EAP focuses on improving the health and well-being of its clients by offering prevention services, early identification, intervention and remediation of behavioral health problems and facilitates access to necessary referral services. The EAP offers assistance for alcohol/substance abuse problems; emotional/behavioral problems; family/marital problems; financial and legal concerns; and stress-related problems.

Employment Assistance

VUMC makes every effort to assist graduates in developing job-obtaining skills such as resume and cover letter development, interviewing skills and appropriate post-interview follow-up activities. VUMC cannot and does not guarantee employment or salary, but it makes every effort to assist each graduate in his or her job search.

Academic Advising / Tutoring

Advising for the purposes of guiding students in appropriate course selection is considered an essential part of student support services provided by VUMC and is routinely provided to students by programs. VUMC also provides students any tutoring support that may be required by a student. Academic advising for students at academic risk may be initiated by VUMC personnel or by the student when the need is identified. Students receive advising from the institution around attendance and financial aid. VUMC functions in compliance with the Americans with Disabilities Act of 1990 (ADA).

Career Assistance and Planning

Upon completion of the programs, VUMC cannot guarantee employment in the field of designated completion; however, each Program Director and program faculty offer career planning within each designated program area. Program Directors have established rapport and work with institutions across the country and, from time to time, are able to inform students of openings in the field. Each student is responsible for securing his or her own employment once completing the program.

Professional Liability Insurance

Students enrolled in VUMC programs are covered by the Vanderbilt University Medical Center liability insurance policy. In some cases this cost is included in the cost of tuition; in others the cost is paid by students as a fee. This coverage is limited only to the care participated in by students at the direction of the Program Director or designee, whether at VUMC or an official clinical education affiliate.

ADMISSION

Minimum Requirements for Admission

All applicants must possess a high school diploma, a high school diploma equivalency, a current Tennessee license in the field for which the training is intended, or postsecondary credit in a degree program. If the applicant has a post-secondary degree (i.e., Associate's, Bachelor's or Master's), a copy of it may be submitted in lieu of a copy of the high school diploma. A physical copy of the original diploma (or its equivalent) or degree must be verified and on file no later than 30 days after classes commence.

The evidence of graduation must include the name of the institution, city, state, and graduation year, and that the institution or program was approved by the applicable governing or state authority. VUMC periodically verifies that the institution or program was approved by the applicable governing or state authority. A signed, VUMC-approved attestation will be accepted in lieu of a copy of the high school diploma. Applicants should speak with the director of the program to which they are applying for more information.

Some programs may have additional education requirements for admission. Please check the relevant program section in this catalog for additional information. For programs requiring college degree, a physical copy of the original college or university diploma or its equivalent must be provided, including the name of the institution, city, state and graduation year. For programs requiring a college degree, the college diploma satisfies documentation requirements of a high school education (copy of high school diploma does not need to be submitted).

All students admitted into VUMC programs are required to undergo a criminal background check report prior to matriculation. Applicants are made aware on the application signature page that their VUMC enrollment is conditional upon passing a criminal background check, and instructions regarding the process of obtaining the background check are included in the student's letter of admission. VUMC requires that criminal background check reports be delivered by the screening provider directly to VUMC. VUMC will not accept background check reports from students. Programs may require additional screening, such as fingerprinting and drug screening. Information for any additional required screenings is provided by programs to students at the time of admission.

A criminal record will jeopardize a graduate's eligibility for employment; therefore, students are advised to review any criminal record concerns with the relevant Program Director prior to deciding to apply. In the event an adverse criminal history report is returned, it is reviewed by the Program Director and the Director of the Center for Programs in Allied Health. The VUMC Executive Vice President for Academic Affairs may also be consulted. Decisions regarding non-admission of students deemed unfit due to the information in criminal background reports are final.

Late Enrollment

Vanderbilt University Medical Center does not allow late enrollment.

Admission/Application Procedures

Each program establishes its own admission and application procedures. Please refer to the program- specific admission and application procedures in this Catalog.

Program Requirements for Admission

Specific requirements for admission are listed under each program offered. Please refer to program-specific admissions requirements in this Catalog.

Blended Programs' Admission Requirements (Distance Education)

Students applying for blended programs are assessed to ensure they have the appropriate skills and abilities necessary to succeed in the distance education components of these programs. This assessment

is administered through Smarter Measure and does not take place until a student is admitted into the program. The assessment is related to the student experience with online learning management systems, in general, as well as general computer and internet experience. Only students who are deemed competent with online systems will be admitted to these programs. Experience with VUMC-specific systems is not a requirement, and training in the VUMC Learning Management System is provided early in the student's educational program.

TRANSFERABILITY OF CREDITS DISCLOSURE

Credits earned at Vanderbilt University Medical Center (VUMC) may not transfer to another educational institution. Credits earned at another educational institution may not be accepted by VUMC. You should obtain confirmation that VUMC will accept any credits you have earned at another educational institution before you execute an enrollment contract or agreement. You should also contact any educational institutions that you may want to transfer credits earned at VUMC to determine if such institutions will accept credits earned at VUMC prior to executing an enrollment contract or agreement. The ability to transfer credits from VUMC to another educational institution may be very limited. Your credits may not transfer and you may have to repeat courses previously taken at VUMC if you enroll in another educational institution. You should never assume that credits will transfer to or from any educational institution. It is highly recommended and you are advised to make certain that you know the transfer of credit policy of VUMC and of any other educational institutions you may in the future want to transfer the credits earned at VUMC before you execute an enrollment contract or agreement.

_____ _____

Signature of Student Date

International Applicants

VUMC is not able to admit international students at this time. Green Card holders are not considered International Applicants and are therefore eligible for admission consideration.

Instructional Language

At VUMC all instruction occurs in English. VUMC does not offer English as a Second Language (ESL) instruction. Applicants whose native language is not English may be required to submit scores on the Test of English as a Foreign Language (TOEFL) or International English Language Testing Service (IELTS) as part of the admission process. Program-specific requirements are provided in program sections of this catalog.

Foreign Transcript Evaluation

Applicants whose prior education was obtained at a non-U.S. Institution are required to submit with the application for admission a full translation of the transcript into U.S. equivalency (i.e., equivalence of credits per course and of degree conferred; translation into English language only is NOT accepted). This translation must be conducted and provided by an independent evaluation provider. The following are examples of foreign transcript and degree evaluators. VUMC does not endorse any evaluators.
Foreign Consultants: http://www.foreignconsultants.com/
Educational Credential Evaluators: http://www.ece.org/
Educational Perspectives: http://www.educational-perspectives.org/
International Consultants of Delaware: http://www.icdeval.com/
International Research Foundation, Inc.: http://www.ierf.org/
World Education Services: http://www.wes.org/

Student Technology Requirements (All Students)

Students must have a computer (desktop or laptop) with the minimum system requirements, below. The Perfusion, Neurodiagnostic Technology, and Diagnostic Medical Sonography Programs require students to have laptops (with the same minimum requirements). Please see program-specific information in this catalog for additional program requirements.

Hardware:

- 1.4 Ghz Processor
- 13-inch or larger display, with minimum 1024×768 resolution
- Wireless-g, -n, or -ac capability
- Note: Not supported: Chromebooks, Netbooks

Operating System:

- Windows 8, 10
- Mac OS X 10.9 or higher
- Note: Not supported: Linux, Virtual Machines

Browsers:

- Latest versions of Chrome and Firefox (recommended as default browsers)
- Windows: Internet Explorer 11 or higher
- Mac: Safari 11.0.3 or higher
- Note:
  - Cookies must be enabled
  - JavaScript must be enabled

Latest versions of:

- Acrobat Reader
- Flash Player
- Silverlight Player

All students are required to adhere to VUMC computer use requirements as established under Policy OP 10-10.30, Social Media Policy and Guidelines, which is located in Appendix B of this catalog.

Health Insurance

All Center for Programs in Allied Health students are required to be covered by health insurance during their training. VUMC does not offer a student health insurance policy. Students may seek out private health care insurance options or enroll via a government health care exchange. The student must maintain his/her insurance through his/her tenure in the program and must provide proof of insurance (copy of health insurance card or letter from insurer) during new student orientation to the program and annually while enrolled as a student at VUMC.

Immunization and Health Records

Upon acceptance, students must provide written documentation of the following:

- Two (2) negative TB skin tests within the past twelve (12) months with the most recent being within the past three (3) months. If history of a positive skin test is present, a chest x-ray within the past six (6) months will be necessary.
- If born on or after January 1, 1957: Two (2) live measles vaccinations after the first birthday at least one month apart OR MMR vaccination since 1989 OR laboratory evidence of immunity to rubeola.
- Those born in 1957 or later need two immunizations for measles, like the MMR (at least one month apart, given after first birthday). Alternatively, documentation of a positive IgG blood test for measles will satisfy this requirement.
- Laboratory evidence of MMR vaccination or immunity to mumps.
- Laboratory evidence of immunity to varicella (chickenpox) or immunization series.
- Hepatitis B immunization (series of 3 injections), immunization series in progress or informed refusal of immunization.
- Tetanus/Diphtheria booster within the past 10 years is recommended, but not required.
- Any student with clinical activities in the Children's Hospital (including MCJCHV clinics), Women's Health, and Emergency (including LifeFlight) is required to have documentation of one booster dose of pertussis vaccine in the form of Tdap. Routine adult Td boosters and the childhood DTP/DTaP vaccines do not satisfy this requirement.

All students are required to receive the influenza vaccine by December 1st of each year. Students may apply for exemption from the influenza vaccine for religious or health reasons.

Readmission Policy

Students dismissed from a VUMC program may be considered for readmission at VUMC on a case-by-case basis. Students must apply for admission consideration, and the entire application and selection process must be carried out. Students applying for readmission may be asked to interview with the Director of the Center for Programs in Allied Health. A student may be readmitted to VUMC no more than one time.

Reapplying students may be required to repeat coursework taken during a previous period of study at VUMC. The eligibility of coursework previously completed at VUMC to be applied toward graduation requirements following readmission will be determined on an individual basis, and the decision will be based on the following:

- Length of absence
- Reason for withdrawal (personal, illness, academic, etc.)
- Performance in program-recommended/required remediation, if any, during original period of enrollment
- Whether or not the student was in good academic standing when the withdrawal took place

Didactic courses previously completed at VUMC will be considered for credit toward certificate graduation requirements per the VUMC Transfer of Clock Hours or Credit to VUMC Policy. Students may be tested to determine continued mastery of knowledge previously covered in courses. No credit for prior clinical courses, internships, labs or practica is given. Those requirements must be taken regardless of the circumstances of the student withdrawal.

Employment Requirements in Allied Health Fields

In Allied Health fields, states and employers may require licensure, certification, registration, etc., before an individual may be employed in a given field. Licensure eligibility and other requirements vary from state to state. Students are advised to check licensure and certification guidelines for the states in which they plan to seek employment.

Transfer of Clock Hours or Credit to VUMC

VUMC evaluates for transfer credit all clock hours and/or credit earned at institutions accredited by organizations recognized by the U.S. Department of Education or the Council for Higher Education Accreditation (CHEA). Credits earned at other educational institutions are reviewed by VUMC and may or may not be accepted by VUMC as credit toward VUMC programs' graduation requirements. It is the responsibility of prospective students to clearly understand which credits earned at other institutions will and will not be accepted by VUMC before executing an enrollment agreement with VUMC.

Clock hour or credit transfer requests must be made by the student in writing during the admissions process. Official evaluation of a collegiate transcript is conducted upon receipt of an official transcript directly from the institution at which the courses under consideration were earned. It is the responsibility of the student to ensure that VUMC receives all official transcripts. An official transcript must be provided from each institution from which credit and/or clock hours are to be transferred. Transcripts provided become the property of VUMC.

Up to 25% of program clock hours and/or credit may be accepted for transfer, depending on the determination of equivalency. Only hours or credits for which a grade of C or better was awarded and that were earned within the past five years are eligible for transfer consideration. VUMC may ask the student to provide additional documentation to establish coursework completed, and VUMC may require testing and/or demonstration of skills in order to verify student competency related to requested transfer credit/clock hours.

Advanced Placement and Experiential Learning

VUMC does not accept hours toward advanced placement through challenge examinations, achievement tests, or experiential learning.

Transfer of Credits or Clock Hours to Other Institutions

Transferability of credits varies considerably from institution to institution. Vanderbilt University Medical Center makes no representation whatsoever regarding transfer or acceptance of VUMC credits by any other institution. Vanderbilt University Medical Center does not guarantee the transferability of its credits to any other institution unless there is a written agreement with another institution explicitly denoting transferability.

Transferability of Credit Disclosure

You should also contact any educational institutions that you may want to transfer credits earned at VUMC to determine if such institutions will accept credits earned at VUMC prior to executing an enrollment contract or agreement. It is highly recommended, and you are advised, to consult with all educational institutions in which you consider transferring credit earned at VUMC before you execute an enrollment contract or agreement.

GRADUATION REQUIREMENTS

Certificates for each VUMC program are awarded based on the successful completion of all graduation requirements for each program. Details regarding each program's graduation requirements are provided in the program-specific section of this catalog. All programs require students to maintain Satisfactory Academic Progress, the standards for which are outlined in this Catalog.

All students are required by VUMC to complete an exit interview prior to graduation. Also, in order to graduate, students must have no outstanding financial balance with VUMC Center for Programs in Allied Health (this does not include educational loans to third-party lenders).

SATISFACTORY ACADEMIC PROGRESS (QUALITATIVE AND QUANTITATIVE ELEMENTS)

All VUMC Students are required to maintain Satisfactory Academic Progress (SAP). SAP is a measure that consists of both qualitative (e.g., grades) and quantitative (e.g., number of hours completed in the clinical setting) measurements. Both measurements are evaluated on a regular basis for each program. Details about the timing and frequency of SAP review for each program are contained in the program- specific sections of this catalog. Each program's SAP requirements are also stated within each program section of this catalog. In order to maintain Satisfactory Academic Progress, a student must meet at all times the minimum standards established by each program for both qualitative and quantitative measures.

This VUMC Satisfactory Academic Progress policy applies to all VUMC students. These standards are consistently applied by each program to its students, regardless of financial aid status. In order to graduate, a student must successfully complete all courses in the program with the designated minimum score for passing (which varies from program to program).

Qualitative Elements of SAP

Qualitative Elements of SAP – General Information – Qualitative measurement consists of a student's grades, whether expressed numerically or with letter grades (see Grading Scale chart below). Some programs may calculate these grades into a cumulative Grade Point Average (GPA). Some courses may be graded according to the pass/fail system. Some programs use competency-based assessment as a qualitative measure in addition to a grading scale. In these cases student performance of competency-related tasks is assessed in order to determine whether or not a student has obtained competency (pass) or not (fail). Each program-specific section of this catalog provides additional details regarding each program's qualitative measurement.

Qualitative Elements of SAP -- Grading Scale*

Scale	Grade	Definition	GPA
100–90%	A	Excellent	4.0
89-80%	B	Good	3.0
79-70%	C	Satisfactory	2.0
69–0%**	F	Inadequate**	0.0
	P	Pass - Any course with a "P" grade is not calculated into the grade point average.	
	F	Fail - Any course with an "F" grade is not calculated into the grade point average. However, the course must be repeated and passed to graduate.	

	I	Incomplete - May be used at the discretion of the instructor in those cases in which the student is not able to complete work in the normal time. In those instances, the student and instructor develop a written plan for an extension to provide work by a specific date that falls within the period of time specified by the relevant program's requirements (but in no circumstances greater than one month). An "I" that is not replaced by a letter grade within the period of time specified by the relevant program's requirements, due to unsatisfactory completion of the student's plan, will be changed to an F after the period specified by the program (a period not to exceed one month). Any course with an "I" grade is not calculated into the grade point average. Once a grade is assigned to the course (when conditions are met that allow for the removal of the "I" and assignment of a final grade), that grade will factor into the student's GPA.
	W[±]	Withdrawal – Utilized when a student leaves the course due to an approved leave-of-absence or withdraws from the school prior to the scheduled completion of a course. Any course with a "W" grade is not calculated into the grade point average.
	R	Repeat - Some programs allow students to repeat courses. In those programs, for any course that is repeated, a Repeat will be provided as the grade for the first attempt at the course. Any course with an "R" grade is not calculated into the grade point average. However, courses will be considered hours / credit hours attempted for the purpose of determining maximum time frame. Please refer to each program's student handbook for information about whether students are allowed to repeat courses in any given program.

*Programs may, at their discretion, subdivide each grade into categories indicating plus (+) or minus (-) performance for a given grade level on the grading scale (e.g., A-, B+, C+, etc.). Individual program sections of this catalog contain information on program-specific grading systems.

**Programs may, at their discretion, establish a failing grade threshold higher than the institutional minimum failing grade as indicated above (69 and lower). Individual program grading sections in this catalog provide program-specific information on failing grade thresholds. Under no circumstances may a program establish a failing grade threshold lower than the institutional threshold grade (69 and lower). All programs must apply and enforce their failing grade thresholds uniformly among students enrolled in the program.

[±] Non-punitive grades for courses awarded by the school include "W". Non-punitive grades are not included in the computation of a student's overall Cumulative Grade or Point Average. The clock hours or credit hours associated with any courses for which non-punitive grades are assigned are included as credits attempted when calculating the student's Maximum Time Frame and credit completion percentage.

Qualitative Elements of SAP -- Minimum Average Required for Satisfactory Academic Progress – All students must maintain a minimum qualitative average (expressed as percentage points, grades, GPA and/or competencies passed) as defined by each program in order to maintain Satisfactory Academic Progress. Students must achieve the minimum qualitative average at each review of SAP to maintain Satisfactory Academic Progress. Students not maintaining SAP will face remedial action, up to and including dismissal from the program.

The table below presents the minimum qualitative average required for each program. More detailed information is available in the program-specific section of this catalog for each program.

Program Name	Term 1	Term 2	Term 3	Term 4
Dietetic Internship	70% average (rotations & assignments)	80% average (rotations & assignments)		
Medical Laboratory Science	75% average	75% average		
Diagnostic Medical Sonography	75% average	75% average	75% average	75% average
Nuclear Medicine Technology	70% Didactic / 75% Clinical	70% Didactic / 75% Clinical		
Perfusion	75% per course	75% per course	75% per course	75% per course
Neurodiagnostic Technology	70% average	70% average	70% average	70% average

Students not completing required coursework or hours will be assigned a failing grade for the course. Additional adverse actions may also arise from not completing required coursework or hours.

Non-Credit / Remedial Courses / Proficiency Credit – VUMC does not offer non-credit or remedial courses, or grant proficiency credit.

Student Grievance Concerning Grades – Students should seek redress of a problem with a grade as soon as possible after receiving the grade and in no case later than one (1) week after the grade is released. Students should confer directly with the course director about grade concerns. Every effort should be made to resolve the problem fairly and promptly at this level. If the student cannot resolve the problem through discussion with the course director, the student should formally request an appeal from the Program Director within one (1) week of talking with the course director. If the Program Director is the course director in question, the appeal should be made to the Director of the Center for Programs in Allied Health. The decision of any appeal is final.

Quantitative Elements of SAP

For all programs, the quantitative measurement of SAP consists of a student's satisfactory completion of program hours, based on a rate-of-progress calculation. The rate of progress calculation is the percentage of total hours completed of those hours the student has attempted. This measurement ensures that all students progress at a rate sufficient to allow them to complete their programs within the maximum time allowed. Each program establishes a number of hours to be attempted and a number required to be completed in order for the student to maintain Satisfactory Academic Progress. More information is available in each program's section in this catalog, but an outline of program requirements is presented in the following table.

Students' progress against quantitative SAP requirements is measured at least once a term. There are two institutional terms per academic year. The first term is defined as the period between July 1 and December 31. The second term is defined as the period between January 1 and June 30. Schedules for

each program's rotations and other program elements may have different starting and ending dates from the institutional term dates.

Transfer and Readmitted Students/Students Changing Majors
If a student transfers to VUMC from another postsecondary institution, the transfer credits that were accepted by VUMC will count as credits attempted and credits completed for purposes of calculating the student's quantitative progress. The corresponding grades will not count toward the student's qualitative progress.

If a student is re-admitted into VUMC, changes program of study, or seeks to earn an additional credential, the credits that are applicable to the student's current program of study will be included in determining the student's satisfactory academic progress standing and the appropriate evaluation level for the student in terms of establishing the total number of credits attempted and completed at each of the student's evaluation periods.

Students receiving federal financial aid may repeat a course in accordance with the VUMC academic policy. Credits from both course attempts will be counted in total credits attempted and in minimum cumulative credits completed at VUMC, but only the highest grade earned will be included in the calculation of minimum cumulative GPA. Credits from both course attempts will also count towards the Maximum Time Frame for Completion. Students may receive financial aid for each repeated course provided that a student may not repeat a passed course more than once.

Progress Evaluations and Reports

Each student's progress in completing the program is reviewed during a progress evaluation monthly. During these reviews the student's Cumulative Grade (or Point) Average and rate of progress in completing program hours are discussed with the student, and the student receives academic, attendance and/or financial aid advising from the school, as the school deems necessary. Students will receive a written progress report containing a summary of the student's grades and successfully completed hours.

Students are notified in writing should they fail to meet the minimum standards of Satisfactory Academic Progress during an evaluation period/term. Students who fail to maintain SAP in an evaluation period are placed on SAP Warning, unless there are two or fewer terms left in the program following the term for which the evaluation is provided, in which case the student will be placed on Academic Probation. More information on Academic Probation is contained in the Academic Probation section of this catalog.

SAP Warning: Each program establishes a timeframe for its SAP warning period, but in no case does a SAP Warning Period last more than one term. Student loan funds may be disbursed during SAP Warning periods. When placed on SAP Warning, students are provided notification in writing that outlines the reasons why the student has been placed on SAP Warning and the requirements the student must meet in order to be removed from SAP Warning (an "Academic Plan"). The Academic Plan is designed to bring the student into compliance with Satisfactory Academic Progress standards within a single term. The student's Academic Plan and progress toward its completion will be reviewed with the student during the period of SAP Warning according to the details of the Plan.

At the end of the Warning period, if the minimum standards of Satisfactory Academic Progress are not met a student will be placed on Academic Probation. Students who satisfy the conditions of Satisfactory Academic Progress at the end of the Warning period will be returned to Satisfactory Academic Progress status.

School personnel, including the appropriate instructor, the Program Director, the Assistant Program Director, and/or the Director of the Center for Programs in Allied Health are available to discuss any concerns students may have.

Academic Probation

Students failing to maintain Satisfactory Academic Progress as defined by their program may, at the discretion of the program, be placed on academic probation. When placed on academic probation, students are provided written notification that outlines the reasons why the student has been placed on probation and the requirements the student must meet in order to be removed from probation (an "Academic Plan"). The Academic Plan is designed to bring the student into compliance with Satisfactory Academic Progress standards within a designated period of time as defined by the Program Director in the Academic Plan. The student's Academic Plan and progress toward its completion will be reviewed with the student during the period of Probation according to the details of the Plan.

Students are not allowed to have more than one period of probation while enrolled in their program. Students on probation who do not successfully complete the terms of their Academic Plan will be provided the opportunity to withdraw. If the student refuses to withdraw, he or she will be dismissed from the program. Students on probation who successfully complete the terms of their Academic Plan will return to Satisfactory Academic Progress standing, and academic probation status will be removed.

***Academic Probation Appeal* –** Students who have been placed on academic probation may appeal the probation decision. To do so, the student must submit an appeal request to the Director of the Center for Programs in Allied Health in writing (email is acceptable) within five (5) working days of being placed on probation. The appeal request must include:

- Information about the circumstances or events that prevented the student from maintaining Satisfactory Academic Progress, and
- What has changed in the student's situation to allow the student to be successful in the future. The student may submit documentation along with the appeal request. The Director of the Center for Programs in Allied Health will review the appeal and any documentation submitted by the student. The Director will also speak with involved faculty and staff. The student will be notified of the outcome of the appeal in writing within five (5) business days of the appeal submission. The decision of the Director of the Center for Programs in Allied Health is final.

If the appeal is not successful, probation status will continue until 1) the student meets the requirements of the Academic Plan and returns to Satisfactory Academic Progress status, or 2) the student fails to meet the requirements of the Academic Plan and subsequently withdraws or is dismissed from the program. If the appeal is successful, the student will not be placed on probation, but the program may impose requirements the student must complete in order to return to Satisfactory Academic Progress.

Student Dismissal Policy

Students who have been placed on probation and do not return to Satisfactory Academic Progress status within the time required by their Academic Plan will be given the opportunity to withdraw or be dismissed from the program. Students may also be dismissed from the program after a period of temporary suspension. Students dismissed from VUMC programs are required to immediately return to VUMC their student IDs and any books, equipment or other materials issued to them by VUMC.

VUMC programs pursue dismissal only after a student has been given a reasonable period of warning and/or probation to address deficiencies. Dismissal may also be recommended at any time for a student who demonstrates either a singular egregious behavior or is involved in one or more serious incidents inconsistent with the expectations for students of VUMC, or in violation of VUMC policy.

A decision to pursue dismissal requires participation of the program director and relevant program faculty and administrators. The Program Director will meet with the student to hear the student's explanation, including any mitigating circumstances in the situation. The Program Director will then meet with relevant program faculty and administrators to consider factors in the situation and render a determination. The dismissal decision is described in a notice to the student written by the Program

Director. This communication is presented to the student, in person whenever possible, by the Program Director, although an in-person meeting may not be possible in all cases.

***Student Dismissal Appeal* –** A student who is dismissed from a VUMC program has the right to appeal. Each appeal is decided on an individual basis. The process for appealing a dismissal decision is as follows:

- The student must submit a written appeal to the Director of the Center for Programs in Allied Health. The appeal must be submitted at least one month prior to the start of the term in which the student wishes to be granted entrance into the program.
- Appeals must include a detailed explanation of the circumstances related to the dismissal. As relevant, such appeals should include official/professional documentation (i.e. medical records, court documents, or any other documentation which would support an appeal).
- The appeal will be reviewed by the Director of the Center for Programs in Allied Health, and approved or denied based on the student's individual circumstances, past academic record, and potential to successfully complete the program.
- The Program Director will provide a written decision to the student within fourteen (14) business days. The decision on the dismissal appeal is final.
- If the student is allowed to re-enroll, the Program Director may place conditions that the student must meet in order to be reinstated. The Program Director may also reinstate the student on a probationary basis. Reinstatement is based on class and space availability.
- If students who are reinstated are required to repeat coursework, that coursework must be satisfactorily completed in order to continue in the program.
- Reinstated students must maintain VUMC student accounts in good standing and may not default on any loan.

VUMC reserves the right to terminate a student's enrollment if, during the student's program of study, VUMC determines that the student has failed to maintain the minimum standards of satisfactory academic progress, or has reached the maximum timeframe (150% of the program credits/hours) without successfully completing the program; failed to comply with the VUMC rules and regulations as published in VUMC's Catalog; or has failed to meet his or her financial obligations. Any refund due to the student or other agencies will be calculated and refunded according to the Tuition Refund Policy. A student who has been dismissed for failure to maintain SAP may reapply for admission; however, until SAP status is re-established, the student will not be eligible for any form of federal financial aid. A student making application for re-admission must first satisfy all current requirements for admission. In addition, if a student's enrollment was terminated for failure to maintain SAP, the applicant's academic records will be evaluated to determine if it is possible for a satisfactory cumulative grade point average to be achieved and if the program can be completed within the maximum time frame.

Temporary Student Suspension

VUMC reserves the right to temporarily suspend a student for conduct disrupting or otherwise negatively affecting the learning environment, pending consideration of the student's situation by the Program Director and other relevant program faculty and administrators. The Program Director will notify the student in writing of the conditions of the temporary suspension. If the student is reinstated, the student will work with the Program Director to address any course work missed during the suspension.

***Maximum Time to Complete Program* –** All students are expected to complete their program of study within an acceptable period of time, as defined by each program, but in no case to exceed 150% of normal

program length. Students failing to complete their program of study within the maximum time will be dismissed from the program. These students are not eligible for reinstatement.

Time spent in any of the following situations/activities counts toward the maximum time to complete VUMC programs:

- Courses for which a grade of incomplete or failure was recorded
- Courses from which the student withdrew
- Repeated coursework (e.g., following prior failure of the course)
- Time in a VUMC-approved leave-of-absence.

PROGRAM DELIVERY

Programs may be offered in the traditional in-resident format, or in a blended distance education format. Programs and courses presented in this catalog may indicate either residential or blended delivery format. Courses may use a combination of lecture, clinical activities, simulation, lab activities, and out-of-class assignments. Courses may be graded by in-class assignments, out-of-class assignments, quizzes, projects, written examinations and practical evaluation of techniques. Students in blended distance education courses should also expect to post to threaded discussions and submit written or weekly assignments electronically.

Residential Format

Students physically attend class for the scheduled hours and complete outside preparation as required. Please see program requirements in the program section of this catalog or in the Program Handbook for additional information about participation and attendance requirements.

Blended Distance Education format

The Blended Distance Education format courses may consist of both classroom and online instruction. Students may be required to attend scheduled classroom sessions and participate in online activities, as defined by the course syllabi. Regular participation in the classroom, as well as online, is required. Please see program requirements in the program section of this catalog or in the Program Handbook for additional information about required participation and attendance.

Off-Site Learning Activities

Students who will be participating in a mandatory, class-wide offsite learning activity, must complete the Release and Waiver of Liability Assumption Form prior to participation. Students are expected to provide their own transportation to and from offsite learning activity locations and assume responsibility for all risks associated with the travel, unless otherwise notified by school officials. Because offsite learning activity are scheduled during classroom training hours, students who do not participate will be considered absent for the class session and are subject to the terms of the current attendance policy. Students who are unable to participate in a scheduled offsite learning activity must contact his/her instructor and/or Program Director prior to the date of the offsite learning activity to inquire as to the possibility of completing an alternative assignment in lieu of offsite learning activity participation.

Learning Management System (Spark Learn)

Spark Learn is a full-fledged Learning Management System based on Moodle. Spark Learn provides user-friendly ways to create advanced tools for dynamic online activities that support each course's objectives. Spark Learn:

- Easily scales up or down in size, depending on the needs of each program/course.
- Allows different course styles, from conducting fully online courses, to face-to-face courses.
- Provides activity modules (such as forums, databases and wikis) to build richly collaborative communities of learning, to deliver content to students and to assess learning using assignments or quizzes.

- Has many features, including:
  - Assignment submission
  - Discussion forum
  - File download
  - Grading
  - Instant messages
  - Online calendar
  - Online news and announcement
  - Online quiz
  - Multimedia integration
  - Question bank
  - Data analysis & reports
  - Device compatibility

Technology Requirements for Spark Learn:

- Hardware:
  - Ghz Processor
  - 13-inch or larger display, with minimum 1024×768 resolution
  - Wireless-g, -n, or -ac capability
  - Note: Not supported: Chromebooks, Netbooks
- Operating System:
  - Windows 7, 8, 10
  - Mac OS X 10.8, 10.9, 10.10, 10.11, 10.12
  - Note: Not supported: Linux, Virtual Machines
- Browsers:
  - Latest versions of Chrome and Firefox (recommended as default browsers)
  - Windows: Internet Explorer 10 or higher
  - Mac: Safari 6 or higher
  - Note: Cookies must be enabled
  - JavaScript must be enabled
- Latest versions of:
  - Acrobat Reader
  - Flash Player
  - Silverlight Player

Spark Learn and Blended Distance Education Orientation

Students attending in a blended format will receive training on the navigation of Spark Learn and be provided with access to an orientation to assist them as they begin their respective programs. Blended distance education students have access to technical support on site through the Spark Learn Technical Support resources listed below.

Spark Learn Technical Support

Students needing technical assistance at any time may contact technical support for each application as found below:

- Knowledge Base of Spark Learn help articles: https://spark-help.app.vumc.org/
- Help Desk Link for Technical Support: https://spark-help.app.vumc.org/supportcenter/open.php
- Administrative Technical Support: (615) 343-6696

Surveys of Enrolled Students and Graduates

Vanderbilt University Medical Center conducts surveys of enrolled students, graduates, and others in order to continuously learn about its effectiveness and to guide improvements on both the institutional and program levels. Feedback from current students and graduates is critical to understanding the

performance of the institution and the programs. Students and graduates are encouraged to participate in these surveys, given the importance of this feedback.

Surveys of students and graduates include at least:

- Course evaluations (administered by programs following conclusion of courses)
- Student satisfaction survey (administered by VUMC at least once a year)
- Graduate satisfaction survey (administered by VUMC at least once a year)
- Program-specific surveys of students (details are available in each program's Program Handbook)

Attendance

Attendance is an essential component of success in VUMC programs. Students enrolled at the institution make a commitment to participate fully in their education by attending classes, clinical rotations, and other educational activities as required by their program of study, and accounting for any absences according to program policy. Each program establishes its detailed tardiness, absence and make-up time policies and procedures. Please refer to the program-specific Program Handbook for more information.

It is the student's responsibility to address any issues related to his/her attendance. A student has the option to determine with the course instructor (in consultation with the Program Director, if needed) whether and under what conditions make-up work will be permitted or required.

All programs have processes to allow for absence in cases of emergency, of illness, of the death of a close relative, or when observing a religious holiday. See program-specific information in this catalog for further details. Each program has policies regarding unexcused consecutive absences and consequences for such, up to and including dismissal from the program.

Leaves of Absence

VUMC offers students the option to take a leave of absence from study at VUMC for medical, family or other reasons. Students must request the leave of absence in advance, except in emergency cases. The student must submit a written request to Program Director, indicating the beginning and ending dates of the leave. Additional documentation to support the request may be required (e.g., medical records, legal records). Each student's request is evaluated on an individual, case-by-case basis.

A student may be granted a leave of absence not to exceed a total of 180 calendar days in a 12-month period. Students may take no more than one leave of absence while enrolled in a VUMC program. Time spent in a VUMC-approved leave-of-absence counts toward the maximum allowable time to complete any VUMC program. Exceptions cannot be made to each program's maximum time for completion (150% of normal program length) for student leave-of-absence or for any other reason.

Academic plans are developed to accommodate students' needs upon returning from leave of absence. At the discretion of the Program Director, students returning from a leave of absence may be required to complete coursework in a different academic year than the one in which they matriculated. Students may be required to present medical documentation in order to return from medical leave-of-absence.

If a student does not return on the documented return date he/she may be dismissed from the program. Students who are eligible to register in the term following the leave but do not do so may be unenrolled and may be required to re-apply to the program. Programs may require students to complete some or all coursework, clinical rotations and other educational activities.

Time spent in leave-of-absence counts toward the maximum time allowed to complete VUMC programs. It is the student's responsibility to be aware of these limits for the program in which the student is enrolled.

ADMINISTRATIVE POLICIES, RULES AND REGULATIONS

Enrollment Agreement

Students are required to sign an Enrollment Agreement with VUMC at the beginning of orientation. A review copy of the Enrollment Agreement is provided to students prior to their arrival on campus.

Financial Responsibilities / Estimated Cost of Attendance

Each VUMC Program's cost of attendance for the academic year beginning July 1, 2018 and ending June 30, 2019, is as follows (tuition and fees other than Books/Laptop are not estimates; students will be responsible for the amounts for those items as they appear below):

2018-2019 Estimated Cost of Attendance

Certificate Programs	Credit/Clock Hours	Application Fee	Tuition	Books and Fees*	Total Cost
Diagnostic Medical Sonography	2295 Clock Hours	$50.00	$14,000.00	$4,743.00	$18,793.00
Dietetic Internship	1286 Clock Hours	$50.00	$12,500.00	$4,475.00	$17,025.00
Medical Laboratory Science	1951 Clock Hours	$50.00	$7,500.00	$3,218.00	$10,768.00
Neurodiagnostic Technology	2028 Clock Hours	$50.00	$7,500.00	$3,911.00	$11,461.00
Nuclear Medicine	1350 Clock Hours	$50.00	$4,500.00	$3,127.00	$7,677.00
Perfusion	96 Credit Hours	$100.00	$39,000.00	$10,407.00	$49,507.00

*Please note that fees may vary by program. Students are required to sign an Enrollment Agreement with VUMC at the beginning of orientation. A review copy of the Enrollment Agreement is provided to students prior to their arrival on campus.

Students are required to pay the tuition and fees for each term prior to the beginning of classes for that term. Students are required to pay various fees to VUMC upon application, acceptance, and enrollment, and during the course of study. For example, all accepted students must submit to a criminal background check at the time of acceptance into the school. In some cases, this fee is the responsibility of the student.

In addition, all parking on the Vanderbilt University Medical Center campus must be registered through VUMC Parking & Transportation Services and requires monthly or annual payments. Parking rates will vary according to availability and student preference.

All other expenses related to attending the program are the responsibility of the student. Specific additional expenses vary by program and are outlined in the program section of this catalog. Examples of such expenses include, but are not limited to:

- Health insurance
- CPR certification
- Immunizations
- Uniforms
- Travel to and from clinical assignments
- Housing Expenses
- Meals

Please check the relevant program section of this catalog for more information on fees specific to each program. There are no additional administrative fees related to distance/blended educational activities.

Tuition and fees are payable to the VUMC Center for Programs in Allied Health, unless otherwise indicated. Other expenses not directly related to education, such as health insurance fees, housing, transportation, meals, etc., are considered when calculating the anticipated cost of attendance, but in some cases they may not be payable to VUMC.

Federal Student Financial Aid Funds

Title IV federal financial aid is not available through Vanderbilt University Medical Center at this time. Students will be notified of any plans to change this in the future.

Private Loans

If a student receives a private loan to pay for the educational programs, VUMC is in no way involved with the agreement between the lender and the student. All inquiries related to such loans should be directed to the lender. VUMC will confirm appropriate student enrollment information with a private lender at the lender's request, in order to process private loans.

Student's Right to Cancel / Cancellation Refund Policy

1. A student has the right to cancel his or her program of instruction, without any penalty or obligations, through the third (3rd) business day after signing the enrollment agreement ("Cancellation Period"). Subsequent to this three-day cancellation period, but prior to the start of orientation/classes, the student may request cancellation and will receive a refund of all monies paid, less a non-refundable processing fee of $100. After the end of the cancellation period, the student also has the right to withdraw from school at any time (please see Withdrawal Policy, below).
2. Cancellation is considered to have occurred when the student provides written notice of cancellation at the following address: Vanderbilt University Medical Center, Center for Programs in Allied Health, 1301 Medical Center Drive, B-802 TVC, Nashville, Tennessee 37232-5510.
3. The cancellation may be provided by mail or by hand delivery.
4. The written notice of cancellation, if sent by U.S. Mail, is effective when the notice is postmarked, or as of the date of mailing, if proof of registered delivery is provided. If the written notice of cancellation is hand-delivered, it is effective when it is received by the Center for Programs in Allied Health.
5. If the Enrollment Agreement is cancelled the school will refund the student monies paid as described above, less deductions for any books, equipment or supplies provided to the student by VUMC and not returned in new condition, within five (5) business days after the notice of cancellation takes effect.
6. Students who cancel according to the terms described above will be refunded within three (3) business days after notification of cancellation occurs.

Students cancelling enrollment in VUMC programs are required to return their student IDs immediately upon cancellation.

Student Withdrawal from the Program / Withdrawal Refund Policy

A student may withdraw from the school at any time after the cancellation period (described above) and receive a pro rata refund of tuition (and all fees not yet paid to a third party by VUMC on the student's behalf) if the student has completed sixty (60) percent or less of the scheduled program hours in the current payment period (the percent completed is based on the last day of documented attendance). The refund will be less a processing fee not to exceed $100, and less any deduction for books, equipment, or supplies (not including scrubs or lab coat) provided by the program but not returned in new condition, within five (5) business days of withdrawal. If the student has completed more than 60% of the current payment period, the tuition is considered earned, and the student will receive only a refund of fees that have not been paid to a third party by VUMC on the student's behalf.

For the purpose of determining a refund under this section, a student may be deemed to have withdrawn from a program of instruction when any of the following occurs:

- The student notifies the institution in writing of his or her desire to withdraw. Withdrawal notification must be provided in writing to the following address: Vanderbilt University Medical Center, Center for Programs in Allied Health, 1301 Medical Center Drive, B-802 TVC, Nashville, Tennessee 37232-5510. The withdrawal may be provided by mail or by hand delivery. The written notice of withdrawal, if sent by U.S. Mail, is effective when the notice is postmarked, or as of the date of mailing, if proof of registered delivery is provided. If the written notice of withdrawal is hand-delivered, it is effective when it is received by the Center for Programs in Allied Health.
- The student fails to participate as required in educational activities for at least three (3) consecutive business days.
- The student fails to return from a leave of absence.
- The institution terminates the student's enrollment for failure to maintain satisfactory academic progress; failure to abide by the rules and regulations of the institution; absences in excess of the maximum set forth by the program; and/or failure to meet financial obligations to VUMC.

Definitions:

Last date of attendance is the last day a student had academically related activity, which may include projects, clinical experience, or examinations.

Date of withdrawal determination is the date that an institution determined that a student was no longer in school.

Payment period is considered half of one academic year.

For the purpose of determining the amount of the refund, the date of the student's withdrawal shall be deemed the last date of recorded attendance. The amount owed equals the daily charge for the program (total institutional charges, minus non-refundable fees, divided by the number of days in the program), multiplied by the number of hours scheduled to attend, prior to withdrawal.

If a student is owed a refund, all monies due will be refunded within 45 calendar days after the date of VUMC's determination that the student has withdrawn. Students withdrawing from VUMC programs are required to return their student IDs immediately.

If a student has received federal student financial aid funds, the student is entitled to a refund of monies not paid from federal student financial aid program funds. If any portion of the tuition was paid from the proceeds of a loan or third party, the refund shall be sent to the lender, or other third party if appropriate.

State of Tennessee Refund Policy

After a student starts school, he/she will be obligated for tuition payments as follows:

FOR A STUDENT WHO TERMINATES	VUMC WILL REFUND
within the first 10% of the program	90% of the program cost
within the first 20% of the program	80% of the program cost
within the first 30% of the program	70% of the program cost
within the first 40% of the program	60% of the program cost
within the first 50% of the program	50% of the program cost
within the first 60% of the program	40% of the program cost
after 60% of the program	0% of the program cost

Student Rights and Responsibilities

Student Rights

- Students have the right to an impartial, objective evaluation of their academic performance. Students shall receive in writing, at the beginning of each course, information outlining the method

of evaluating student progress toward, and achievement of, course goals and objectives, including the method by which the final grade is determined.

- Students are treated in a manner conducive to maintaining their worth and dignity. Students are not subject to any acts or threats of intimidation, harassment, mockery, insult, or physical aggression.
- Students are free from the imposition of disciplinary sanctions without proper regard for due process. Formal procedures have been instituted to ensure adequate notice and hearing for all students undergoing the disciplinary process.
- When confronted with injustices, students may seek redress through established grievance procedures. Details about these procedures are available in this VUMC Center for Programs in Allied Health (CPiAH) Catalog.
- Students may take reasonable exception to the data or views offered in any course of study and may form their own judgments, but they are responsible for learning the academic content of any course in which they are enrolled.
- Students will be given full disclosure and explanation of all fees and financial obligation to VUMC.
- Students have the right and responsibility to participate in course and preceptor evaluations and give constructive criticism of the services provided by VUMC.
- Students have the right to a quality education. This right encompasses quality programs; appropriate instructional methodologies and content; preceptors who have sufficient educational qualifications and practical expertise in the areas of instruction; the availability of adequate materials, resources and facilities to promote the application of theory; and an environment that stimulates creativity in learning as well as personal and professional growth.

Student Responsibilities

- Students have the responsibility to conduct themselves in a professional manner at all times and to abide by VUMC and CPiAH policies.
- Students are punctual, attentive and courteous in all classes, clinical rotations, and all other program activities.
- Students do not give or receive help during exams or on assignments (unless students are given permission to collaborate, such as with group assignments). Any student found to engage in these behaviors will be subject to disciplinary action, up to and including dismissal from the program.
- Unless explicitly permitted by an individual program or activity, cell phones and other electronic devices must be turned off during all learning activities.
- Children, family or friends of students are not permitted in VUMC teaching areas unless expressly authorized in advance by VUMC CPiAH personnel.
- Animals are not allowed on VUMC premises, unless as a part of a plan for special needs accommodation developed in conjunction with VUMC CPiAH administration. Students must follow all VUMC health and safety standards and guidelines.
- Each program outlines additional rules of conduct, and students are required to abide by these rules, in addition to those above.
- Students conduct all relationships with the staff and faculty, their peers, and patients with honesty and respect.
- Students comply with instructions from faculty and staff members acting within the scope of their employment.
- Students have the right and responsibility to develop personally through opportunities, such as formal education, work and volunteer experiences, extracurricular activities, and involvement with others.
- Students are encouraged to apply creativity to their own learning processes while striving for academic and clinical excellence and to share their knowledge and learning.

Standards of Professional Conduct

To fulfill its health care mission of education, research and service to patients, VUMC adopts specific standards of ethics and conduct, which shall be followed by each member of the VUMC community.

VUMC has created a standardized Code of Conduct, which provides a uniform set of guidelines that all VUMC faculty and staff must follow. Students are required to sign an acknowledgement of these standards during orientation. The full VUMC Code of Conduct is available at https://ww2.mc.vanderbilt.edu/dcci/23390.

In the VUMC Code of Conduct, the term "staff/faculty" includes VUMC faculty or staff members, as well as other persons who provide services at VUMC, including health care professionals with privileges at VUMC. The same level of conduct is expected of students.

Honor Code of the VUMC Center for Programs in Allied Health / Academic Integrity

Students are admitted into VUMC programs based on their level of maturity and desire to become health care professionals. They are expected to demonstrate the highest level of honesty and ethical behavior. Plagiarism and cheating will not be tolerated. Such acts (and acts such as those listed below) will warrant an investigation, and findings will be presented to the Director of the Center for Programs in Allied Health for review. Appropriate disciplinary action will be determined by the Director of the Center for Programs in Allied Health, in consultation with the Program Director and any course-related faculty. Students may appeal the decision of the Director of the Center for Programs in Allied Health to the VUMC Executive Vice President for Educational Affairs. The decision of the VUMC Executive Vice President for Educational Affairs is final.

Student probation or dismissal from the program may result from concerns such as the following (this list is not exhaustive, but is provided as an example of violations of academic integrity expectations):

- Violation of standards of professionalism and academic integrity
- Cheating on an examination, test or written project
- Plagiarizing (incorporating into one's own work the work of another without identifying the source) in an assigned paper, report or project
- Submitting work prepared by another person as one's own (including use of texts, papers, computer programs, or other class work prepared by commercial or noncommercial agents)
- Submitting work prepared for another course without the specific prior authorization of the instructor of the course for which work is to be completed.
- Falsely reporting personal illness or work hours
- Falsification of results of study and research
- Alcohol and /or other substance abuse
- Patient Confidentiality (HIPAA) Violations – Based on institutional policy, students violating HIPAA regulations relating to patient confidentiality may be placed on probation or dismissed from the program depending on the severity of the violation.
- Other actions that may warrant discipline ranging from probation to immediate dismissal from the program.
- Actions, including but not limited to dishonesty, violation of the law, material risks to Vanderbilt University Medical Center operations or to the safety or well-being of oneself or others.

Student Grievance Policy and Procedures

The purpose of the grievance policy is to provide a prompt and equitable means of resolving student grievances. This procedure is available to any student or applicant for admission, who believes a decision or actions, has adversely affected his or her status, rights, and/or privileges. VUMC strongly urges students who have a grievance to pursue the grievance until a satisfactory resolution is reached. Most grievances can be resolved at their origin and it is suggested that students utilize the following procedure:

- Discuss the problem with the person directly involved. If in fear of safety or need to speak in confidentially, please inform the Program Director or other trusted program faculty member. If the program has program-level grievance procedures, those procedures should be followed before moving to an institutional level grievance (next step).

- If the concern is not resolved to the student's satisfaction by the Program Director (or otherwise at the program level), the student should submit the grievance in writing, and by appointment, meet with the Director of the Center for Programs in Allied Health regarding the unresolved concern.
- If at this time the grievance is not resolved, the grievance will be heard by the VUMC Executive Vice President of Educational Affairs (EVP-EA). The final decision of the EVP-EA will be provided to the Program Director and to the student within five business days. The decision of the EVP-EA is final.

Any person claiming damage or loss as a result of any practice by this institution that may be a violation of the Title 49, Chapter 7, Part 20 or Rule Chapter 1520-01-02, students may file a complaint with the Tennessee Higher Education Commission, Division of Postsecondary State Authorization. The Tennessee Higher Education Commission can be contacted by telephone at (615) 741-3605 or by mail at Tennessee Higher Education Commission, 404 James Robertson Parkway, Suite 1900 Nashville, TN 37243"

Employment While Enrolled at VUMC

Many students work while enrolled at VUMC. Each program may establish its own policies regarding types of employment that pose a conflict with the student role, scheduling requirements, and other issues related to student work. In addition each program may establish its own procedures related to student compliance with program policies (e.g., disclosure requirements). Each program's policies and procedures related to student employment are published in each program's Program Handbook. For additional information on working while enrolled at VUMC, prospective and current students should refer to the Program Handbook for the appropriate program(s).

OTHER ADMINISTRATIVE POLICIES

Anti-Harassment, Nondiscrimination, and Anti- Retaliation

Vanderbilt University Medical Center ("VUMC") is an Equal Employment Opportunity and Affirmative Action Employer. VUMC's Equal Opportunity and Affirmative Action Policy is reflected in the following statements (full policy is available online, at https://hr.mc.vanderbilt.edu/policies/anti-harassment.php):

A. In compliance with federal law, including the provisions of Title VI of the Civil Rights Act of 1964, Title VII of the Civil Rights Act of 1964, Sections 503 and 504 of the Rehabilitation Act of 1973, the Age Discrimination in Employment Act (ADEA) of 1967, the Americans with Disabilities Act (ADA) of 1990, the ADA Amendments Act of 2008, Executive Order 11246, the Uniformed Services Employment and Reemployment Rights Act, as amended, and the Genetic Information Nondiscrimination Act of 2008i, VUMC does not discriminate against individuals on the basis of their race, sex, religion, color, national or ethnic origin, age, disability, military service, veteran status or genetic information in its employment. In addition, the University does not discriminate against individuals on the basis of their sexual orientation, gender identity, or gender expression consistent with the VUMC Antiharassment, Non-Discrimination and Non-Retaliation policy.
B. In compliance with federal law, VUMC does not retaliate against individuals for 1) filing or encouraging one to file a complaint of unlawful discrimination, 2) participating in an investigation of unlawful discrimination, or 3) opposing unlawful discrimination. In addition, VUMC does not retaliate against individuals for filing or encouraging one to file a complaint of discrimination, participating in an investigation of discrimination, or opposing discrimination based on grounds not necessarily protected by federal or state law, but protected by the VUMC policy HR - Anti-Harassment, Non-Discrimination and Anti-Retaliation, such as sexual orientation. "Retaliation" includes any adverse employment action or act of revenge against an individual for filing or encouraging one to file a complaint of discrimination, participating in an investigation of discrimination, or opposing discrimination.

Any member of the VUMC community who experiences harassment or discrimination on the basis of his or her race, sex, religion, color, national or ethnic origin, age, disability, veteran status, genetic information, sexual orientation, gender identity, or gender expression should immediately seek assistance from their supervisor or manager or through VUMC Employee & Labor Relations. In addition, any member of the VUMC community who experiences retaliation after filing or encouraging one to file a complaint of discrimination, participating in an investigation of discrimination, or opposing discrimination should immediately seek assistance through their supervisor or manager. If an issue is raised to your supervisor or manager, they will reach out to VUMC Employee & Labor Relations to consult and receive advice. If the issue warrants further investigation, Employee & Labor Relations will then commence the following procedure:

a. Employee & Labor Relations will document the details of the complaint and conduct a prompt and thorough investigation of the allegations.
b. Employee & Labor Relations will explain the process to all parties involved and notify them of the need for confidentiality to be maintained throughout. Where appropriate, Employee & Labor Relations will facilitate remedial action to protect the parties involved in the process.
c. All pertinent documents will be reviewed and appropriate witnesses will be interviewed.
d. Following an objective evaluation of the information gathered, Employee & Labor Relations will notify the parties of the outcome of the investigation. Where appropriate, Employee & Labor Relations will facilitate a resolution.

Services for Students with Disabilities

VUMC is committed to the provisions of the Rehabilitation Act of 1973 and Americans with Disabilities Act as it strives to be an inclusive community for students with disabilities. Students seeking accommodation for any type of disability are encouraged to contact their Program Director or the Director of the Center for Programs in Allied Health to request assistance. Specific concerns pertaining to services for people with disabilities or any disability issue should be directed to the Director of the Center for Programs in Allied Health.

Student Records

VUMC allied health student records are maintained for a minimum of five years from the end of the VUMC fiscal year during which a student was last enrolled, with transcripts being maintained permanently. The student has the right to inspect academic and financial records, by appointment.

Central student files are retained in the administrative office of the Center for Programs in Allied Health, secured under lock. Program Directors also maintain some student records, also secured under lock. A student may review his/her own student record through appointment with the administrative office of the Center for Programs in Allied Health. Student files may not be removed from the administrative office of the Center for Programs in Allied Health.

Transcripts/Verification Statements

Permanent transcripts of student performance are maintained by the Center for Programs in Allied Health. The Dietetic Internship provides a verification statement that serves as the equivalent of the transcript for all ACEND-accredited internship programs, including the VUMC Dietetic Internship. Students are provided with official transcripts (or verification statement, in the case of the Dietetic Internship) at graduation for certification purpose plus one additional copy for personal use. Additional copies may be requested in writing, directed to the Office of the Center for Programs in Allied Health. Transcript requests should be directed to the attention of Enrollment Services and Financial Aid, Office of Center for Programs in Allied Health, Vanderbilt University Medical Center, B-802 TVC, 1301 Medical Center Drive, Nashville, TN 37232-5510. You may also contact the office at (615) 322-5259 or fax (615) 343-8810. The transcript fee is $5.00 and checks are to be made payable to VUMC.

FERPA Rights (Family Educational Rights and Privacy Act)

VUMC respects the rights and privacy of its students and acknowledges the responsibility to maintain confidentiality of personally identifiable information. The Family Educational Rights and Privacy Act (FERPA) is a federal law that affords students certain rights with respect to their educational records. FERPA defines the rights of students to review their records, request a change to their records, and provide written consent to disclose personally identifiable information to a third party. The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. The following link provides further information about FERPA: https://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html

The Family Educational Rights and Privacy Act (FERPA), also referred to as "The Buckley Amendment", afford eligible students certain rights with respect to their education records. (An "eligible student" under FERPA is a student who is 18 years of age or older or who attends a postsecondary institution.) These rights include:

1. The right to inspect and review the student's education records within 45 days after the day the Vanderbilt University Medical Center, Center for Programs in Allied Health receives a request for access. A student should submit to the VUMC CPiAH office a written request that identifies the record(s) the student wishes to inspect. The school official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the school official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student's education records that the student believes is inaccurate, misleading, or otherwise in violation of the student's privacy rights under FERPA. A student who wishes to ask the school to amend a record should write the school official responsible for the record, clearly identify the part of the record the student wants changed, and specify why it should be changed. If the school decides not to amend the record as requested, the school will notify the student in writing of the decision and the student's right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
3. The right to provide written consent before the VUMC discloses personally identifiable information (PII) from the student's education records, except to the extent that FERPA authorizes disclosure without consent.

The Family Educational Rights and Privacy Act provides the VUMC the ability to designate certain student information as "directory information." Directory information may be made available to any person without the student's consent unless the student gives notice as provided for below. VUMC CPiAH has designated the following as directory information: the student's name, addresses, telephone number, e-mail address, date and place of birth, field of study, school, classification, dates of attendance, degrees and awards received, the most recent previous educational agency or institution attended by the student, and other similar information. Any new entering or currently enrolled student who does not wish disclosure of directory information should notify their Program Director in writing. No element of directory information as defined above is released for students who request nondisclosure except in situations required by law. The request to withhold directory information will remain in effect as long as the student continues to be enrolled, or until the student files written request with their Program Director to discontinue the withholding. To continue nondisclosure of directory information after a student ceases to be enrolled, a written request for continuance must be filed with their Program Director during the student's last term of attendance.

If a student believes VUMC has failed to comply with The Family Educational Rights and Privacy Act, he or she may file a formal written complaint with the Center for Programs in Allied Health, Vanderbilt University Medical Center, B-802 TVC, 1301 22nd Avenue, Nashville, TN 37232-5510. The complaint will be investigated by the Director of the Center for Programs in Allied Health, and the requesting student will be notified of the outcome of the investigation. Students may also file a written complaint with the Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue SW, Washington, DC 20202-5920.

FERPA permits the disclosure of PII from students' education records, without consent of the student, if the disclosure meets certain conditions found in §99.31 of the FERPA regulations. Except for disclosures to school officials, disclosures related to some judicial orders or lawfully issued subpoenas, disclosures of directory information, and disclosures to the student, §99.32 of FERPA regulations requires the institution to record the disclosure. Eligible students have a right to inspect and review the record of disclosures. A postsecondary institution may disclose PII from the education records without obtaining prior written consent of the student:

- To other school officials, including teachers, within the VUMC, whom the school has determined to have legitimate educational interests. This includes contractors, consultants, volunteers, or other parties to whom the school has outsourced institutional services or functions, provided that the conditions listed in §99.31(a)(1)(i)(B)(*1*) - (a)(1)(i)(B)(*2*) are met. (§99.31(a)(1))
- To officials of another school where the student seeks or intends to enroll, or where the student is already enrolled if the disclosure is for purposes related to the student's enrollment or transfer, subject to the requirements of §99.34. (§99.31(a)(2))
- To authorized representatives of the U. S. Comptroller General, the U. S. Attorney General, the U.S. Secretary of Education, or State and local educational authorities, such as a State postsecondary authority that is responsible for supervising the VUMC's State-supported education programs. Disclosures under this provision may be made, subject to the requirements

of §99.35, in connection with an audit or evaluation of Federal- or State-supported education programs, or for the enforcement of or compliance with Federal legal requirements that relate to those programs. These entities may make further disclosures of PII to outside entities that are designated by them as their authorized representatives to conduct any audit, evaluation, or enforcement or compliance activity on their behalf. (§§99.31(a)(3) and 99.35)

- In connection with financial aid for which the student has applied or which the student has received, if the information is necessary to determine eligibility for the aid, determine the amount of the aid, determine the conditions of the aid, or enforce the terms and conditions of the aid. (§99.31(a)(4))
- To organizations conducting studies for, or on behalf of, the school, in order to: (a) develop, validate, or administer predictive tests; (b) administer student aid programs; or (c) improve instruction. (§99.31(a)(6))
- To accrediting organizations to carry out their accrediting functions. ((§99.31(a)(7))
- To parents of an eligible student if the student is a dependent for IRS tax purposes. (§99.31(a)(8))
- To comply with a judicial order or lawfully issued subpoena. (§99.31(a)(9))
- To appropriate officials in connection with a health or safety emergency, subject to §99.36. (§99.31(a)(10))
- Information the school has designated as "directory information" under §99.37. (§99.31(a)(11))
- To a victim of an alleged perpetrator of a crime of violence or a non-forcible sex offense, subject to the requirements of §99.39. The disclosure may only include the final results of the disciplinary proceeding with respect to that alleged crime or offense, regardless of the finding. (§99.31(a)(13))
- To the general public, the final results of a disciplinary proceeding, subject to the requirements of §99.39, if the school determines the student is an alleged perpetrator of a crime of violence or non-forcible sex offense and the student has committed a violation of the school's rules or policies with respect to the allegation made against him or her. (§99.31(a)(14))
- To parents of a student regarding the student's violation of any Federal, State, or local law, or of any rule or policy of the school, governing the use or possession of alcohol or a controlled substance if the school determines the student committed a disciplinary violation and the student is under the age of 21. (§99.31(a)(15))

Copyright Infringement Policy

VUMC expects all VUMC faculty and staff members, as well as all students, to comply with Federal law for the use of copyrighted material when using on VUMC's computers, networks and copiers. Unauthorized use of copyrighted material is illegal, regardless of whether that use is by a faculty or staff member or a student. All faculty, staff, and students are expected to be aware of and follow laws around use of copyrighted materials. Any member of the campus community practicing unauthorized use or distribution of copyrighted material is subject to sanctions by VUMC Center for Programs in Allied Health, up to dismissal or termination. Violators are also subject to Federal criminal penalties for copyright law violations.

The following web link provides further information on copyright law.
https://www.copyright.gov/help/faq/index.html

The following web link provides information on legal sources of online content, and is made available to VUMC students in this catalog as a requirement of the Higher Education Opportunity Act:
https://www.educause.edu/focus-areas-and-initiatives/policy-and-security/educause-policy/issues-and-positions/intellectual-property/legal-sources-onli

Official Program Communications

Vanderbilt University Medical Center delivers required communications with students via each student's official VUMC email account. Official electronic notifications including those required by VUMC policy,

will be sent to students' VUMC email addresses. Students are required to be familiar with the contents of official VUMC notifications, and to respond to instructions and other official correspondence requiring a response. VUMC makes every effort to avoid inundating students with nonessential email (often called "spam"), and maintains separate lists from which students may unsubscribe for announcements of general interest.

Change of Contact Information

Students are responsible for notifying the Office of the Director of the Center for Programs in Allied Health immediately of any change of mailing address, email address, telephone number or emergency contact.

Course Syllabus Policy

Each didactic and clinical course director is required to provide a written syllabus to each student at the outset of the course or clinical experience. In this syllabus the student will find all pertinent information for course objectives and requirements, as well as grading information. The instructor will provide a review and explanation of the syllabus contents at the outset of the course or rotation. The student is responsible for understanding and following the guidelines in the syllabus. If a student feels that the instructor has violated content provided in the syllabus, he or she may file a complaint under the Grievance Policy outlined in this catalog.

Uniforms/Dress Code

Students are required to dress in an appropriate professional manner, in keeping with VUMC institutional dress code (Appendix D of this catalog). Uniforms or scrubs may be required for some programs. Please refer to information from programs regarding specific dress requirements based on particular settings of learning.

* Centers for Programs in Allied Health (CPiAH) requires all students to wear scrubs/program's dress code attire. CPiAH will order scrubs on the student's behalf. Please note that these scrub costs are included within Tuition and Fees.

News/Media Inquiries

Contact with the news media regarding Vanderbilt University Medical Center must be cleared through the VUMC Office of Public Affairs. If you should receive a request from newspaper, television, social media or radio reporters, contact the Office of the Center for Programs in Allied Health, who will clear this through the Office of Public Affairs. This assures a more accurate flow of information. No contact with the news media related to VUMC or affiliated facilities should take place without the express written consent of the Director of the Center for Programs in Allied Health.

Personal Possessions

Vanderbilt University Medical Center and affiliated institutions are not responsible for loss of, or for damage to, any personal possessions brought to the Medical Center, University campus or affiliated facility. It is advisable to bring only the amount of money you will need for the day you are on duty. Keep money with you or in a secure (preferably locked) location. Valuable coats, watches, jewelry or other valuable items should be left at home for safekeeping. Check with designated affiliate staff members regarding personal belongings storage space at external affiliation locations.

Smoking/Tobacco Policy

As a premier research enterprise and health care provider, VUMC recognizes the effects and costs of smoking, tobacco, and nicotine use on our society. VUMC is committed to promoting a healthy environment for its staff and visitors without the hazards associated with these products. This policy establishes VUMC as a smoke free institution and includes but is not limited to cigarettes, tobacco, and devices such as e-cigarettes, pipes, vaporizers. The use of these items is prohibited in all property owned by VUMC including vehicles and property leased by VUMC, campus grounds, parking lots, garages, plazas, courtyards, except in locations that have been designated for smoking and related devices.

Smoking, electronic cigarettes, and use of tobacco are prohibited in VUMC facilities and on the grounds of the Medical Center campus bounded by 21st Avenue, Blakemore Avenue, 24th Avenue, Garland

Avenue, Stephenson Center Lane extending beyond and behind Medical Center North,. VUMC has designated smoking areas on the boundaries of the Medical Center campus. (Refer to the attached map for the locations.

Additionally, smoking, electronic cigarettes, and use of tobacco are banned in all property owned by the Medical Center including vehicles and on property leased by the Medical Center. Smoking restriction is within two hundred (200) feet of all entrances to the Vanderbilt University Medical Center Facilities. A violation is a misdemeanor, carrying a $50 fine and Vanderbilt University Police Department (VUPD) enforces the ordinance as appropriate. (See Ordinance No. BL 2012- 115.) For property leased by the Medical Center, efforts are made with landlords to institute no smoking/tobacco policies and to direct smokers/tobacco users no less than 50 feet from any entrance used by patients or staff. No medical exceptions are allowed for outpatients or inpatients. The sale of smoking/tobacco material is prohibited in all VUMC facilities.

Alcohol/Drug Use and Under-the-Influence Policy

In compliance with the 1990 Federal Drug-Free Schools and Campuses regulations, Vanderbilt University Medical Center enforces the following policy (full policy appears in Appendix E of this catalog):

Unauthorized use or possession of alcohol, controlled substances or the use or possession of illegal drugs is prohibited on Vanderbilt University Medical Center (VUMC) premises or during VUMC-sponsored activities. In addition, this policy prohibits the unlawful manufacture, dispensing, or distribution of illicit drugs and alcohol by staff on VUMC premises, while conducting VUMC business off the premises, or as part of any VUMC-sponsored activities, including any activity with a federal grant. (VUMC Policy Number OP 30-10.04, April 2013)

Students in VUMC programs may be asked to participate in a drug screen. The drug policy is intended to comply with all state laws governing drug and alcohol screening and is designed to protect the students' right to privacy. The following behaviors are unprofessional and will subject the student to severe disciplinary action, up to and including dismissal from the program.

- Possession or use of alcohol or illegal drugs while on campus or clinical affiliate premises.
- Being under the influence of alcohol or illegal drugs while on campus or clinical affiliate premises, specifically while performing duties in patient care areas, surgical operating rooms or attending program related functions.
- Conviction of a crime related to possession, use or distribution of illegal drugs while enrolled in the program.

Services for persons needing assistance around substance use, dependence or abuse are encouraged to reach out for assistance. VUMC Center for Programs in Allied Health offers its students access the VUMC an Employee Assistance Program, known as Work/Life Connections-Employee Assistance Program (EAP):
Location: B018 Medical Arts Building (MAB)
Hours: 8:00 a.m.-5:00 p.m., Monday through Friday
Telephone: 615-936-1327

The Employee Assistance Program (EAP) provides confidential professional consultation, assessment, counseling and referral for students who have psychological, behavioral and/or social problems adversely affecting job performance and/or emotional health and well-being. The EAP focuses on improving the health and well-being of its clients by offering prevention services, early identification, intervention and remediation of behavioral health problems and facilitates access to necessary referral services. The EAP offers assistance for alcohol/substance abuse problems; emotional/behavioral problems; family/marital problems; financial and legal concerns; and stress-related problems.

Weapons Policy

Vanderbilt University Medical Center prohibits student possession of firearms or other dangerous weapons while on Vanderbilt University Medical Center Campus or at clinical affiliations. The full policy is available in Appendix F of this catalog. Any student found to be in violation of this policy will be subject to disciplinary action. If a student receives information or observes another individual, staff member or patient/family, possessing a firearm or dangerous weapon on one of the previously mentioned campuses he/she should report this immediately to a Clinical Instructor or another staff member in authority.

Computer Use Policy

Students are required to adhere to all VUMC policies relating to the use of computer systems, both while on campus and remotely. Students are required to adhere to the following Medical Center policies provided to all students through this catalog in the following Appendices to this catalog:

- VUMC Acceptable Use Policy (computer policy) (Appendix A)
- VUMC Social Media Policy (Appendix B)
- VUMC Authentication to Electronic Systems and Applications Policy (Appendix C)

Students are required to refrain from sharing information about their clinical experiences on social media. Patient information is confidential and should never be shared. Any breach in forms of confidentiality will result in disciplinary action, up to and including dismissal from the program.

VUMC Emergency Preparedness

Students are introduced to VUMC emergency response policies and plans at orientation, and they are required to be familiar with and follow policies at all times. The VUMC Emergency Preparedness Guide may be found in the Program Director's office and throughout the hospital. While assigned at the Medical Center, students are expected to respond appropriately to any emergency in a timely and appropriate manner. The Medical Center Safety Guidelines may be accessed at www.safety.vanderbilt.edu under the hospital link. Emergency preparedness policies and procedures are discussed during student orientation.

The following is a brief description of emergency codes that student may hear announced at the medical center:

STAT - medical emergency defined by location.
RED alert- Fire condition

- If the fire is in the immediate area – respond with R.A.C.E/P.A.S.S.
- If the fire is not in the immediate area – close doors and hallways and keep patients and visitors within the area.

Code Black – bomb threat
Code Silver – active shooter
Missing Person

- **Code Pink** – Missing infant (<1 years old) identified by location and description
- **Code Purple** – Missing child (1-12 years old) identified by location and description.
- **Code Walker** – Missing teen/adult identified by location and description.

Yellow Alert – Potential emergency condition; prepare to activate emergency response.
Orange Alert – Emergency condition present; activate emergency response.
Yellow and Orange Alerts may be announced for the following emergency conditions:

- Mass Casualty
- Phone system outage
- Steam outage
- Electricity outage
- Medical Air
- Tornado
- Vacuum system outage

- Water outage
- Beeper system outage

Once the emergency has passed, announcements will be made to cancel the emergency response.

VUMC Exposure and Infection Control Policy

Students enrolled at VUMC will be at risk for exposure to potentially hazardous material, chemicals and blood-borne pathogens or other work-related injury. Occupational exposure occurs when there is a puncture, scratch, laceration, splash, prolonged skin contact or contact with broken skin involving blood, body fluids, or other potentially infectious materials. Among the hazards that a student may be exposed to are:

- Housekeeping and/or cleaning agents
- Flammable and/or explosive chemicals and gases
- Electrical or mechanical equipment
- Fumes
- Radiation
- Blood-borne pathogens

Students will be instructed in the use of infection control and standard precautions, as well as safety in the workplace. If exposure or injury does occur during scheduled clinical education time, the student should follow the documented procedure for treatment.

1. Report the exposure/injury to the supervising staff IMMEDIATELY.
2. Take appropriate first aid measures (clean wound with soap/water; flush mucous membranes with water/saline for 15 minutes). If life-threatening, see Emergency Department (ED) physician immediately. If non-life threatening, seek treatment at the Occupational Health Clinic in the Medical Arts Building. If after-hours, seek treatment in the ED.
3. Get the name, medical record number and location of the exposure source, if the source is a patient.
4. Notify the Program Director.
5. Complete the Tennessee First Report of Injury and forward to Risk Management within 48 hours.

It is the student's responsibility to report any exposure/injury to their instructor and Program Director. Any identified incident found not to be reported may result in disciplinary action, up to or including dismissal from the program.

Infection Control for Patients

During their normal program activities students will encounter patients who are in an immunosuppressed condition, putting these patients at a particularly high risk of contracting infectious diseases, including a cold, influenza and other communicable diseases. To some patients such an infection could be life-threatening. Because of this, if a student suspects he or she has acquired (or if he or she has been diagnosed with) an infectious condition, the student is prohibited from the clinical setting. This is absolutely essential in order to protect patients from infection by ill students. Any infectious condition should be reported by the student to the Program Director as soon as possible. Any student found to be withholding this type of information will face disciplinary action for unethical behavior. A clinical instructor who suspects that a student may be infectious may ask the student to leave the clinical setting and will notify the Program Director. After absence due to infectious disease, the student must be evaluated by a physician, and written permission from his/her physician must be obtained before returning to the clinical setting.

Mandatory Student Training Requirements/Compliance

Students participate in VUMC training modules related to patient safety, hygiene practices, professional conduct, etc., at the beginning of their enrollment and at certain intervals during enrollment. The specific modules required by each program vary. Program sections of this catalog and/or program/student

handbooks outline specific requirements for each program. All students are required to take at least the following modules:

A. Safety Training – Infection control, fire safety, and OHSA requirements
B. Standards of Conduct (AIDET)
C. HIPAA Regulations (Health Insurance Portability and Accountability Act)

Maintenance of Program-Issued Equipment

All equipment – e.g., beepers, parking cards, ID badges, etc. – remains the property of VUMC, and the student to whom such items are issued is responsible for their care and use. Failure to return school- or program-issued items as required will result in the student being liable for the cost of such items. Such fees will be assessed and paid prior to the student being allowed to enroll for the next term or, for students in their final term, prior to graduation.

Limits of Confidentiality

Imminent Harm to Self or Others. Consistent with Federal Law and Vanderbilt University Medical Center policy, VUMC may release student information normally considered confidential to appropriate individuals (e.g., health care personnel, police, etc.) if such information is necessary to protect the health or safety of the student or other individuals.

Program-Specific Policies, Rules and Regulations

In addition to the student policies listed in this catalog, each VUMC program has student policies and regulations that are detailed in program-specific documentation, including the program sections of this catalog, each program's student/program handbook, course syllabi, etc. All students are also required to abide by all rules and regulations of VUMC and of the program in which they are enrolled. Students will receive access to their program's student/program handbook at orientation and may request a copy at any time.

Catalog Changes

Information about Vanderbilt University Medical Center is published in this catalog, which contains a description of policies, procedures, and other information about the Center. Vanderbilt University Medical Center reserves the right to change any provision of the catalog at any time. Notice of changes will be communicated in a revised catalog, an addendum or supplement to the catalog, or other written format with an effective date. Students are expected to read and be familiar with the information contained in this catalog; in any revisions, supplements and addenda to the catalog; and with all institutional and program policies. By enrolling in Vanderbilt University Medical Center, the student agrees to abide by the terms stated in the catalog and all VUMC and program policies.

Community Resources

Information about national community resources is listed below: Organization /Website / Phone Number

- Alcohol Abuse and Crisis Intervention – www.aa.org – 1 (800) 234-0246
- Al-Anon – www.al-anon.org – 1 (888) 425-2666
- Drug and Alcohol Helpline – http://www.alcoholdrughelp.org.nz – 1 (800) 787 797 or text 8681
- Family and Children's Services – www.acf.hhs.gov – 1 (800) 422-44535
- National Domestic Violence Hotline – www.thehotline.org – 1 (800) 799-7233
- Rape Crisis Center – www.therapecrisiscenter.org – 1 (888) 366-1640
- Suicide Hotline – www.suicidepreventionlifeline.org – 1 (800) 273-8255
- United Way – www.unitedway.org – Phone: 211

Program Directors and the Director of the Center for Programs in Allied Health are available to work individually and confidentially with students to provide additional information and resources as needed.

DIAGNOSTIC MEDICAL SONOGRAPHY (DMS)

Program Description

The VUMC Diagnostic Medical Sonography is an 18-month-long certificate program in general sonography. The curriculum offers an integrated didactic and clinical education plan which provides students with the resources necessary to begin a career as a credentialed entry-level sonographer. The small class size provides an excellent learning environment with a high faculty to student ratio. Students are required to participate in all class and clinical sessions. Sonography is an operator-dependent imaging specialty and the program provides ample hands-on opportunities in which students will prepare for a career in the field. The program was established in the VUMC Department of Radiology in 2002 after operating for a brief period of time in the 1980s.

Certification/Credentialing

Students receive a certificate (see program accreditation below), which qualifies the DMS Program graduates to apply for and take the following certification exams for the American Registry of Diagnostic Medical Sonography (ARDMS):

- Sonographic Principles and Instrumentation
- Abdomen Sonography
- Obstetrics & Gynecology Sonography

Length of Program

The program consists of 2,295 clock/contact hours in 72 weeks, typically beginning in mid- to late-September and ending 18 months later in mid- to late-March.

Program Delivery

The DMS Program is a blended curriculum, in that some courses, assessments, and assignments are delivered using one or all components of an online Learning Management System (LMS).

Mission, Credo, and Goals

Mission

The VUMC Diagnostic Medical Sonography program is dedicated to providing quality education for its students in order to promote excellence in the art and science of sonography. Guided by the Mission of Vanderbilt University Medical Center, the DMS Program strives to provide academic and clinical experiences that produce competent and compassionate sonographers with a commitment to the performance of quality imaging and the pursuit of lifelong learning.

Philosophy

It is the philosophy of the Program that all patients have the right to receive competent and compassionate care to promote overall health and wellness. Diagnostic medical sonographers must possess the skills and knowledge necessary to think critically during the delivery of such care while performing sonographic procedures. The Program is committed to providing the healthcare system with sonographers who are competent and compassionate critical thinkers with a goal of continuously learning throughout their career.

Goal & Objectives

The sonography profession requires the ability to provide diagnostic sonographic imaging utilizing critical thinking skills to make judgments in the process. Sonographers are professionals who must possess high level skills in diagnostic sonographic techniques under the guidance of a licensed physician. A sonographer is responsible for providing excellent patient care and gathering adequate data necessary for diagnoses to be determined.

The VUMC Diagnostic Medical Sonography program's goal is to prepare competent entry-level general sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains. Graduates of the VUMC Diagnostic Medical Sonography program will be able to perform, at minimum, the following objectives:

- Cognitive
  - Obtain, review and integrate pertinent patient data to facilitate optimum diagnostic results.
  - Demonstrate critical thinking skills during the performance of sonographic procedures to provide optimum diagnostic services.

- Psychomotor
  - Perform sonographic procedures appropriately and accurately recording all anatomic and physiologic information for interpretation by a physician.
  - Document and present complete and accurate sonographic findings to the interpreting physician in order to facilitate patient diagnosis.
  - Maintain optimal function of the sonographic equipment.
  - Assist physician during invasive ultrasound guided procedures.

- Affective
  - Demonstrate effective communication skills with patients and all members of the healthcare team. Provide compassionate patient care and education to promote overall well-being.
  - Act in a professional manner within recognized ethical and legal standards. Demonstrate a commitment to lifelong learning.

Upon graduation, students will have demonstrated and completed all clinical and academic competencies required for eligibility to take the American Registry of Diagnostic Medical Sonography (ARDMS) certification exams in the area(s) of study. Complete information about the program curriculum may be found on its website, at *https://ww2.mc.vanderbilt.edu/dms/*.

Programmatic Accreditation/Approvals

The Diagnostic Medical Sonography program is programmatically accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). This accreditation is granted only after recommendation by the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS) based on a programmatic review and site visit. Initial accreditation for a general sonography concentration was achieved in 2004. Continuing accreditation for the program was achieved in 2007 and 2013.

Recognition by CAAHEP qualifies the Program's graduates for eligibility to apply for and take the following certification exams for the American Registry of Diagnostic Medical Sonography (ARDMS):

- Sonographic Principles and Instrumentation
- Abdomen Sonography
- Obstetrics & Gynecology Sonography

CAAHEP:
Commission on Accreditation of Allied Health Education Programs 25400 Highway 19 North, Suite 158
Clearwater, FL 33763
727-210-2350 F: 727-210-2354
www.caahep.org

JRC-DMS:
Joint Review Committee on Education in Diagnostic Medical Sonography 6021 University Boulevard, Suite 500
Ellicott City, MD 21043
443-973-3251 F: 866-738-3444
www.jrcdms.org

Program Staff and Faculty

Arthur C. Fleischer, MD, Medical Director (Full-time)
Residency and Fellowship, Diagnostic Radiology, 1980, Vanderbilt University School of Medicine, Nashville, TN; MD, 1976, Medical College of Georgia, Augusta, GA; BS, Biology, Emory University, Augusta, GA

Jill D. Webb, BS, RT(R), RDMS, RVT, Program Director (Full-time)
Bachelor of Science, Health Arts, 2001, University of St. Francis, Joliet, IL; Certificate, Radiologic Technology, 1988, Floyd Medical Center School of Radiologic Technology, Rome, GA

Mary Ann Keenan, DMP, Instructor (Full-time)
Registered State Inspector,TN; Qualified Radiation Expert, KY/AL; Diagnostic Medical Physics, American Board of Radiology; Doctorate, Medical Physics, 2011, Vanderbilt University, Nashville, TN; MS, Medical Physics, 2007, Vanderbilt University, Nashville, TN; BS, Chemistry, 2003, Athens State University

DMS Program Advisory Committee
The DMS Program utilizes an Advisory Committee of educators and professionals who represent all of the communities of interest related to program outcomes. Each cohort of students selects a classmate as the Student Representative to the DMS Program Advisory Committee. The Committee is charged with the responsibility of meeting at least annually, in order to assist the program and sponsor personnel in formulating and periodically revising appropriate goals and learning domains, monitoring needs and expectations, and ensuring program responsiveness to change.

DMS Program Advisory Committee Members

Member Name	Title
Jill Trotter	Program Director
Arthur Fleischer, MD	Medical Director
Rochelle Andreotti, MD	Professor, Radiology- Guest Speaker
Glynis Sacks, MD	Professor, Clinical Radiology- Guest Speaker
Karen Tisdale	Clinical Site Supervisor, Clinical Instructor
Melissa Tomlin	Clinical Site Manager
Phillip Williams	Clinical Site Lead Sonographer, Clinical Instructor
Jason Hooper	Clinical Site Lead Sonographer, Clinical Instructor
Rachel Waters	Clinical Instructor
Stephanie Smith	Clinical Instructor
Ebony McHaskell	Assistant Director, VUMC Programs in Allied Health
Kristen Smith	Assoc. Prog. Manager, VUMC Progs. in Allied Health
Donna Rosenstiel	Assistant Dean, Office of Health Sciences Education
Petrice Sprouse	Director, VUMC Programs in Allied Health

Britny Andrew	Student
Michelle Lynch	Public Member
Kelly Barrett	Public Member- former student and clinical instructor
D'Arcy Craig	Public Member- former student
Tracy Wrye	Public Member
Kevin Gregory	Public Member
Tamra Roberts	Public Member-Distance Education

Program Academic Calendar – 2017-2019 Program Calendar

9/25/2017	Start Date
11/20 - 11/24/2017	Thanksgiving Break
12/22/2017 - 01/05/2017	Christmas Break
05/28/2017	Memorial Day-No class or clinical
06/25- 6/29/2017	Summer Break
07/04/2018	Independence Day – No class or clinical
09/03/2018	Labor Day – No class or clinical
11/19-11/23/2018	Thanksgiving Break
12/24/2018 – 01/04/2019	Christmas Break
03/29/2019	Final Day of Classes

Admission

Candidates for admission must satisfy each of the following criteria by submission of official transcripts:

1. All applicants must possess a high school diploma, a high school diploma equivalency, a current Tennessee license in the field for which the training is intended, or postsecondary credit in a degree program.
2. Post-secondary education which, at minimum, meets one (1) of the following, with a cumulative GPA of no less than 2.75*:
   - A Bachelor's or an Associate's Degree (Applied Associate's is also acceptable) from an accredited allied health program in direct patient care and possess the recognized credential in the healthcare specialty*
   - Bachelor Degree from an accredited college or university
   - Demonstrate eligibility for the Bachelor's Degree upon completion of the VUMC Diagnostic Medical Sonography Program curriculum from one of the following Affiliate Institutions:
     - Austin Peay State University
     - Middle Tennessee State University

   (This option requires written recommendation from the affiliate institution's faculty advisor.)
3. Six (6) pre-requisite courses* at an accredited post-secondary institution with a grade of 'C' or better:
   - Algebra or College Math equivalent
   - General Physics (Radiographic Physics will be accepted)
   - Minimum of 2 semesters of Biological Sciences, including one semester of Human Anatomy and Physiology
   - Medical Terminology
   - English Composition or Speech (must be completed at a college or university within the United States)

*Individuals may submit an application with incomplete pre-requisite coursework by indicating a plan of action to satisfy this requirement prior to matriculation (please refer to Application for Admission on the DMS Program website).

Physical Activity Standards

Diagnostic medical sonographers must be able to perform a variety of physical movements in order to care for and manipulate patients and heavy equipment. Any student admitted to the Program must acknowledge his/her ability to carry out the following technical standards with or without reasonable accommodations:

- Push, pull or lift 50 pounds routinely and more than 50 pounds occasionally
- Bend, stoop, kneel, squat or sit and reach routinely
- Adequately control imaging transducer and manipulate equipment weighing up to 500 pounds on wheels
- Adequately visualize and perceive image data on computer and video monitors to acquire and interpret sonographic image data with color distinction
- Sufficiently distinguish fine audible differences including Doppler signals, patient and co-worker communication and patient conditions such as respiration or movements
- Fluently demonstrate English language skills to provide optimum communication with patient and healthcare team members
- Follow verbal and written instructions to provide optimum care for patients

Intellectual and Emotional Standards
Diagnostic medical sonographers must also possess intellectual and emotional qualities that permit adequate care for patients and response to unexpected or emergent situations. Any student admitted into the program must acknowledge his/her ability to demonstrate the following qualities with or without reasonable accommodations:

- Problem-solve and interpret data in both routine and emergent situations
- Empathy
- Emotional stability and maturity
- Courtesy and compassion to patients and their families, as well as co-workers
- Adaptability and flexibility to clinical or didactic schedule changes
- Follow protocols and organize sonographic examination data accurately to facilitate patient diagnosis
- Maintain patient confidentiality

Application Procedures
Applications are accepted by the Allied Health Programs Office with postmarks between January 1 and March 31 for admission each academic year. Application documentation includes:

- Submission of application and non-refundable deposit
- Submission of official transcripts or translation of international transcripts into US Equivalence (not just the English language) for all post-secondary coursework
- Submission of a current resume
- Three (3) references (web-based survey used)
- Personal essay regarding: 1) the current state of sonography, 2) the future of sonography and 3) the applicant's contribution to the field of sonography

Applicants with pre-requisite course work from an institution outside of the United States MUST have an official, detailed translation of their coursework into the US equivalency sent to the program from the World Education Services (WES). International applicants who do not provide official documentation of acceptable US course and degree equivalency will not be considered during the application process.

The application AND all supporting documentation must be delivered to the Allied Health Programs Office in one mailing envelope.

Any application received with a postmark after March 31 is processed only on an as-available basis. Interviews are scheduled with qualified applicants each year after the deadline listed.

Interview
Qualified applicants are granted a phone interview with the Program Director (under the direction of the Admissions Committee). Top candidates are offered an on-site interview with Faculty and Staff from the Admissions Committee.

Student Selection and Acceptance
The following criteria are considered in the evaluation of all applicants:

- Overall GPA
- Completed pre-requisite coursework GPA
- Reference scores
- Interviews
- Professional Potential (comprehensive rating of the applicant's overall preparedness)

After all interviews are conducted, the scores are calculated and a report generated. The Admissions Committee reserves the right to request additional interviews before this report is generated.

Selection: The top five (5) applicants are offered admission status and the next five (5) applicants are offered an alternate position for the same year.

Academic Program

Curriculum Integration
The curriculum for the VUMC DMS Program effectively integrates content from both the didactic and clinical education arenas. Students are provided classroom and laboratory instruction prior to the assignment of clinical requirements on the same material. Details that outline this integration are provided in a document titled *Curriculum Threads*, located in the DMS Program Handbook.

Curriculum Sequence/Program Delivery

Course	Lecture	Lab	Practicum / Clinical	Total Hours
Sonographic Patient Care	20.00			20.00
Foundations of Ultrasound and Healthcare*	22.00			22.00
Cross-Sectional Anatomy	22.00			22.00
Abdominal Sonography Techniques I	44.00			44.00
Gynecological Sonography Techniques I	33.00			33.00
Clinical Practicum I			72.00	72.00
Clinical Lab I		66.00		66.00
Obstetrical Sonography Techniques I	36.00			36.00
Basic Physics and Instrumentation	48.00			48.00
Pathophysiology as Related to Sonography	12.00			12.00
Clinical Practicum II			192.00	192.00
Clinical Lab II		72.00		72.00
Abdominal Sonography Techniques II	36.00			36.00
Gynecological Sonography Techniques II	24.00			24.00
Advanced Physics and Instrumentation	24.00			24.00
Clinical Practicum III			288.00	288.00
Clinical Lab III		48.00		48.00
Obstetrical Sonography Techniques II	36.00			36.00
Superficial Structure Sonography Techniques	24.00			24.00
Advanced Abdominal Sonography Techniques	24.00			24.00
Medical Ethics and Law	12.00			12.00

Clinical Practicum IV			288.00	288.00
Clinical Lab IV		48.00		48.00
Certification Preparation*	24.00			24.00
Advanced Ob/Gyn Sonography Techniques	24.00			24.00
Introduction to Basic Vascular Sonography	12.00			12.00
Clinical Practicum V			336.00	336.00
Case Study Review	24.00			24.00
Registry Review	24.00			24.00
Basic Vascular Sonography Lab		24.00		24.00
Clinical Practicum VI			336.00	336.00
Program Totals	525.00	258.00	1,512.00	2,295.00

* Designates course delivery in Blended Distance Education format.

Didactic Education Plan

COURSE	Contact Hours	
	Per Wk	Total
Program Orientation (1-week September)		16
FIRST ROTATION (11 weeks September - December)		
Sonographic Patient Care (5 weeks)	4	20
Foundations of Ultrasound and Healthcare (Distance Education)	2	22
Cross-Sectional Anatomy	2	22
Abdominal Sonography Techniques I	4	44
Gynecological Sonography Techniques I	3	33
Clinical Practicum I (6 weeks)	12	72
Clinical Lab I	6	66
SECOND ROTATION (12 weeks January - March)		
Obstetrical Sonography Techniques I	3	36
Basic Physics and Instrumentation	4	48
Pathophysiology as Related to Sonography	1	12
Clinical Practicum II	16	192
Clinical Lab II	6	72
THIRD ROTATION (12 weeks March - June)		
Abdominal Sonography Techniques II	3	36
Gynecological Sonography Techniques II	2	24
Advanced Physics and Instrumentation	2	24
Clinical Practicum III	24	288
Clinical Lab III	4	48
FOURTH ROTATION (12 weeks July - September)		
Obstetrical Sonography Techniques II	3	36
Superficial Structure Sonography Techniques	2	24
Advanced Abdominal Sonography Techniques	2	24
Medical Ethics and Law	1	12
Clinical Practicum IV	24	288
Clinical Lab IV	4	48

Course Descriptions

FIRST ROTATION (11 weeks; September – December)	
Sonographic Patient Care (5 weeks)	This course is designed to provide instruction of patient care techniques for all clinical settings. Course content is delivered to assist the student in utilizing safe practices while caring for the patient in routine, critical and emergent situations. Students will be introduced to patient care equipment used in the healthcare facility and techniques for maintaining isolation or sterile environments. Communication techniques, both verbal and written, will be demonstrated and practiced throughout the course delivery
Foundations of Ultrasound and Healthcare **(Blended Distance Education)**	This course is designed to develop the student's understanding of the history of medical sonography and its role in the healthcare system while emphasizing the importance of a commitment to the profession and its growth by becoming a lifelong learner. Students will be instructed in the identification of sonographers' roles and responsibilities, the delivery of patient care utilizing the Mission of Vanderbilt University Medical Center, the agencies and professional societies in medical sonography, the exercise of critical thinking and the value of continuing education.
Cross-Sectional Anatomy	This course is designed to introduce the sonography student to cross-sectional anatomy through the use of sonography and other imaging modality exams. Instruction will utilize actual cases to demonstrate image orientation, anatomical relationships, and correlation of data/findings between imaging modalities. An emphasis will be placed on the critical thinking skills necessary to facilitate diagnosis for the sonography patient.
Abdominal Sonography Techniques I	This course is designed to provide the student with the techniques and protocols required to perform sonographic examinations of the major organs and great vessels of the upper abdomen. Sonographic examinations include imaging techniques and evaluation of normal anatomy and its appearance, the interpretation of pertinent lab values along with clinical indications and the transmission of all pertinent data to the interpreting physician to facilitate diagnosis.
Gynecological Sonography Techniques I	This course is designed to provide student with the techniques and protocols required to perform transabdominal and transvaginal sonographic examinations of the female pelvis organs. Sonographic examinations include imaging techniques and evaluation of normal anatomy and its appearance, the interpretation of pertinent lab values along with clinical indications and the transmission of all pertinent data to the interpreting physician to facilitate diagnosis.
Clinical Practicum I (6 weeks)	This clinical course is designed to introduce the student to the ultrasound department and its protocol and procedures. The student will perform basic patient care competencies that promote preparation of the patient and the exam room, as well care of the department equipment and utilization of protocol. Students will be observing a variety of sonographic exams and procedures in the assigned clinical area.
Clinical Lab I	This lab is designed to provide the student with direct supervision and instruction for correlating didactic coursework to the clinical setting. The student will be instructed through role playing, supervised scanning and demonstration techniques.

SECOND ROTATION (12 weeks; January - March)	
Obstetrical Sonography Techniques I	This course is designed to provide the student with the techniques and protocols required to perform sonographic examinations of the gravid patient. Sonographic examinations include imaging techniques and evaluation of the normal pregnancy. This evaluation includes the sonographic anatomy, interpretation of pertinent lab values along with clinical indications and the transmission of all pertinent data to the interpreting physician to facilitate diagnosis.
Basic Physics and Instrumentation	This course is designed to provide the student with the fundamental principles of ultrasound physics and instrumentation. The student will develop a correlation to the function of the ultrasound equipment and imaging techniques.
Pathophysiology as Related to Sonography	This course is designed to introduce the sonography student to the mechanisms of disease processes. The student will learn to identify the etiology and pathogenesis of common pathological conditions as they relate to sonographic imaging.
Clinical Practicum II	This clinical course is designed to provide the student with the opportunity to begin scanning in the clinical setting and demonstrating competency in the performance of exam segments. The student will begin to develop a proficiency of imaging techniques in a progressive manner for the abdomen and pelvic examinations. Direct clinical supervision and instruction will provide guidance for the student to acquire the skills required for quality sonographic imaging.
Clinical Lab II	This lab is designed to further develop the student's skill for abdominal and pelvis ultrasound examinations with direct supervision and instruction. The student will also be introduced to obstetrical sonographic techniques in a controlled and closely supervised environment.
THIRD ROTATION (12 weeks; March - June)	
Abdominal Sonography Techniques II	This course is designed to expand the student's knowledge of normal abdominal sonography technique and appearance in order to evaluate pathological conditions with ultrasound. Correlation of pertinent data and patient history to sonographic appearance is developed to facilitate diagnosis.
Gynecological Sonography Techniques II	This course is designed to expand the student's knowledge of normal gynecological sonography techniques and appearance in order to evaluate pathological conditions with sonography. Correlation of pertinent data and patient history to sonographic appearance is developed to facilitate diagnosis. Both didactic and case discussion will be utilized
Advanced Physics and Instrumentation	This course is designed to provide the student with the knowledge to optimally utilize Doppler techniques in the evaluation of blood flow. Instruction includes vascular hemodynamics and the application of the Doppler effect to evaluate for blood flow abnormalities. Methods of quality assurance and the bioeffects of ultrasound are presented to develop equipment maintenance knowledge.
Clinical Practicum III	This clinical course allows the student to continue progressive skill development for the abdominal, gynecological and obstetrical sonographic examination. The student will begin demonstrating the critical thinking skills required to adapt each exam and its findings to department protocol.

Clinical Lab III	This lab is designed to provide the student with the direct supervision and instruction to develop the skills needed for performing complete abdominal, gynecological and obstetrical examinations, as well as an introduction to advanced ultrasound examinations including assisting physicians with ultrasound guided procedures.
FOURTH ROTATION (12 weeks; July - September)	
Obstetrical Sonography Techniques II	This course is designed to expand the student's knowledge of normal obstetrical sonography techniques and appearance in order to evaluate pathological conditions with sonography. Correlation of pertinent data and patient history to sonographic appearance is developed to facilitate diagnosis.
Superficial Structure Sonography Techniques	This course is designed to provide the student with techniques and protocols to perform sonographic examinations of superficial structures, including the musculoskeletal system, breast, neck, male pelvis and non-cardiac chest. Sonographic examinations include imaging techniques and evaluation of the normal and pathological appearance of these structures. This evaluation includes the sonographic anatomy, interpretation of pertinent lab values along with clinical indications and the transmission of all pertinent data to the interpreting physician to facilitate diagnosis.
Advanced Abdominal Sonography Techniques	This course is designed to provide the techniques and protocols for advanced imaging techniques of the abdomen, including the retroperitoneum, abdominal vascular evaluation, GI tract and ultrasound guided procedures. Sonographic examination includes the evaluation of anatomy and its sonographic appearance, correlation of pertinent data to the sonographic findings and the transmission of all data to the interpreting physician to facilitate diagnosis.
Medical Ethics and Law	This course is designed to provide the student opportunities to learn issues regarding the ethical and legal standards of providing care for patients. The issues include topics such as patient confidentiality, patient's bill of rights, medical malpractice and the importance of holding and maintaining professional credentials. Emphasis will be placed on the responsibility and accountability of the Diagnostic Medical Sonographer
Clinical Practicum IV	During this clinical course the student will perform clinical demonstration of competency in the performance of complete abdominal and gynecological sonographic examinations under the supervision of qualified sonographers. The skills required to perform complete obstetrical sonographic examinations will develop progressively through direct supervision and instruction. The student will demonstrate an increased competence in problem-solving and correlation of all clinical data for the interpreting physician to facilitate diagnosis.
Clinical Lab IV	This lab will promote the student's competence in all sonographic procedures for abdominal, gynecological and obstetrical examinations, including superficial structures and advanced procedures/techniques. Direct supervision and instruction will provide opportunity for the student to develop critical thinking skills required in the clinical setting to problem-solve and respond in routine and emergent situations.

FIFTH ROTATION (12 weeks; September - December)	
Certification Preparation (Blended Distance Education)	This course is designed to promote and facilitate the student's identification of content areas that need reinforcement prior to taking the ARDMS (American Registry of Diagnostic Medical Sonographers) National Registry Exams. The course will assist students in organization and time management to begin the preparation for obtaining the Registered Diagnostic Medical Sonographer credential in Abdomen and Obstetrics/Gynecology.
Advanced Ob/Gyn Sonography Techniques	This course is designed to provide advanced imaging techniques and protocols for the sonographic evaluation of the gravid and non-gravid female pelvis, as well as reinforce the basic techniques of previous courses. Students will be introduced to Doppler evaluation and imaging techniques for the assessment of fetal well-being, genetic evaluations, advanced fetal echocardiography techniques, the role of sonography in the treatment of infertility, the role of the sonographer during invasive sonographic procedures and the latest advances in Ob/Gyn imaging. Course content includes the correlation of pertinent data to the sonographic findings and the transmission of all data to the interpreting physician in order to facilitate diagnosis and exposure to literature review in the advancement of sonographic imaging.
Introduction to Basic Vascular Sonography	This course is designed to introduce the student to basic vascular anatomy and hemodynamics. Instruction will include indications, sonographic anatomy, techniques and protocol for the performance of peripheral vascular and extracranial vascular exams to prepare the students for lab sessions in the following Rotation.
Clinical Practicum V	During this clinical course the student will perform clinical demonstration of competency in the performance of complete abdominal, gynecological and obstetrical sonographic examinations under the supervision of qualified sonographers. The student will begin to demonstrate the skills required to assist physicians during invasive ultrasound guided procedures while under the direct supervision of the physician and qualified sonographer. The student will demonstrate an increased competence in problem-solving and correlation of all clinical data for the interpreting physician to facilitate diagnosis.
SIXTH ROTATION (12 weeks; December - March)	
Case Study Review	This review course will allow the student the opportunity to analyze and critique sonographic examinations, including clinical data, pertinent diagnostic imaging results, sonographic results, image quality and the correlation of all patient data. The emphasis of this course will be on the critical thinking skills of a Diagnostic Medical Sonographer.
Registry Reviews	This course is designed to facilitate the student's identification of content areas that need reinforcement prior to taking the ARDMS (American Registry of Diagnostic Medical Sonography) National Registry Exams. The course will provide students with discussions to facilitate content review and self-assessment, along with regular quizzes and mock board examinations for preparation in obtaining the Registered Diagnostic Medical Sonographer credential in Abdomen and Obstetrics/Gynecology.

Basic Vascular Sonography Lab	This course is designed to introduce the student to basic vascular scanning and hemodynamics assessment. Instruction will include sonographic anatomy, techniques and protocol for the performance of peripheral vascular and extracranial vascular exams. Lab sessions will be provided to demonstrate vascular techniques and an opportunity for the student to practice basic techniques.
Clinical Practicum VI	This final clinical course is designed to allow the student to demonstrate competence and proficiency in the performance of all sonographic examinations included in the areas of study. Close clinical supervision and instruction provides the student with the opportunity to be prepared for entrance into the field of sonography as a competent and compassionate professional.

Student Assessment and Grading

Letter grades are assigned by the following scale for all courses:

Scale	Grade	Definition
95% - 100%	A	Excellent
90% - 94%	A-	Very Good
85% - 89%	B	Good
80% - 84%	B-	Good
75% -79%	C	Satisfactory
74% or below	F	Inadequate
	I	An Incomplete may be used at the discretion of the instructor in cases in which the student is not able to complete work in the normal time. In those instances, the student and instructor develop a written plan for an extension to provide work by a specific date that falls within the period of time specified by the program's requirements. An "I" that is not replaced by a letter grade within the period of time specified by the relevant program's requirements, will be changed to an F after the period specified by the program (a period not to exceed one month).
	W	A Withdrawal is provided when a student leaves the course due to an approved leave-of-absence or is withdrawn from the school prior to the scheduled completion of a course.

Each course syllabus clearly delineates how final grades are calculated. Students who do not complete required work or hours in a course will be assigned a failing grade for the course.

Letter grades are assigned and 'clock hours' recorded on final transcripts. Because the certificate program does not grant credits, Grade Point Averages (GPAs) are not calculated.

Student Clinical Assessment

The DMS Program Clinical Education Plan guides student clinical assessment, and is divided into the following two (2) sections of required clinical performance evaluations:

1. Technical Competencies - These are unique skill sets, outlined in the DMS Program Technical Competencies Plan, which appears in the DMS Program Handbook. The technical competencies provide a pathway for progressive skill development from basic patient care and

portions of abdominal, gynecological, and obstetrical exams to complete exams and advanced imaging skills. Each technical competency must be practiced multiple times during the student's time in the program, with observation and rating by credentialed clinical staff (preceptors). Variable levels of assistance by the preceptor are permitted, but students must meet the minimum requirements of competence, as described in the Technical Evaluation Criteria table, which also appears in the Program Handbook. Specific deadlines for successfully completing the required number of technical competencies are specified in each clinical syllabus.

2. Technical Competency Challenges – In addition to achieving the required technical competencies as described above, the student is required to pass Technical Competency Challenges during each clinical practicum in order to document progressive entry level skill development and complete satisfactory clinical requirements. Technical Competency Challenge requirements are described in the DMS Program Handbook. Technical Competency Challenges may be performed only after 70% of assigned Technical Competencies are satisfactorily completed. Technical Competency Challenges may only be completed with designated, appropriately credentialed clinical staff (Clinical Instructors). Minimal levels of assistance are permitted (as described in the Technical Evaluation Criteria table).

Student who are not successful in completing a Technical Competency Challenge must complete additional repetitions of one or more competencies and consult with the program director before he or she may repeat the Technical Competency Challenge. Two unsuccessful attempts at the same Technical Competency Challenge will result in the student being placed on SAP Warning, and the implementation of a written plan of action required for the student to return to satisfactory academic status. Timely performance of Technical Competency Challenges is required, and failure to meet Challenges by the dates specified in each clinical syllabus will affect Clinical course grades.

Entry level skills and competence are determined in the last Rotation of clinical coursework through the Final Competency Assessment with designated, appropriately credentialed Clinical Instructors.

Satisfactory Academic Progress Policy (SAP)

A student is considered to be maintaining satisfactory academic progress if he/she 1) maintains a 75% academic average in all didactic and clinical courses throughout each curriculum Rotation (12 weeks); 2) maintains a satisfactory performance pace (completion of hours required) within the curriculum course sequence and clinical competency plan, per the course syllabi; and 3) complies with all program policies found in this catalog and in the Program Handbook. Performance will be monitored in an on-going manner throughout activities and a grade for each course assessed at the end of each Rotation.

Graduation Requirements

Students of the VUMC Diagnostic Medical Sonography Program are required to do the following in order to graduate with a Certificate in General Sonography:

1. Complete all didactic and clinical coursework in the Curriculum Plan with a grade of "C" or better as outlined in the Satisfactory Academic Progress Policy.
2. Complete all assigned technical competencies as outlined in the Clinical Competency Plan. Demonstrate competency in technical ability by successfully completing all assigned competency challenges as outlined in the Clinical Competency Plan, including the Final Competency Assessment.
3. Complete all assigned hours in accordance with the Attendance Policy.
4. Satisfactorily complete an original research project and perform a 10-minute presentation for the clinical staff of the VUMC Ultrasound Section. (An opportunity will be available to conduct this research and present it in competition or scientific paper presentation as a group project.)

5. Submit documentation for a total of twelve (12) hours of approved professional development activities.

Upon satisfaction of these requirements, each student is required to participate in an Exit Interview with the Program Director prior to the release of a certificate or transcript.

Student Conduct

In addition to the VUMC Code of Conduct, students in the Diagnostic Medical Sonography Program are bound by standards of conduct specific to their profession. Adherence to the VUMC Code of Conduct and the SDMS Professional Code of Ethics is required of students at all times.

SDMS Professional Code of Ethics

The Society of Diagnostic Medical Sonography (SDMS) was founded in 1970 to promote, advance, and educate its members and the medical community in the science of diagnostic medical sonography. The SDMS is a network of over 28,000 sonographers practicing in all specialty areas, sonography students, educators, physicians, nurses, and other healthcare providers who practice or have an interest in diagnostic medical sonography.

Code of Ethics for the Profession of Diagnostic Medical Sonography
Approved by SDMS Board of Directors, December 6, 2006

PREAMBLE

The goal of this code of ethics is to promote excellence in patient care by fostering responsibility and accountability among diagnostic medical sonographers. In so doing, the integrity of the profession of diagnostic medical sonography will be maintained.

OBJECTIVES

1. To create and encourage an environment where professional and ethical issues are discussed and addressed.
2. To help the individual diagnostic medical sonographer identify ethical issues.
3. To provide guidelines for individual diagnostic medical sonographers regarding ethical behavior.

PRINCIPLES

Principle I: In order to promote patient well-being, the diagnostic medical sonographer shall:

A. Provide information to the patient about the purpose of the sonography procedure and respond to the patient's questions and concerns.
B. Respect the patient's autonomy and the right to refuse the procedure.
C. Recognize the patient's individuality and provide care in a non-judgmental and non-discriminatory manner.
D. Promote the privacy, dignity and comfort of the patient by thoroughly explaining the examination, patient positioning and implementing proper draping techniques.
E. Maintain confidentiality of acquired patient information, and follow national patient privacy regulations as required by the "Health Insurance Portability and Accountability Act of 1996 (HIPAA)."
F. Promote patient safety during the provision of sonography procedures and while the patient is in the care of the diagnostic medical sonographer.

Principle II: To promote the highest level of competent practice, diagnostic medical sonographers shall:

A. Obtain appropriate diagnostic medical sonography education and clinical skills to ensure competence.
B. Achieve and maintain specialty specific sonography credentials. Sonography credentials must be awarded by a national sonography credentialing body that is accredited by a national organization

which accredits credentialing bodies, i.e., the National Commission for Certifying Agencies (NCCA); http://www.noca.org/ncca/ncca.htm or the International Organization for Standardization (ISO); http://www.iso.org/iso/en/ISOOnline.frontpage.

C. Uphold professional standards by adhering to defined technical protocols and diagnostic criteria established by peer review.
D. Acknowledge personal and legal limits, practice within the defined scope of practice, and assume responsibility for his/her actions.
E. Maintain continued competence through lifelong learning, which includes continuing education, acquisition of specialty specific credentials and recredentialing.
F. Perform medically indicated ultrasound studies, ordered by a licensed physician or their designated health care provider.
G. Protect patients and/or study subjects by adhering to oversight and approval of investigational procedures, including documented informed consent.
H. Refrain from the use of any substances that may alter judgment or skill and thereby compromise patient care.
I. Be accountable and participate in regular assessment and review of equipment, procedures, protocols, and results. This can be accomplished through facility accreditation.

Principle III: To promote professional integrity and public trust, the diagnostic medical sonographer shall:

A. Be truthful and promote appropriate communications with patients and colleagues.
B. Respect the rights of patients, colleagues and yourself.
C. Avoid conflicts of interest and situations that exploit others or misrepresent information.
D. Accurately represent his/her experience, education and credentialing.
E. Promote equitable access to care.
F. Collaborate with professional colleagues to create an environment that promotes communication and respect.
G. Communicate and collaborate with others to promote ethical practice.
H. Engage in ethical billing practices.
I. Engage only in legal arrangements in the medical industry.
J. Report deviations from the Code of Ethics to institutional leadership for internal sanctions, local intervention and/or criminal prosecution. The Code of Ethics can serve as a valuable tool to develop local policies and procedures.

Other Program Policies

Professional Progression, Career Advising

Each student enrolled in the VUMC DMS Program has access to faculty and staff members for academic and professional advising. The Program Director is the primary source for this type of student advising; however, the student may approach other faculty members, clinical instructors or staff of the VUMC Ultrasound and/or Radiology Department. Other Center for Programs in Allied Health staff members are also available by appointment to assist students as necessary. All official academic advising conducted by program faculty and staff, and is documented and retained in the student's record.

Employment Placement for Program Graduates

The DMS Program's accreditor (CAAHEP) requires reporting of outcomes and achievement of designated outcomes pertaining to graduate placement in a related position of employment. The DMS Program assumes that all graduates desire to obtain employment within a relative short time beyond graduation (if a position is not secured prior to graduation). While VUMC does not guarantee employment offers or engage in job searches for students, Program Faculty and Staff can offer assistance and advising related to searching for a position. There are numerous ways the program can assist a self-driven student to secure employment. These include, but are not limited to:

- Notification to students about available positions
- Review and feedback on resume development
- Provide resources for conducting job searches
- Provide references and/or academic verification

Since the DMS Program is required to report information on student employment placement to their accrediting bodies, graduates are asked to provide detailed information regarding employment. Necessary information will be requested at the Exit Interview. If the student has not yet obtained employment, he or she will be expected to provide the information as soon as it becomes available. VUMC will contact graduates regarding employment status in order to fulfill accreditation reporting requirements. Employment information (including changes) is needed by the program for the first 12 calendar months beyond graduation. Compliance with this request is necessary for outcomes documentation and distribution of graduate and employer surveys.

Certification/Credentialing/National Examination/State Licensure

The DMS Program's accreditor (CAAHEP) requires reporting of program outcomes and achievement of designated benchmarks. Graduate credentialing rates are among the numerous outcomes assessed. CAAHEP requires reporting for all eligible specialties. The Program exhausts all efforts to provide students with the information and resources necessary to be successful at professional credentialing exams. The ARDMS has transitioned over the past few years to permit students attending accredited programs the opportunity to apply and take these credentialing exams prior to graduation from the program. While a student may successfully complete the exams prior to graduation, the credential is not released until the Program Director indicates successful completion of the program (*see Graduation Requirements).*

In order to earn the RDMS (Registered Diagnostic Medical Sonographer) credential, one must successfully complete the Sonography Principles and Instrumentation (SPI) exam AND a corresponding Specialty exam (i.e., Abdomen, Obstetrics/Gynecology, etc.). VUMC is accredited as a General Sonography Program that deems its students eligible to apply for and earn the RDMS credential in Abdomen and Obstetrics/Gynecology. This credentialing process results in one (1) credential in two (2) specialties. These exams may be taken while still enrolled in the program under the following parameters:

- Sonography Principles and Instrumentation may be taken immediately upon satisfactory completion of the Physics coursework
- Specialty exams (Abdomen and Obstetrics/Gynecology) may be applied for and taken within the last sixty (60) days of the Academic Calendar

While the DMS Program is required by its accreditors to achieve high rates of student credentialing, it is of utmost importance to the student that appropriate credentials are obtained in the search for employment. Few employers hire graduates prior to being credentialed, but they often offer employment with a condition of obtaining certain credentials. The Program Faculty and Staff expect that VUMC students, as leaders in their field, pursue the full credentialing for which they are eligible prior to and upon graduation.

Students are advised that while the DMS Program provides an introduction to the Vascular Technology specialty, the program does NOT have the clinical resources to ensure proficiency in the full spectrum of vascular examinations. However, with the foundation of knowledge gained at VUMC, many graduates have secured employment that provided the necessary additional training to prepare for the RVT (Registered Vascular Technologist) credential. A graduate can earn the RVT after gaining additional clinical training and experience, and subsequently successfully completing the Vascular Technology (VT) Specialty Exam. Additional details are available from the Program Director for those interested.

Organizations Related to Sonography

Numerous professional organizations are open and available to students for membership or general information:

American Registry of Diagnostic Medical Sonography
www.ardms.org

Society of Diagnostic Medical Sonography (Student membership is welcome and encouraged)
www.sdms.org

American Institute of Ultrasound in Medicine (Student membership is welcome and encouraged)
www.aium.org

Commission for Accreditation of Allied Health Education Programs (CAAHEP)
www.caahep.org

Joint Review Commission for Education in Diagnostic Medical Sonography (JRC-DMS)
www.jrcdms.org

Equipment List

Phillips 5000
- Transducers
  - L7-4, C7-4, C5-2, P4-1 and C8-4v
  -

Acuson Sequoia
- Transducers
  - C4-1

This catalog contains only a summary of program policies and procedures. Students should refer to the program handbook for additional information.

DIETETIC INTERNSHIP (DI)

Program Description

The Vanderbilt University Medical Center (VUMC) Dietetic Internship program provides comprehensive supervised practice experiences for 16 interns each year, as a route to eligibility for the national credentialing examination for Registered Dietitian Nutritionists. The DI provides a pre-eminent supervised practice program that is an excellent model for the preparation of knowledgeable, talented and compassionate entry level dietitians delivering high quality nutrition therapy in the hospital and innovative nutrition programming within community-based systems and networks. Complete information about the program curriculum may be found on its website, at https://ww2.mc.vanderbilt.edu/DieteticInternship/.

Graduation Document

The Vanderbilt Dietetic Internship program provides comprehensive supervised-practice experiences leading to a certification of completion that affords the graduate eligibility for the national credentialing examination for Registered Dietitians, as well as for licensure in Tennessee. Upon successful completion of the internship, each intern participates in a graduation ceremony held in mid-June. At this ceremony, interns receive a Verification Statement. Following graduation, the Internship Director completes each graduate's Candidate Eligibility Application using the REPS On-Line System.

Program Length

The Vanderbilt University Medical Center Dietetic Internship program is a 10-month (August-June), post-baccalaureate, supervised-practice certificate program. Students complete 1,286 hours during this full-time, 44-week program.

Delivery Method: Residential

Mission, Credo and Goals

Dietetic Internship Mission Statement

The Vanderbilt Dietetic Internship will provide a **pre-eminent** supervised practice **program** that is an excellent model for preparing **knowledgeable, talented** and **compassionate** entry level dietitians delivering high quality nutrition therapy in the hospital and innovative nutrition programming within community based systems and networks.

Philosophy and Goals of the Dietetic Internship Program

VUMC is vitally involved in the education of healthcare professionals. The Medical Center provides the facilities and resources to serve as a teaching laboratory through which the dietetic intern can progress toward becoming a competent entry-level dietitian.

The 44-week Dietetic Internship, beginning in August each year, provides an opportunity for dietetic interns to gain a variety of clinical experiences at Vanderbilt, its affiliations and through field observations in the areas of food systems management, clinical dietetics and community nutrition. Such experiences are planned, guided and evaluated by the Internship Director, Educational Coordinator, dietitians and other professionals practicing in many areas of dietetics and healthcare who serve as both teachers and role models.

The dietetic interns contribute to the overall excellence of nutrition care at Vanderbilt and the affiliates by providing patient care and education, by providing stimulation to the staff and by engaging in projects that are beneficial to the institutions. With emphasis on education, the program benefits the community by providing sound information on nutrition and health to the public.

GOAL#1: To prepare entry level dietitians in core competencies and concentration competencies in disease management/ health promotion as a route to eligibility for credentialing by the Commission on Dietetic Registration.

GOAL#2: To provide a supply of competent entry-level dietitians to influence the supply and distribution of dietitians for Vanderbilt University Medical Center and the nation.

Programmatic Accreditation/Approvals

The Vanderbilt University Medical Center Dietetic Internship program is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics (AND). As the accrediting agency for education programs preparing students for careers as registered dietitian nutritionists (RDN) or dietetic technicians, registered (DTR), ACEND serves and protects students and the public by assuring the quality and continued improvement of nutrition and dietetics education programs.

ACEND (*the accrediting agency of* AND, Academy of Nutrition and Dietetics**)** Accreditation Council for Education in Nutrition and Dietetics
120 South Riverside Plaza, Suite 2000
Chicago, IL 60606-6995
Phone: 312.899.0040 ext. 5400

The Vanderbilt Dietetic Internship program provides comprehensive supervised practice experiences as a route to eligibility for the national credentialing examination for Registered Dietitians as well as for licensure in Tennessee. Many states require licensure before an individual is able to practice as a Registered Dietitian. Please check licensure guidelines for the state in which you plan to seek employment.

Program Staff and Faculty

Elizabeth W. Robinson, M.Ed., R.D., L.D.N., Program Director (Full-time)
MEd, 1988, Vanderbilt University, Nashville, TN; Certificate, Dietetic Internship, 1984, Vanderbilt University Medical Center, Nashville, TN; BS, Foods and Nutrition, 1980, University of Utah, Salt Lake City, UT

Dianne Killebrew, M.Ed. R.D., L.D.N., Educational Coordinator (Full-time)
MEd, 1982, Vanderbilt University, Nashville, TN; Certificate, Dietetic Internship, 1982, Vanderbilt University Medical Center, Nashville, TN; BS, Dietetics, 1980, Lipscomb University, Nashville, TN

Academic/Program Calendar 2018 - 2019

This 44-week program typically runs from August to June of each year.

08/20/2018	Start Date
09/03/2018	Labor Day - No Rotations
11/19/2018 - 11/23/2018	Thanksgiving Break
12/21/2018- 01/06/2019	Christmas Break
04/19/2019	Good Friday - No Rotations
05/24/2019	Memorial Day - No Rotations
06/24/2019	Graduation

Admission

VUMC requires that all applicants to the allied health certificate programs must have a high school diploma, GED, or recognized equivalent. Further, VUMC allows an applicant to submit a copy of a post-secondary degree (i.e., Associate's, Bachelor's or Master's) in lieu of a copy of the high school diploma.

In addition to the minimum requirements listed above, the admission requirements include the following:

1. A baccalaureate degree from a regionally accredited college or university is required. (There is not a minimum grade point average (GPA) for application consideration).
2. We DO NOT require a personal interview for acceptance into the Vanderbilt University Medical Center Dietetic Internship.
3. Applicants must successfully complete the knowledge requirements and a didactic program in dietetics as stated in the requirements for membership by The Academy of Nutrition and Dietetics.
4. Degrees granted more than five years prior to application must be updated through completion of additional course work in MNT/the Nutrition Care Process and food systems management.
5. The degree and all course work must be completed before the internship begins. Courses in progress must be successfully completed.
6. An official transcript verifying degree was conferred and a verification statement from the didactic Program Director must be received prior to beginning the internship.
7. The Graduate Record Examination (GRE) is not required for admission or application

Application Procedures
The Dietetic Internship Program at VUMC uses the online centralized internship application, referred to as DICAS. Applicants may write to or call the Director to discuss any conditions that might involve special accommodations. Applicants are encouraged to visit the facility or call the internship staff to discuss the program.

There are three steps to complete the application process:

1. DICAS Online
2. Supplemental VUMC Application
3. D & D Digital Computer Matching

Step 1: DICAS
DICAS can be accessed at the https://portal.dicas.org
Email DICASinfo@DICAS.org. The online application MUST be completed by 11:59 pm (CDT) on February 15th (date is the same each year, regardless of day of the week).

The fee to DICAS is $45 for the first application submitted and $20 for each additional application.

On the DICAS application, applicants will be asked to complete a personal statement in 1,000 words or fewer. Questions to be addressed in the personal statement include:

- Why do you want to enter the profession of dietetics?
- What are some experiences that have helped to prepare you for your career?
- What are your short-term and long-term goals**?**
- What are your strengths and weaknesses or areas needing improvement?
- Why are you a good fit for the VUMC dietetic internship?
- What contribution will you make to VUMC and the community at large, during your internship?

Official transcripts from all colleges and universities attended should be sent to:
DICAS – Transcript Department PO Box 9118
Watertown, MA 02472

When completing the application form, you must include the name and contact information (specifically an e-mail address) for each reference. This will trigger an e-mail message requesting completion of a reference form. The form will be completed online.

Students submitting more than one application will need to use the same individuals as references for each application.

Step 2: Supplemental Application
Complete the Supplemental Application Form (available on the VUMC Dietetic Internship website) and mail along with a $50 check made payable to the VUMC Dietetic Internship. This fee is non-refundable. Mail the form to:
Vanderbilt University Medical Center
Elizabeth W. Robinson, MEd, RD, LDN Dietetic Internship Director
1301 Medical Center Drive, B-802 TVC Nashville, TN 37232-5510
Postmark date on the Supplemental Application Form must be on or before **February 15th** (date is the same each year, regardless of day of the week).

Step 3: D&D Digital
Register online for computer matching and select your dietetic internship priority choices by 11:59 pm Central Time on February 15th (date is the same each year, regardless of day of the week).
There is a $55 computer matching fee to D & D Digital payable when your priority choices are identified.
http://www.dnddigital.com
D & D Digital Systems Suite 301
304 Main Street
Ames, IA 500100
(515) 292-0490 or dnd@sigler.com

Student Selection and Acceptance

1. Applications are reviewed by a selection committee that includes internship faculty, preceptors, and current interns. Each member of the committee reviews all assigned internship applications. The application review process is done without discussion. Each committee member ranks each applicant. The collective ranking by committee members determines the ranking submitted to D& D Digital.
2. Sixteen interns are selected for the 44-week program (the program typically runs from August to June).
3. Information from applicant visits to the facility (or from calls to the internship staff to discuss the program) is not used to select applicants, nor is preference given to candidates who choose to visit.
4. Discussions with the director regarding special accommodations are not required for admission and will not be considered in the selection process.
5. Appointments are awarded without regard to race, sex, religion, color, national or ethnic origin, age, disability, military service, or genetic information. Marital status, age and geographic area of the applicant are not considered.

Academic Program

Program Sequence and Delivery

Course	Lecture	Lab	Practicum / Clinical	Total Hours
Dietetic Internship	0	0	1286.00	1286.00
Program Totals	0	0	1286.00	1286.00

Dietetic Internship Program Syllabus
The Dietetic Internship Program Syllabus provides essential information about the learning activities that take place during the internship, as well as the grading and evaluation criteria against which student performance will be assessed. Students are expected to review and be responsible for Syllabus content as much as they are for content in this catalog and in the Intern Program Handbook.

Graduation Requirements for the Dietetic Internship and Eligibility For Registration Examination
Learning activities (in rotations, community events, professional development days and special projects) are planned to enable the dietetic intern to attain competence in the 41 Core Competencies for Dietitians and 3 Concentration Competencies in the areas of disease management / health promotion as outlined in the Standards of Education. The planned activities for each rotation, community event, professional development day and special project are minimum requirements for every intern. Experience and initiative of the intern will determine the objectives accomplished beyond the minimum. Additionally, interns must comply with the Standards of Responsibility, the Standards of Practice of The Academy of Nutrition and Dietetics and the Vanderbilt University Medical Center Dietetic Internship Honor Code. The minimum number of hours required to complete the Vanderbilt University Medical Center Dietetic Internship Program is 1,286.

An exit interview is scheduled during summary week to summarize performance. A minimum overall average score of 80 and a score of 80 in each of the four core competency categories, case studies, entry level practice rotations, and concentration area rotation must be achieved to meet requirements for receipt of a Verification Statement. Clinical and management entry-level practice rotations, concentration area rotation and case studies may not be repeated. Conferences may also be scheduled at any time by the staff or at the request of the dietetic intern.

Student Assessment and Grading
Student performance is assessed through the use of competencies. A detailed list of Core Competencies for Dietitians is provided in the Syllabus for the VUMC Dietetic Internship Program. Students should refer to these regularly and be familiar with them.

The competencies used to assess student performance vary by activity and assignment, given that each activity requires different skills and abilities. As a result, the competency/objective/evaluation form used to assess students is unique to each rotation, but in all cases the form contains rotation-specific core competencies each intern is expected to achieve throughout individual rotations.

Competency/Objective/Evaluation Form

1. The competency/objective/evaluation form is used to evaluate the intern's performance. After completing the rotation, the intern contacts the preceptor to schedule an evaluation conference. Typically, the conference is held within 14 days of intern's completion of the rotation. The intern must sign this form after reviewing the written evaluation. During a rotation, periodic oral conferences between interns and preceptors are also useful in determining the intern's progress.
2. The intern uses a copy of the same competency/objective/evaluation form for self-evaluation and to evaluate the learning experiences offered during the rotation.
3. The intern brings his/her completed competency/objective form to the evaluation conference.
4. After discussion, the intern and preceptor set goals for competencies or areas that need additional experience. These should then be recorded by the intern on the professional development form for upcoming rotation(s).
5. If necessary, the Educational Coordinator or Internship Director is consulted to make necessary arrangements for additional or altered learning experiences.
6. The Internship staff then calculate overall scores for each rotation, utilizing scores from core competencies (60%) and overall performance rating (40%). These are recorded on the

summative evaluation form by the Internship staff and discussed at conferences throughout the semester and at mid-term and exit conferences.

The Internship staff assimilates the evaluations to determine whether the intern has attained the competence required for entry-level practice. A numerical rating scale is used to rate minimum performance. Conferences with the Internship staff are scheduled throughout the semester and at mid-year to review each intern's progress and discuss educational experiences during the remainder of the program.

Attendance
Attendance is required and punctuality is expected for each rotation day, as well as for all class days, community events and conferences. Make-up time must be scheduled for all absences. If an intern misses:

- 50% of a core rotation

OR

- One or more days during entry-level practice rotation or concentration rotation

he or she will receive an incomplete for the rotation. The intern will be scheduled to make up the missed time. The maximum time frame for completing the Vanderbilt University Medical Center Dietetic Internship is 15 months (150% of the 10-month program).

Satisfactory Academic Progress (SAP)

SAP Standards
Interns in the Vanderbilt University Medical Center Dietetic Internship Program are evaluated on a numerical rating scale (based on 100 points) by the rotation site preceptor. The student is considered as maintaining satisfactory academic performance if he/she maintains a minimum average score of 70 in rotations, and 80 on assignments (as indicated below), to be evaluated at the end of each rotation.

Rotations: Disease Management and Health Promotion (mbc)	>=70%	Required for each rotation
Four Core Competency Categories, Case Studies, Entry Level Practice Rotation, and Concentration Area Rotation	>=80%	Work assignments other than rotations
Required Midyear Grade	>=70%	Overall grade required at Midyear for continuance in the program
Total Overall Average	>=80%	Required at completion of Internship as overall composite percentage out of 100 points total

An overall average score of 70 is required at mid-term for continuance in the program. Additionally, an intern may not continue in the program if an overall score of less than 70 is earned in three rotations. The mid-year and final internship scores will have a 5% deduction for each unexcused absence or excessive tardiness. Rotation scores will be reduced 5% for excessive tardiness to that rotation. Excessive tardiness is defined as two or more late arrivals to class, community event or rotation; three tardies results in academic probation and five tardies results in dismissal from the program.

Codes of Conduct and Ethics

In addition to the VUMC Code of Conduct, Dietetic Interns are bound by standards of conduct specific to their profession. Adherence to the VUMC Code of Conduct and the Code of Ethics for the Profession of Dietetics is required of students at all times.

Code of Ethics for the Profession of Dietetics

Preamble:
When providing services the nutrition and dietetics practitioner adheres to the core values of customer focus, integrity, innovation, social responsibility, and diversity. Science-based decisions, derived from the best available research and evidence, are the underpinnings of ethical conduct and practice.

This Code applies to nutrition and dietetics practitioners who act in a wide variety of capacities, provides general principles and specific ethical standards for situations frequently encountered in daily practice. The primary goal is the protection of the individuals, groups, organizations, communities, or populations with whom the practitioner works and interacts.

The nutrition and dietetics practitioner supports and promotes high standards of professional practice, accepting the obligation to protect clients, the public and the profession; upholds the Academy of Nutrition and Dietetics (Academy) and its credentialing agency the Commission on Dietetic Registration (CDR) Code of Ethics for the Nutrition and Dietetics Profession; and shall report perceived violations of the Code through established processes.

The Academy/CDR Code of Ethics for the Nutrition and Dietetics Profession establishes the principles and ethical standards that underlie the nutrition and dietetics practitioner's roles and conduct. All individuals to whom the Code applies are referred to as "nutrition and dietetics practitioners". By accepting membership in the Academy and/or accepting and maintaining CDR credentials, all nutrition and dietetics practitioners agree to abide by the Code.

Principles and Standards:

1. **Competence and professional development in practice (Non-maleficence)**
   Nutrition and dietetics practitioners shall:
   a. Practice using an evidence-based approach within areas of competence, continuously develop and enhance expertise, and recognize limitations.
   b. Demonstrate in depth scientific knowledge of food, human nutrition and behavior.
   c. Assess the validity and applicability of scientific evidence without personal bias.
   d. Interpret, apply, participate in and/or generate research to enhance practice, innovation, and discovery.
   e. Make evidence-based practice decisions, taking into account the unique values and circumstances of the patient/client and community, in combination with the practitioner's expertise and judgment.
   f. Recognize and exercise professional judgment within the limits of individual qualifications and collaborate with others, seek counsel, and make referrals as appropriate.
   g. Act in a caring and respectful manner, mindful of individual differences, cultural, and ethnic diversity.
   h. Practice within the limits of their scope and collaborate with the inter-professional team.

2. **Integrity in personal and organizational behaviors and practices (Autonomy)**
   Nutrition and dietetics practitioners shall:
   a. Disclose any conflicts of interest, including any financial interests in products or services that are recommended. Refrain from accepting gifts or services which potentially influence or which may give the appearance of influencing professional judgment.
   b. Comply with all applicable laws and regulations, including obtaining/maintaining a state license or certification if engaged in practice governed by nutrition and dietetics statutes.

c. Maintain and appropriately use credentials.

d. Respect intellectual property rights, including citation and recognition of the ideas and work of others, regardless of the medium (e.g. written, oral, electronic).

e. Provide accurate and truthful information in all communications.

f. Report inappropriate behavior or treatment of a patient/client by another nutrition and dietetics practitioner or other professionals.

g. Document, code and bill to most accurately reflect the character and extent of delivered services.

h. Respect patient/client's autonomy. Safeguard patient/client confidentiality according to current regulations and laws.

i. Implement appropriate measures to protect personal health information using appropriate techniques (e.g., encryption).

3. Professionalism (Beneficence)

Nutrition and dietetics practitioners shall:

a. Participate in and contribute to decisions that affect the well-being of patients/clients.

b. Respect the values, rights, knowledge, and skills of colleagues and other professionals.

c. Demonstrate respect, constructive dialogue, civility and professionalism in all communications, including social media.

d. Refrain from communicating false, fraudulent, deceptive, misleading, disparaging or unfair statements or claims.

e. Uphold professional boundaries and refrain from romantic relationships with any patients/clients, surrogates, supervisees, or students.

f. Refrain from verbal/physical/emotional/sexual harassment.

g. Provide objective evaluations of performance for employees, coworkers, and students and candidates for employment, professional association memberships, awards, or scholarships, making all reasonable efforts to avoid bias in the professional evaluation of others.

h. Communicate at an appropriate level to promote health literacy.

i. Contribute to the advancement and competence of others, including colleagues, students, and the public.

3. Social responsibility for local, regional, national, global nutrition and well-being (Justice)

Nutrition and dietetics practitioners shall:

a. Collaborate with others to reduce health disparities and protect human rights.

b. Promote fairness and objectivity with fair and equitable treatment.

c. Contribute time and expertise to activities that promote respect, integrity, and competence of the profession.

d. Promote the unique role of nutrition and dietetics practitioners.

e. Engage in service that benefits the community and to enhance the public's trust in the profession.

f. Seek leadership opportunities in professional, community, and service organizations to enhance health and nutritional status while protecting the public.

Glossary of Terms:
Autonomy: ensures a patient, client, or professional has the capacity and self-determination to engage in individual decision making specific to personal health or practice.1
Beneficence: encompasses taking positive steps to benefit others, which includes balancing benefit and risk.1
Competence: a principle of professional practice, identifying the ability of the provider to administer safe and reliable services on a consistent basis.2
Conflict(s) of Interest(s): defined as a personal or financial interest or a duty to another party which may prevent a person from acting in the best interests of the intended beneficiary, including simultaneous membership on boards with potentially conflicting interests related to the profession, members or the public.2
Customer: any client, patient, resident, participant, student, consumer, individual/person, group, population, or organization to which the nutrition and dietetics practitioner provides service.3
Diversity: "The Academy values and respects the diverse viewpoints and individual differences of all people. The Academy's mission and vision are most effectively realized through the promotion of a diverse membership that reflects cultural, ethnic, gender, racial, religious, sexual orientation, socio-economic, geographical, political, educational, experiential and philosophical characteristics of the public it services. The Academy actively identifies and offers opportunities to individuals with varied skills, talents, abilities, ideas, disabilities, backgrounds and practice expertise."4
Evidence-based Practice: Evidence-based practice is an approach to health care wherein health practitioners use the best evidence possible, i.e., the most appropriate information available, to make decisions for individuals, groups and populations. Evidence-based practice values, enhances and builds on clinical expertise, knowledge of disease mechanisms, and pathophysiology. It involves complex and conscientious decision-making based not only on the available evidence but also on client characteristics, situations, and preferences. It recognizes that health care is individualized and ever changing and involves uncertainties and probabilities. Evidence-based practice incorporates successful strategies that improve client outcomes and are derived from various sources of evidence including research, national guidelines, policies, consensus statements, systematic analysis of clinical experience, quality improvement data, specialized knowledge and skills of experts.2
Justice (social justice): supports fair, equitable, and appropriate treatment for individuals1 and fair allocation of resources.
Non-Maleficence: is the intent to not inflict harm.1

References:
1. Fornari A. Approaches to ethical decision-making. *J Acad Nutr Diet.* 2015;115(1):119-121.
2. Academy of Nutrition and Dietetics Definition of Terms List. June, 2017 (Approved by Definition of Terms Workgroup Quality Management Committee May 16, 2017). Accessed October 11, 2017. http://www.eatrightpro.org/~/media/eatrightpro%20files/practice/scope%20standards%20of%20practice/academydefinitionof termslist.ashx
3. Academy of Nutrition and Dietetics: Revised 2017 Standards of Practice in Nutrition Care and Standards of Professional Performance for Registered Dietitian Nutritionists. *J Acad Nutr Diet.* 2018; 118: 132-140.
4. Academy of Nutrition and Dietetics "Diversity Philosophy Statement" (adopted by the House of Delegates and Board of Directors in 1995).

Vanderbilt Dietetic Internship Honor Code
Interns are required at all times to follow the VUMC Center for Programs in Allied Health Academic Integrity/Honor Code (see institutional policies section of this catalog for more details). Similarly, the VUMC Dietetic Internship has established a program-specific Honor Code to highlight the importance of academic and personal integrity.

As professional students, it is expected that the Vanderbilt Dietetic Internship Honor Code is followed at all times. All projects submitted are presumed to be the intern's own work unless credit is given using the proper format. The following are considered violations of the Honor Code and will result in dismissal from the Internship.

1. Cheating on an examination, test or written project
2. Plagiarizing (incorporating into one's own work the work of another without identifying the source) in an assigned paper, report or project
3. Submitting work prepared by another person as one's own (including use of texts, papers, computer programs, or other class work prepared by commercial or noncommercial agents)
4. Submitting work prepared for another rotation without the specific prior authorization of the supervising dietitian
5. Falsely reporting personal illness or work hours on monthly time sheets
6. Falsification of results of study and research

The grievance procedure shall be available to the dietetic intern when disciplinary action is recommended as a result of an alleged Honor Code violation.

Student Grievance Procedure
The institutional section of this catalog provides information about the VUMC Center for Programs in Allied Health Student Grievance Policy and Procedures. In addition, Dietetic Interns have the opportunity to file complaints to the program accreditor related to the VUMC Dietetic Internship's compliance with accreditation and approval standards. Information about this is provided below. Interns are protected from retaliation as a result of filing a complaint related to the Vanderbilt Dietetic Internship program.

NOTICE OF OPPORTUNITY TO FILE COMPLAINTS WITH THE ACCREDITATION COUNCIL FOR EDUCATION IN NUTRITION AND DIETETICS

The Accreditation Council for Education in Nutrition and Dietetics will review complaints that relate to a program's compliance with the accreditation/approval standards. The Council is interested in the sustained quality and continued improvement of dietetics education programs but does not intervene on behalf of individuals or act as a court of appeal for individuals in matters of admission, appointment, promotion or dismissal of faculty, staff, or students.

A copy of the accreditation/approval standards and/or the Council's policy and procedure for submission of complaints may be obtained by contacting the Education and Accreditation staff at The Academy of Nutrition and Dietetics at 120 South Riverside Plaza Suite 2000, Chicago, Illinois 60606 or by calling 1-800-877-1600 extension 4872.

Written complaints should be mailed to the Chair, Accreditation Council for Education in Nutrition and Dietetics at the above address. **Adopted: July 1994**

Other Program Policies

Professional Meetings
Professional meetings are an important part of professional development. Meetings of the Nashville Academy of Nutrition and Dietetics (NAND) are held quarterly, September through May. Meetings for the Middle Tennessee Society for Parenteral and Enteral Nutrition (MTSPEN) are held several times throughout the year as well. Intern dues for NAND are $20.00. Intern dues for the Academy of Nutrition and Dietetics are $50.00. Costs related to these activities are included in the VUMC Center for Programs in Allied Health Cost of Attendance Table in this catalog.

Interns are expected to attend a *minimum* of one meeting of the NAND in addition to the fall 2018 NAND Interns' Welcome Reception, unless told otherwise by the Internship Director. At times, it may be appropriate for the Internship staff or preceptor to modify the learning objectives in order for an intern to attend a special meeting.

Equipment List

Dietetic Internship does not utilize equipment for student use.

This catalog contains only a summary of Dietetic Internship program policies and procedures. Students should refer to the Dietetic Internship Program Handbook and Syllabus for more detailed information.

MEDICAL LABORATORY SCIENCE (MLS)

Program Description

The Vanderbilt University Medical Center sponsors the Medical Laboratory Science program, which operates within the Department of Pathology, Microbiology, and Immunology and the VUMC Diagnostic Laboratories. The VUMC Medical Laboratory Science Program was originally sponsored by the Veterans Administration Hospital and graduated its first class in 1954. Sponsorship was transferred to Vanderbilt University Hospital in 1968, and the program has been in continuous operation since that time.

Medical laboratory scientists, are trained in all major clinical pathology areas including Clinical Chemistry, Hematology, Hemostasis and Thrombosis, Immunopathology, Immunohematology, Microbiology, Urinalysis & Body Fluids, Molecular Diagnostics and Management/Supervisory skills.

Training includes both didactic and practical experiences. Laboratory and classroom space is located in Light Hall on the VUMC campus, and additional space is assigned throughout the Diagnostic Labs for student use. There is also space within the Vanderbilt Clinic that is designated as the Medical Laboratory Science program office and library. The program officials include a Medical Director, Program Director/Education Supervisor, and faculty from each area of the laboratory who are experts in their respective fields.

Certification/Credentialing

Upon successful completion of the program, students are awarded a Certificate in Medical Laboratory Science and are eligible to sit for exams to receive national certification. Upon receipt of national certification by a recognized national agency, students become eligible for licensure from the State of Tennessee as a Medical Laboratory Technologist.

Program Length

Students complete 1,951 clock hours during 56 weeks of full-time study. Classes begin the first week of June and continue until the end of June the following year.

Delivery Method: Residential

Program Mission, Credo and Goals

Program Philosophy and Mission Statement

The Medical Laboratory Science Program strives to maintain a quality education program in order to accomplish the following outcomes.

To provide well-trained, competent employees for the laboratories.

Since the students have been trained in our facilities, they are oriented to the policies and procedures and are ready to begin employment upon graduation. This saves the institution money in terms of recruitment and employee selection. Students who choose to work at other facilities following graduation are able to bring with them the ability to work in a fast-paced environment and an understanding of many testing procedures with varying complexities.

To provide a stimulating atmosphere for the laboratory staff.

Being involved in laboratory education supports providing an up-to-date atmosphere and ensuring that laboratory professionals maintain current knowledge of theory and testing procedures. Employees are challenged to investigate new trends in the field, which can positively impact patient care.

To maintain a source of professionals who can constantly bring new knowledge into the laboratory system.
In this way stagnation and job dissatisfaction are reduced in the laboratory. Laboratory professionals are able to engage and share knowledge with students, which also ensures that the students will have current, practical knowledge upon entering the workforce.

To supply the region with medical laboratory scientists who possess advanced skills.
The Medical Center encompasses a variety of services with a wide range of testing. As former students move out into the community, they carry with them skills and knowledge, which will enhance less diverse institutions.

To advance the profession of Medical Laboratory Science by training enterprising and adaptable individuals who will take the forefront in the changing environment of health care.
The field of Medical Laboratory Science is at a significant point in its evolution due to the impact of Federal legislation and accelerated technological advances. This will require laboratory scientists with vision who are willing to influence the direction that their chosen career will be taking. Students learn in a comprehensive, progressive environment to promote and foster innovation and advancement.

Program Goals/Objectives
The Medical Laboratory Science Program at Vanderbilt University Medical Center bases its educational program on principles essential to the preparation of students to achieve the ideals of the profession. The VUMC Medical Laboratory Science program strives to instill in each student:

- The knowledge, skills and professional attitude necessary to accurately and proficiently perform and evaluate clinical laboratory analyses.
- The concern for others which carries with it the responsibility of good patient care and cooperation with fellow employees.
- The desire to strive for new knowledge and progress and to accept changing trends in the profession.
- The capacity to accept leadership roles whether in management or education.
- Interest in the growth and development of medical laboratory science as a profession

Programmatic Accreditation/Approvals

The Medical Laboratory Science Program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). NAACLS is recognized by the Council for Higher Education Accreditation, and is committed to quality in education and educational review. The program is also licensed by the State of Tennessee as required by the Tennessee Laboratory Act and is approved to operate by the Tennessee Department of Health. Students completing the year of training are eligible for the national certification as a Medical Laboratory Scientist by examination through agencies such as the American Society of Clinical Pathologist Board of Certification (BOC).

Upon receipt of national certification, the graduate becomes eligible for state licensure by the Tennessee Department of Health.

NAACLS:
National Accrediting Agency for Clinical Laboratory Sciences 5600 N. River Road, Suite 720
Rosemont, Illinois 60018-5119
Phone: 773.714.8880 Fax: 773.714.8886
E-mail: info@naacls.org

ASCP BOC:
American Society of Clinical Pathologist Board of Certification 33 W. Monroe Street, Suite 1600
Chicago, IL 60603 www.ascp.org

Tennessee Department of Health: Medical Laboratory Board
665 Mainstream Drive, 2nd Floor Nashville, TN 37243
Phone: 615.532.5128 local or 1.800.778.4123 nationwide

Program Staff and Faculty

Holly Covas, MPH, MLS (ASCP)[CM]
Program Director (Full-time)
MPH, Public Health, University of California, Berkeley, 2014; BS, Clinical Laboratory Science, 2010, University of Mississippi Medical Center, Jackson, MS; AAS, Medical Laboratory Technology, 2007, Meridian Community College, Meridian, MS

Garrett Booth, M.D., MS, Medical Director
Professor of Pathology, Microbiology & Immunology (Part-time) Associate Medical Director, Transfusion Medicine
MD, 2007, University of Arizona College of Medicine, Tucson, AZ; MS, Epidemiology, 2002, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD; BS, Neuroscience and Psychobiology, 2000, UCLA Honor's College, Los Angeles, CA

Gail Baxter, MHA, MT (ASCP)
Instructor (Part-time)
BA, Biology, 1971, University of Tennessee, Chattanooga, TN; MT, Medical Technology, 1972, Georgia State University, Atlanta, GA; Certificate, Medical Technology, 1972, Saint Joseph Infirmary, Atlanta, GA; MMHC, Health Care Management, 2009, Vanderbilt University, Nashville, TN

Annette Billings, MLS (ASCP)
Instructor (Part-time)
Certificate, MLS, 2011, Vanderbilt University Medical Center, Nashville, TN; BS, Biology, 2009, David Lipscomb University, Nashville, TN

Jennifer Blackburn, MLS (ASCP)
Instructor (Part-time)
Certificate, MLS, 2004, Vanderbilt University Medical Center, Nashville, TN; BS, Biology, 1999, Middle Tennessee State University, Murfreesboro, TN

Jerri DeMarco, MT (ASCP)
Instructor (Part-time)
BS, Secondary Education, 1977, University of Tennessee, Martin, Martin, TN

Darla Emberton, MLS (ASCP) [CM]
Instructor (Part-time)
Certificate, MLS, 2013, Vanderbilt University Medical Center, Nashville, TN; BS, Psychology, 2009, Middle Tennessee State University, Murfreesboro, TN

Micky Ezell, MT (ASCP)
Instructor (Part-time)
AAS, Med Tech, 1980, Columbia State Community College, Columbia, TN

Amanda Fultz, MLS (ASCP) [CM]
Instructor (Part-time)
Certificate, MLS, 2014, Vanderbilt University Medical Center, Nashville, TN; BS, Pre-Medical Technology, 2014, Middle Tennessee State University, Murfreesboro, TN; AS, Biology, 2012, Volunteer State Community College, Hendersonville, TN

Sharon Glover, MLS (ASCP)
Instructor (Part-time)
Certificate, 1987, Medical Technology, St. Francis, Memphis, TN; BS, Biology, 1986, Middle Tennessee State University, Murfreesboro, TN

Erika Hall, MLS (ASCP)
Instructor (Part-time)
Certificate, MLS, 2008,Vanderbilt University Medical Center; BS, Biology, 2006, Middle Tennessee State University, Murfreesboro, TN; AAS, Science, 2000, Patrick Henry Community College, Martinsville, VA

Kimberly Klocek, MLS (ASCP)
Instructor (Part-time)
BS, 2007, Medical Technology, Austin Peay State University, Clarksville, TN

Tonya Snyder, MT (ASCP)
Instructor (Part-time)
BS, Medical Technology, 1981, University of Cincinnati, Cincinnati, OH

Jill White-Abell, MLS (ASCP)
Instructor (Part-time)
Certificate in Medical Technology, Lourdes Hospital, Paducah, KY, 1983; BS, Biology, Murray State University, Murray, KY, 1981; Assoc. Degree, Medical Technology, Murray State University, Murray, KY, 1980

Destiny Whitfield, MLS (ASCP) [CM]
Instructor (Part-time)
MS, Clinical Laboratory Sciences, 2011, University of Alabama, Birmingham, Birmingham, AL

Program Advisory Committee

The Program Advisory Committee is composed of representatives from multiple laboratory sections within the VUMC Diagnostic Laboratories, the VUMC Department of Pathology, and the community. Representation includes pathologists, administrators, managers, supervisors, program graduates, and clinical instructors/medical laboratory scientists. The Program Advisory Committee (PAC):

- Provides input into any aspect of the program/curriculum with regard to its current learning outcomes, relevancy, and effectiveness.
- Serves as the admission committee to review and make decisions on student selections or dismissals.
- Reviews any grievances that require resolution. This function activates the ad hoc members.
- Members serve a four-year term, on a rotating basis.

The Program Advisory Committee is composed of the following individuals:

VUMC Representatives

Mary Ann Thompson Arildsen, M.D., Ph.D.
Laboratory Section Medical Director
Director, Hematology

Jennifer Blackburn, MT (ASCP)
Clinical Instructor Representative and Staff Laboratory Scientist
Clinical Instructor, Blood Bank

Tabatha East, MLS (ASCP) [CM]
Supervisor, Microbiology

Bruce Greig, MT (ASCP)
Laboratory Supervisor
Supervisor, Hematopathology

Robert D. Hoffman II, M.D., PhD
Associate Professor of Pathology, Microbiology & Immunology
Vice Chair for Graduate Medical Education
Director, Autopsy Pathology
Director, Residency Training Program

Kara Newton, MLS (ASCP)[CM]
Supervisor, Core Lab

Susan Sefers, MT (ASCP)
Laboratory Director / Manager
Manager, Molecular, Infectious Diseases, and Genetics

Representatives from Other Organizations

Martha Dagen
Assistant Laboratory Director, Williamson Medical Center

Dr. Pamala Fair, PhD
Medical Laboratory Technology Program Director, Fortis Institute

Kimberly Hammers
Medical Laboratory Technology Education Coordinator, Volunteer State Community College

Cody Rowlett
Forensic Scientist, Tennessee Bureau of Investigations

Ad Hoc Advisory Board Members
Judy Davis, VUMC Diagnostic Laboratories, Interim Executive Administrative Co-Director
Martha Miers, MS, MBA, MT (ASCP), VUMC Dept. of Pathology Administrative Director
Amy Montgomery, MT, VUMC Clinical Instructor, Microbiology; Staff Technologist/Clinical Instructor
Sam Santoro, M.D., PhD, Chair, VUMC Department of Pathology, Micro & Immunology

2018-2019 Program Academic Calendar

06/04/2018	Start Date
09/10/2018 - 09/14/2018	Fall Break
11/29/2018 - 11/30/2018	Thanksgiving Break
12/24/2018 - 01/04/2019	Christmas Break
Variable 5-day period*	Spring Break
05/27/2019	Memorial Day - No Rotations
07/01/2019	Graduation

*Due to clinical rotation schedules, each student has a different spring break schedule. Students are notified of their spring break dates in November of the prior year.

Admission

Admission Requirements
VUMC requires that all applicants to the allied health certificate programs must have a high school diploma, GED, or recognized equivalent. A high school diploma or recognized equivalent. Further, VUMC allows an applicant to submit a copy of a post-secondary degree (i.e., Associate's, Bachelor's or Master's) in lieu of a copy of the high school diploma.:

- Bachelor's degree from an accredited college or university

OR

- Eligibility to receive the bachelor's degree from one of the program's academic affiliated schools upon successful completion of the clinical year in the VUMC Medical Laboratory Science program. Individuals who are considered eligible are required to have completed a minimum of three years (90 semester or 136 quarter hours) of college credits at an accredited college or university. The three-year applicant must submit verification that all academic requirements for graduation have been met. After successful completion of the clinical year (that is, the VUMC Medical Laboratory Science Program), the student will be awarded a baccalaureate degree from the accredited college or university and receive a certificate of completion from Vanderbilt University Medical Center Programs in Allied Health.

Out of the 90 total semester hours (136 quarter hours) required for acceptance into the program, a minimum number of classes and hours* are required in the following concentrations:

- A minimum of 16 semester hours or 24 quarter hours of Chemistry
  1. Required: Organic or Biochemistry
  2. Recommended: Quantitative Analytical Chemistry, Clinical Instrumentation
- A minimum of 16 semester or 24 quarter hours of Biological Sciences
  1. Required: Microbiology, Immunology (these are separate courses)
  2. Recommended: Genetics, Anatomy & Physiology
- A minimum of 3 semester hours or 4.5 quarter hour of College Mathematics (at College Algebra level or higher)
- Recommended: Statistics, Physics, and Computer courses
- A minimum overall and science academic average of 2.5 (4.0 scale)

*Individuals whose minimum requirement coursework was completed seven or more years prior to applying to the MLS Program are requested to update their coursework in Immunology, Microbiology, Genetics and Organic Chemistry or Biochemistry.

All prerequisite courses must be successfully completed prior to the beginning of the MLS program in order to be considered for admission. The content of courses must be applicable towards a major in that area or in medical laboratory science. Survey courses are not accepted toward the requirements.

Physical Requirements
To ensure they are able to perform essential job functions, candidates for admission must also possess the following:

- The physical capability and manual dexterity required to perform phlebotomy and routine laboratory procedures. These include, but are not limited to, repetitive hand motions, differentiation of colors for interpretation of color reactions and cellular morphology.
- The physical ability to work with laboratory computers and communicate effectively with medical technologists, patients, physicians and other health care professionals. This ability is assessed during the admission process through references provided by the student and through the interview process.

Application Requirements and Procedure
Individuals from any accredited college or University who meet the minimum academic requirements are eligible for admission into the program. Applications should be submitted prior to November 1 each year to ensure sufficient time for processing and for scheduling of an interview. Late applications will be accepted as space is available.

Applicants must submit the following:

- Completed program application (which is available on the VUMC Medical Laboratory Science Program website).
- Official transcripts from all universities and colleges attended.
- A list of courses in progress or to be completed prior to the June admission date.
- Three references, with at least two from current or previous faculty, and one from an employer or individual familiar with the applicant's character. These should be submitted on the evaluation form (available with the application), but a personalized letter of reference may be included as well.

Completed applications and reference evaluation letters should be mailed to the program to:
Medical Laboratory Science Program
Vanderbilt University Medical Center
4605 TVC
1301 Medical Center Drive
Nashville, TN 37232-5310

Prospective students and applicants may contact the program director, Holly Covas, by email at holly.covas@vumc.org or by phone at 615-322-8681. The application deadline for all required documents is November 1st each year.

Admission Interviews
Applicants may be invited to interview with the program. Interview dates are based on the availability of both the student and program director. Interviews include:

- Interview and program overview with the program director.
- Interviews with one or two additional faculty members.
- A tour of the diagnostic laboratories.
- An opportunity to talk with current students, if available.

During the interview, the details of the program and the selection process are discussed in detail. Applicants are encouraged to ask questions.

Applicant Selection and Acceptance
The Program Advisory Committee makes offers of admission to the program in February of each year. All participants are evaluated on an individual basis, with selection based on the following criteria:

- Cumulative grade point average (GPA)
- Grade point average in science coursework
- Letters of recommendation or pre-professional evaluation
- Interviews

The selection process includes a review of each applicant on the basis of academic achievement, work experience, interest and knowledge of the medical laboratory science profession, career goals, and personal attributes that would contribute to the success of the applicant in the program and as a medical laboratory scientist. These attributes include the ability to make decisions based on sound knowledge, strong ethical and moral attitudes, and a commitment to quality patient care.

Academic Program

Curriculum Sequence/Program Delivery
Classes begin the first week of June and continue until the end of June the following year. Orientation is held during the first week of class and provides an opportunity for students to become acquainted with fellow students and faculty members. Course work during this week consists of an introduction and review of basic laboratory operations and skills.

The academic year is divided into two semesters/terms, each approximately six months long.

1. First semester/term: This semester is comprised of the lecture/student laboratory portion of the program. It begins in June and is completed in mid-December. Coursework completed during this portion of the program takes place in a classroom setting, and students attend lectures and complete student laboratory assignments. Students complete out-of-class assignments such as study questions, case studies, and other types of homework, as well as in-class assessments of quizzes, exams, and laboratory practicals. Students also give presentations based on review material and case studies.
2. Second semester/term: The second semester runs from January through the end of June, and includes the clinical practica (a.k.a., clinical rotations) in each department of the clinical and diagnostic laboratories. During this time, students work alongside medical laboratory scientists to learn how to operate the instrumentation and interpret results. Students complete case studies, checklists, study questions, unknown patient samples, research papers, and written assessments.

Students are required to be present on a full time basis throughout the year of training. Classes in the first term run from 8:30 a.m. to 4:30 p.m. Monday through Friday. Clinical rotation hours (during the second term) vary according to individual laboratory sections and include some rotation time during evening and night shifts.

Course	Lecture	Lab	Practicum / Clinical	Total Hours
Chemistry	262.5	0	200.0	462.5
Urinalysis/Body Fluids	22.5	30.0	80.0	132.5
Hematology	105.5	52.0	120.0	277.50
Hemostasis & Thrombosis	35.0	0	40.0	75.0
Blood Bank	70.0	35.0	160.0	265.0

Immunology	35.0	0.0	40.0	75.0
Bacteriology/Virology	143.0	32.0	200.0	375.0
Mycology	9.0	12.0	8.0	29.0
Parasitology	10.0	25.0		35.0
Orientation	24.0	8.0		32.0
Seminar	67.0	8.0		75.00
Phlebotomy	2.0	4.5	28.0	34.5
Molecular Diagnostics	31.5	0	51.5	83.0
Totals	817.00	206.50	927.50	1951.00

Course Descriptions

Orientation
This course is an introduction to the theory and basic skills that contribute to the student's ability to perform effectively and efficiently within the laboratory environment. Sessions are diverse and include topics on lab math, quality assurance, quality control, and laboratory safety. Orientation continues with the clinical practicum.

Blood Bank (Immunohematology)
This course is the study of blood group antigens and antibodies and their significance in transfusion therapy. It includes donor selection, laboratory procedures for processing and selecting blood products, identification of blood group antigens and antibodies, blood storage procedures, quality control, transfusion practices and related complications, and component therapy.

Clinical Chemistry
This course is a study of the biochemical constituents of body fluids, their physiological functions and alterations in disease states. Emphasis is placed on the analytical methods of the laboratory. This includes the study of the principles, operation and maintenance of laboratory instrumentation, the use of computer technology, quality control and quality assurance tools. Primary areas of instruction include routine clinical chemistry testing, endocrinology, nutrition testing and toxicology.

Hematology
This course involves the study of maturation, morphology and function of blood cells and their role in disease processes. Emphasis is placed on both manual and automated laboratory procedures, blood cell identification, and the relationship of cells with specific diseases such as anemia, leukemia, lymphomas and reactive processes.

Hemostasis and Thrombosis (Coagulation)
This course is a study of the interaction of blood vessels, platelets, coagulation factors, and fibrinolytic system. Emphasis is placed on the laboratory procedures used in the diagnosis and management of various bleeding and thrombotic disorders.

Immunology
This course is a study of the immunological response in infections and autoimmune diseases, the characterization of lymphocyte populations in neoplasms, and abnormal immunologic responses.

Microbiology (including Bacteriology, Mycology and Virology)

This course is the study of bacteria, fungi, and viruses causing disease in man. The course includes the laboratory identification of bacteria, fungi and viruses using conventional methods as well as rapid systems, antimicrobial susceptibility testing and evaluation of clinical specimens for evidence of infection.

Molecular Diagnostics
This course is the study of human and infectious agents' DNA, RNA, and chromosomes as they relate to disease. Emphasis is placed on basic molecular theory, laboratory procedures including PCR, sequencing, capillary electrophoresis, gel electrophoresis, FISH, Southern blotting and other methods and the correlation of test results to disease states.

Parasitology
This course is the study of life cycles and diagnostic stages of clinically significant parasites. Laboratory procedures for detecting and differentiating parasites are emphasized.

Phlebotomy
This course is the study of specimen collection, focusing mainly on blood collection from veins. Following classroom instruction as part of clinical orientation, students will participate in a three week phlebotomy rotation. A full week of phlebotomy training is at out-patient drawing stations. Following this week, students do two weeks of early morning draws with experienced phlebotomists before reporting to their lab rotation. The Phlebotomy rotation will also include several afternoons in the Specimen Receiving area.

Seminar
A variety of topics are covered in this course, including management and supervisory skills, laboratory operations, educational methodologies, research skills, regulatory issues, quality assurance tools, special topics and reviews of technical material.
Urinalysis & Body Fluids
This course is the study of physical, chemical, and microscopic properties of body fluids other than blood or serum. Emphasis is placed on laboratory procedures, morphological findings, and the correlation of test results to disease states.

Student Didactic and Laboratory: June to December
Didactic and Laboratory consists of two class periods each day including lectures and laboratory work. Courses are taught on a rotational schedule and include:

- Blood Banking (Immunohematology)
- Clinical Chemistry and Instrumentation
- Hematology
- Hemostasis and Thrombosis
- Immunopathology
- Bacteriology
- Virology
- Mycology
- Parasitology
- Seminar
- Urinalysis and Body Fluids
- Molecular Diagnostics

Clinical Laboratory Rotations: January to June

- Rotations consist of eight hour days spent in specific clinical laboratory areas
- Students are evaluated on their abilities in a clinical setting and on correlation of laboratory results with disease states

- Rotations include: Orientation, Core Lab (Chemistry, Hematology, Hemostasis & Thrombosis, Urinalysis & Body Fluids), Microbiology (including Mycology and Virology), Blood Bank, Immunopathology, Toxicology and Esoteric Chemistry, Molecular Infectious Diseases, Molecular Genetics, Phlebotomy
- In addition, a seminar course will introduce students to supervisory and management skills as well as special interest topics such as molecular diagnostics, Point of-Care Technology, and regulatory compliance requirements.

Student Assessment

Grading Policies

Definitions:

- *Course:* Any portion of the program that includes instruction, has its own syllabus with grading criteria, and is identified as a discrete unit of instruction on the program calendar.
- *Transcript grade:* Several related courses may be combined for one transcript grade. Individual courses are co-requisites for the final transcript grade. When evaluating acceptable academic progress in the first semester, course grades are considered independently of the final transcript grade.
- *Practicum:* Also called rotations. This portion of the program involves time spent in the patient care laboratory and typically takes place during the second semester.

The grading scale is as follows:

90 - 100%	=	A
80 - 89%	=	B
75 -79%	=	C
Below 75%	=	F

- Lecture/Student Laboratory (June - December): Students must attain a minimum final grade of 75% in each course. Courses that include both a lecture and student laboratory are typically weighted as follows: Lecture 70% / Laboratory 30%; Parasitology does not have a clinical practicum component so the student lab grade constitutes the transcript grade.
- Patient Laboratory / Clinical Practicum (January - June): The clinical practicum grade consists of three components:
    - Technical/Performance
    - Theory
    - Behavioral Evaluation (minimum of 10% of total grade)

A minimum grade of 75% is required for both the technical and theory portions of the practicum. A minimum grade of 75% is required for the behavioral evaluation. A grade of less than 75% on the behavioral evaluation will require the student to meet with the program director. Grades lower than 75% in any area (including behavioral evaluation) may result in SAP Warning, academic probation and/or dismissal from the program, as outlined in this catalog under the policies of the VUMC Center for Programs in Allied Health.

- Exit Exam: Students must pass a final comprehensive exam at the end of the program year. Students have three attempts to pass the exam with a minimum passing score of at least 75%.

Transcript Grades

Upon completion of the year of training, an official transcript is sent to the State of Tennessee Medical Laboratory Board, the American Society of Clinical Pathology Board of Certification or other certification organization, and, for 3+1 students, the affiliated university or college granting the baccalaureate degree. The following breakdown groups the courses, but may be altered upon request by

the academic affiliate. Final transcript grades are calculated using the co-requisite course grades. The most common co-requisite course weighting is Student Lecture/Laboratory course grade (50%) and the Clinical Practicum course grade (50%). However, alternative co-requisite course weightings may occur and are given in related course syllabi.

Grading
Transcript grades include the final grade received during the lecture/student laboratory and the corresponding clinical practicum for the particular course. Generally, the lecture/student laboratory and clinical practicum share equal weight for the final transcript grade (i.e., each portion is weighted at 50% so the average of the two portions is the final transcript grade). Deviations from this general weighting occasionally occur if there is a large discrepancy in the length of time between the course lecture and practicum portions. Such a deviation will be noted in the course syllabus and is designed to evenly distribute the weight, based on the time commitment required of the student in each portion. Individual courses are co-requisites for the final transcript grade. When evaluating Satisfactory Academic Progress, course grades are considered independently of the final transcript grade.

Satisfactory Academic Progress

Students are required to maintain established program standards of competence and knowledge. An overall grade of 75% in each course, including the lecture/student laboratory and clinical practicum, is required for the successful completion of the course. Students who do not meet this requirement are removed from Satisfactory Academic Progress status and subject to a range of academic remedial actions, as outlined in this catalog under the policies of the VUMC Center for Programs in Allied Health.

Advanced placement credits are not allowed. The program and all related courses must be completed in their entirety for a transcript to be created and given. Students must successfully complete all components of the program within the 13 months of the program and in the order presented. The Program Advisory Committee reserves the right to extend a student's training to make up for a deficit in a single course, but this remediation is not to extend training more than five (5) months from the end of the program year.

Graduation Requirements

- Students must achieve an overall minimal grade of 75% in all courses.
- Students must achieve a minimum of 75% on all Behavioral Evaluations.
- Students must pass their final comprehensive exam at the end of the year with a 75% or higher.
- Students must pay tuition and fees in full.

Upon successful completion of the program, students are eligible to sit for exams to receive national certification. Upon receipt of national certification by a recognized national agency, students become eligible for licensure from the State of Tennessee as a Medical Laboratory Technologist. Successful completion of the Program is not contingent upon passing of any national certification exam.

Student Conduct

In addition to the VUMC Code of Conduct, students in the Medical Laboratory Science Program are bound by standards of conduct specific to their profession. Adherence to the VUMC Code of Conduct and the ASCLS Code of Ethics is required of students at all times.

ASCLS Code of Ethics
This code of ethics by the American Society for Clinical Laboratory Science (ASCLS) has been adopted as an official part of the program as well as the profession. Students enrolled in the program are expected to abide by this code and the following regulations.

"As a Medical Laboratory Professional, I pledge to uphold my duty to Patients, the Profession and Society by:

- Placing patients' welfare above my own needs and desires.
- Ensuring that each patient receives care that is safe, effective, efficient, timely, equitable and patient-centered.
- Maintaining the dignity and respect for my profession.
- Promoting the advancement of my profession.
- Ensuring collegial relationships within the clinical laboratory and with other patient care providers.
- Improving access to laboratory services.
- Promoting equitable distribution of healthcare resources.
- Complying with laws and regulations and protecting patients from others' incompetent or illegal practice
- Changing conditions where necessary to advance the best interests of patients."

-- ASCLS Code of Ethics -- http://www.ascls.org/about-us/code-of-ethics

Equipment List

Agglutination viewers
Arkray Aution Max AX-4280
Bacti-Cinerators
Beckman Table-top Centrifuge
Differential counters
Helena Laboratories Cascade M
Hemocytometers
Iris IQ200 Elite
Marsters Tube Incubator
Microhematocrit centrifuge
Micro-Pipetors
Microscopes
Miscellaneous lab supplies such as timers, hand counters, water baths, centrifuges, vortexes and tube mixers
Phlebotomy Arms
Refractometers
Sedimentation racks
Serofuges
Siemens PFA-100
Volumetric and serological pipets
VWR Scientific B acteriology incubator and cabinet

This catalog contains only a summary of program policies and procedures. Students should refer to the program/student handbook for additional information.

NEURODIAGNOSTIC TECHNOLOGY (NDT)

Program Description

Neurodiagnostic Technology is the allied health care profession that records, monitors, and analyzes nervous system function to promote the effective treatment of pathologic conditions. Technologists record electrical activity arising from the brain, spinal cord, peripheral nerves, somatosensory or motor nerve systems using a variety of techniques and instruments. Technologists prepare data and documentation for interpretation by a physician. Considerable individual initiative, reasoning, skill, and judgment are all expected of the neurodiagnostic professional. The most common neurodiagnostic procedures are the Electroencephalogram (EEG), Intraoperative Neuromonitoring (IONM), Long Term Monitoring (LTM), Polysomnogram (PSG), Evoked Potentials (EP), and Nerve Conduction Studies (NCS).

As an allied health program at Vanderbilt University Medical Center (VUMC), the NDT program has the resources to offer a wide range of educational opportunities in both didactic and clinical experiences. These opportunities include lectures by the medical faculty – a diverse and collaborative group – from the Department of Neurology, lectures by experts from related fields, and courses developed by ASET-The Neurodiagnostic Society. This variety is important due to the rapid changes and technological advances that occur in the field.

The foundation of the VUMC Program in Neurodiagnostic Technology curriculum the courses developed by ASET, the national society representing the neurodiagnostic technology profession. Complete information about the NDT program's curriculum is available on the NDT Program website, at *https://medschool.vanderbilt.edu/allied-health/ndt.*

Program Length

The Neurodiagnostic Technology program includes 2,028 hours of clinical and didactic training. Cohorts typically start in early September and continue for 71 weeks of full-time training, graduating in March of the second year of training.

Certification/Credentialing

Graduates from the VUMC Neurodiagnostic Technology program receive a VUMC Certificate in Neurodiagnostic Technology. Upon graduation, students will have demonstrated and completed all clinical and academic competencies required for eligibility to take the EEG Examination administered by ABRET Neurodiagnostic Credentialing and Accreditation.

Delivery Method: Residential

Mission, Credo and Goals

The program is dedicated to producing competent technologists who exemplify the Credo Behaviors of Vanderbilt University Medical Center, by making those we serve our highest priority, respecting privacy and confidentiality, communicating effectively, acting professionally, having a sense of ownership and being committed to colleagues.

The mission of the VUMC Neurodiagnostic Technology Program is to uphold and contribute to Vanderbilt University Medical Center's established reputation of excellence in patient care and education, by educating students who build excellent skills, develop a sense of ownership and become lifelong learners.

Goals and Objectives

The goals of the Neurodiagnostic Technology program at Vanderbilt University Medical Center are in keeping with the requirements of the profession:

1. To provide learning opportunities that will stimulate individual initiative in the pursuit of quality.
2. To prepare students for entry level positions as electroencephalographic technologists who are able to meet the required competencies of the profession as published by ASET, including minimum competencies in evoked potentials, nerve conductions, polysomnography and intraoperative monitoring.
3. To prepare the student to pass the national registry exam in EEG technology given by ABRET- Neurodiagnostic Credentialing and Accreditation Board.
4. To promote professional growth by providing exposure to activities in state and national NDT societies.
5. To provide students with a broad range of resources by involving both medical and nonmedical professionals in our lecture series.
6. To engage students in a variety of activities serving the public, employers and physicians.

Program Staff and Faculty

The program officials include a Program Director, Medical Director, and Clinical Coordinators, all of whom are experts in the field.

- Kyle Dean, R.EEG T., CNIM, BA, Program Director (Full- time)
- George R. (Trey) Lee, M.D., Medical Director
- Bassel Abou-Khalil, M.D., Co-Medical Director

Program Advisory Committee

The NDT Advisory Committee assists program administration and faculty in fulfilling the program's educational objectives. The NDT Advisory Committee addresses a broad range of topics that include the program's mission and objectives; curriculum; outcomes; program strength and weaknesses in preparing graduates; current and projected community needs for graduates in the field; annual evaluation of program effectiveness; and student, graduate, clinical affiliate, and employer feedback. The membership of the NDT Advisory Committee is:

Kyle Dean, Program Director
George R. (Trey) Lee, Medical Director
Bassel Abou-Khalil, Co-Medical Director
Guy Bates
Chris Clark
Eli Dwyer
Marcia Ferguson
Cary Fu
David Kennedy
William Levis
Katherine Ladd Mayers
Hasan Sonmezturk
Petrice Sprouse
Jessica Thomas
Candace Tillquist
Julie Trott

Admission Committee
The NDT Program Admission Committee is comprised of individuals from the NDT Program Advisory Committee. This group reviews and discusses applications and interview materials and makes admission determinations. The Program Director participates in this process.

Programmatic Accreditation/Approvals

The Vanderbilt University Medical Center Neurodiagnostic Technology program is programmatically accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Committee on Accreditation for Neurodiagnostic Technology, based on a programmatic review and site visit. Recognition by CAAHEP qualifies the program's graduates for eligibility to apply for and take the EEG Examination administered by the ABRET Neurodiagnostic Credentialing and Accreditation.

CAAHEP:
Commission on Accreditation of Allied Health Education Programs
25400 U.S. Highway 19 North, Suite 158
Clearwater, FL 33763
Phone: 727-210-2350
Fax: 727-210-2354
www.caahep.org

ABRET:
ABRET Executive Office
2908 Greenbriar Drive, Suite A Springfield, IL 62704
Phone: 217.726.7980
Fax: 217.726.7989

Program Graduation Requirements

In order to graduate from the VUMC Neurodiagnostic Technology Program, students must do the following:

- Pass all courses/clinical rotations in the curriculum;
- Score 70% or higher on all final exams; and
- Complete 100 EEGs.

Academic Calendar – 2017-2019 Program Calendar

09/05/2017	Start Date
11/23-11/24/2017	Thanksgiving Break
12/20/2017-1/02/2018	Winter Break
05/28/2018	Memorial Day Holiday
07/04/2018	Independence Day Holiday
09/03/2018	Labor Day Holiday
11/22-11/23/2018	Thanksgiving Break
12/20/2018-01/02/2019	Winter Break
March 2019 (day TBD)	Graduation

Admission Requirements

VUMC requires that all applicants to the allied health certificate programs must have a high school diploma, GED, or recognized equivalent. A high school diploma or recognized equivalent comply with the THEC requirement. Further, VUMC allows an applicant to submit a copy of a post-secondary degree (i.e., Associate's, Bachelor's or Master's) in lieu of a copy of the high school diploma.

For the Neurodiagnostic Technology program, the admissions process screens and evaluates each applicant's credentials before a decision for acceptance or rejection is made. Admission requirements for the NDT Program include:

- Entering class of 2018: Applicants are required to have, at minimum, an Associate's degree with some courses in biology and chemistry as the minimum educational background requirement.

To help ensure the likelihood of student success, the Admissions Committee has developed the following admission procedures to determine if the applicant's qualifications and background complement institutional and curricular objectives.

The Program Advisory Committee will offer admission to the program once a year. All applicants are evaluated on an individual basis with selection based on the following criteria:

- Transcripts
- Letters of Recommendation
- Interview with Program Director
- Panel Interview

After acceptance into the program, applicants must submit:

- Up-to-date immunization record (see institutional requirements as listed in the institutional section of this catalog)
- Evidence of health insurance
- Background check

Applicants to the Neurodiagnostic Technology program are beyond the age of compulsory institution attendance in Tennessee and can be reasonably expected to benefit from the training offered by the institution. Vanderbilt University Medical Center does not admit Ability-to-Benefit students.

Physical Activity Standards
To meet the technical standards, applicants for the program must have adequate sight to read computer and analog recordings, adequate hearing to be able to communicate with patients and healthcare staff, and sufficient manual dexterity to perform procedures safely with accuracy and precision. The Neurodiagnostic Technology program is open to all qualified persons, without discrimination with respect to race, color, age, sex, religion, national origin, disability, sexual orientation or veteran status.

Application Procedure

Individuals who meet the minimum academic requirements are eligible for admission into the program.

Application Requirements
Applicants must submit by mail the following items:

- Completed application (available on the VUMC Neurodiagnostic Technology Program website)
- Application fee
- Official transcripts from institutions of higher learning
- Three letters of recommendation from employers or instructors

Detailed information about the program and the application to apply is available on the VUMC Neurodiagnostic Technology website. Completed applications, transcripts, and letters of recommendation should be mailed to the program at: Center for Programs in Allied Health, NDT Program, Attn: Kristen Smith, 1301 Medical Center Drive B-802, The Vanderbilt Clinic, Nashville, TN, 37232-5510.

Interview
Applicants may be invited to take part in on-campus interviews. All invited candidates take part in two interviews:

1. Interview with the Program Director
2. Interview with a panel that includes the Program Director, Medical Director, one of the Allied Health Program Directors, and one of the Neurodiagnostic Supervisors.

Selection and Acceptance
The Program Advisory Committee offers admission to the program once a year, in the fall. All participants are evaluated on an individual basis with selection based on the following criteria:

- Transcripts
- Letters of Recommendation
- Interview with Program Director
- Panel Interview

Academic Program

Curriculum Sequence/Program Delivery
Class days are Monday through Friday from 8 a.m. until 3p.m, for this 71-week program.

Course Number	Course	Lecture Hours	Lab Hours	Clinical Hours	Program Total
EEG 200*	Fundamentals of Neuroanatomy	48			
EEG 201*	Testing Procedures and Terminology	30			
EEG 202*	Electrode Placement and Application Methods	30			
EEG 203*	Fundamentals of EEG and Patient Care	30			
EEG 204*	Digital EEG Concepts and Electrical Safety	30			
EEG 205*	Normal Adult EEG, Normal Variants and Drug Effects	30			
EEG 206*	Instrumentation Part I-Differential Amplifiers, Montage Design and Filters	30			
EEG 207*	Instrumentation Part 2-Guidelines, Polarity, Technical Impressions	30			
EEG 208*	Artifacts Identification and Troubleshooting	30			
EEG 209*	EEG in Epilepsy	30			
EEG 210*	EEG in Neurological Disorders	30			
EEG 211*	EEG in Pediatric Patients and Neonates	30			
Clinic I	EEG Lab		360		
Clinic II	EEG Clinical Practicum			1050	
Introductory I	Introduction to Modalities: Evoked Potentials, Nerve Conduction Studies, Long-Term Monitoring, Intraoperative Monitoring and Polysomnography		240		
	Totals:	**378**	**600**	**1050**	**2,02**

* Starred EEG courses listed above are contained in the ASET online education portal and are licensed for the exclusive use of registered participants. Students in the VUMC NDT program are registered participants but are not authorized to resale, rebroadcast, duplicate, or share distribution of the

handouts, presentation support materials, recordings, or any other content contained herein. For additional information, please contact the ASET office via email at: info@aset.org

Course Descriptions
Course descriptions are provided by ASET and are the intellectual property of ASET-The Neurodiagnostic Society.

EEG 200 Fundamentals of Neuroanatomy
This course is an introduction to the structures and functions of the Nervous System. Course content includes basic terms related to the anatomical position, direction, body regions and body planes. The bony structures of the skull are presented as well as specific structures and functions of the Nervous System including the brain, brainstem, spinal cord, cranial nerves and blood supply. An introduction to the neurological exam is also included. Topics are meant to provide basic knowledge needed to carry out EEG procedures and will create a solid foundation for advancing to more in-depth Neuroanatomy courses.

EEG 201 Testing Procedures and Terminology
This course introduces learners to the field of Neurodiagnostic Technology by providing descriptions of Neurodiagnostic testing procedures and describing the profession's Scope of Practice. The Scope of Practice specifies the role of ND technologists as members of the health care team and outlines core responsibilities. The terminology presented in this course is meant to provide a solid foundation for building a medical vocabulary and includes assignments and handouts for general terms plus those related to patient charting, signs, symptoms, accepted abbreviations, infection control, neurological diseases, and other types of diagnostic testing. Specific terms used to describe EEG waveforms and patterns will also be a major focus.

EEG 202 Electrodes, Electrode Placement and Application Methods
This course provides information on how to accurately measure and apply electrodes according to the International 10-20 System of Electrode Placement. It introduces learners to electrode nomenclature, electrode types, and their composition, as well as appropriate electrode disinfection methods. Steps for electrode application are described and illustrated with consideration to skin preparation, impedances, skin safety, and placement modification needs. Proven techniques to achieve secure and accurate electrode placement are presented using collodion and paste application methods. Pointers on how to avoid common errors are addressed along with steps to achieve success with pediatric and neonatal populations.

EEG 203 Fundamentals of EEG and Patient Care
This course explores the important discoveries and historical contributions that led to the development and use of EEG as an important diagnostic tool. Other topics relate to fundamental patient care for the purpose of promoting patient safety and professional competence. Professional competence is addressed using the ASET National Competency Skill Standards for Performing an Electroencephalogram. Learners are also presented with ways to establish professional rapport, maintain patient privacy standards, and use appropriate steps to identify and address the physical needs of the patient. This patient-centered focus includes understanding the Neurodiagnostic professional's role in the healthcare delivery system, as well as responsibilities relating to patient safety practices, such as like infection prevention, seizure precautions, /first aid, and emergency preparedness. Vital signs are discussed in order to aid the learner in identifying a patient in distress or in need of medical attention.

EEG 204 Digital EEG Concepts and Electrical Safety
The primary purpose of this course is to familiarize Neurodiagnostic professionals with the basic principles of electricity and electrical safety. Information is presented with an emphasis on profession-specific risks related to current flow, grounding, and factors contributing to electrical injury. This course will also introduce the learner to key concepts of digital technology and how digital EEG instruments record and

display EEG and other physiological signals. The learner will become familiar with common computer terminology, as well as features and settings specific to Neurodiagnostic equipment.

EEG 205 Normal Adult EEG, Normal Variants and Drug Effects
This course explores the neurophysiological basis of the EEG. Learners are presented with information about neurons and how these specialized cells generate brain waves. Normal EEG patterns found in the waking and sleep states are identified. Assignments focus on descriptive EEG terms, waveform descriptions, and features that promote the visual analysis of EEG. Information related to medication effects on the EEG is also provided. Normal EEG variants are a key component to this course, such as POSTS, Mu, Lambda, Phantom Spike & Wave, etc. Learners will be assigned work that will enhance their pattern recognition skills.

EEG 206 Instrumentation Part I-Differential amplifiers, Montage Design and Filters
This course provides a comprehensive foundation in subjects related to the EEG instrument. Lessons include topics on basic electronic components of the electroencephalograph. Learners will gain an understanding about the appropriate use of amplifier settings, such as filters, sensitivity, and chart speeds, to refine the EEG recording. Various types of montages are described, as well as calibration methods, system and other reference selections, and permissible post acquisition setting changes. A brief introduction to polarity is provided.

EEG 207 Instrumentation Part 2- Guidelines, Polarity, Activation Procedures, Waveform Analysis
This course will familiarize the technologist with technical skills related to waveform analysis and polarity. Instrumentation topics will be further explored to include techniques related to improving recording quality, such as recording annotations, considerations for performing activation procedures (hyperventilation & photic stimulation), as well as challenges to bedside and Electrocerebral Inactivity (ECI) recordings. Topics related to daily lab management are also introduced.

EEG 208 Artifacts Identification and Troubleshooting
This course is designed to provide skills in recognizing physiological and nonphysiological artifacts. Samples of both common and unusual artifacts seen in EEG recordings are provided. There is a focus on troubleshooting ways to eliminate the source artifact or place monitors to help decipher artifacts from cerebral activity. A brief review on impedance and common mode rejection (CMR) is provided, as well as on the role of these factors in the presence and elimination of artifacts is included.

EEG 209 EEG in Epilepsy
This course is designed to provide the skills in recognizing epileptiform EEG patterns associated with clinical and subclinical seizures. The resources will provide learners with a thorough understanding of the International Classification of Seizures and information about clinical manifestations and drug and other treatments.

EEG 210 EEG in Neurological Disorders
The goal of this course is to familiarize Neurodiagnostic professionals with the diagnostic process used by physicians to evaluate patients with neurological disorders. This includes common signs and symptoms and EEG patterns associated with neurological disorders. Other types of diagnostic procedures will also be presented.

EEG 211 EEG in Pediatric Patients and Neonates
The goal of this course is to familiarize the Neurodiagnostic technologist with best methods for performing neonatal and pediatric EEG procedures. Topics include electrode placement (EEG and other physiological variables) and age-appropriate recording methods. Terms used to describe the EEG of children and neonates, as well as ways to recognize specific normal and abnormal pediatric EEG patterns, is a major focus.

CLINIC I EEG Lab
In this course the program director demonstrates the 10/20 system and students then practice the system on mannequin heads. Students progress to practicing head measurement on each other.
Students then learn how to apply electrodes and how to record EEG data.

CLINIC II EEG Clinical Practicum
During the clinical practicum course, students are ready to begin performing EEGs on patients. They are introduced to the Neurodiagnostic Department's protocols and allowed to shadow an EEG tech during the first two weeks. Students then may start measuring patient heads, applying electrodes and collecting the EEG data under the supervision of a tech preceptor.

INTRODUCTORY I Introductory Courses in EP, NCS, LTM, IOM and PSG
The introductory courses are designed to provide the basic understanding of additional NDT modalities. Students gain an introductory level of competence but will not have the knowledge and skills needed to perform Evoked Potentials, Polysomnography, Nerve Conduction Studies, Intraoperative Monitoring or Long Term Monitoring. Graduates of the program will need to pursue additional study in order to become competent to perform on an advanced level. Students who complete the EEG competencies early may request additional time in any of the other modalities to gain additional knowledge.

Grading and Satisfactory Academic Progress (SAP)

Students in the Neurodiagnostic Technology program at Vanderbilt University Medical Center are apprised of their academic status throughout each course through continuous evaluation and review of examination results with the instructor. The standards for SAP related to each element of the curriculum are as follows:

- In the didactic courses (EEG 200-211), students are required to successfully complete all exams with a score of 70% or higher in order to maintain SAP.
- Introductory Courses in EP, NCS, LTM, IOM and PSG are each evaluated by final exams. The exam for each modality must be passed with a score of 70%.
- Clinical rotation:
    - Students must pass their clinical rotation with a 75% or higher average.
    - Students are expected to complete a total of 100 EEGs during their clinical rotation, 70 of which must be graded with "acceptable" performance.
    - Pass evaluations in technical descriptions and professional behavior
    - Complete required technical worksheets
    - Students must pass a head measurement section (evaluated on a pass/fail basis) utilizing the scoring system developed by ABRET-American Board of Registration of EEG and Evoked Potential Technologists. The student is expected to completely measure a mannequin head and apply all required electrodes within one hour with no differences greater than 1.0 centimeters.
    - After completing the clinical practicum students must pass a final examination (proctored EEG 212 exam).
- Students must maintain levels of attendance and program participation as published in the Program Handbook.

The student may appeal any grade(s) received from the automatic ASET scoring system to the Program Director. The Program Director will consult with the ASET Online Education Coordinator to verify the accuracy of the grade given. The student may appeal any grade from the introductory course finals to the Program Director.

Student Conduct

In addition to the VUMC Code of Conduct, students in the Neurodiagnostic Technology Program are bound by standards of conduct specific to their profession. Adherence to the VUMC Code of Conduct and the ASET Statement of Professional of Ethics is required of students at all times.

ASET Statement of Professional Ethics

Neurodiagnostic technologists, as members of an allied health profession, must strive as individuals and as a group to maintain the highest of professional and ethical standards. The following statements are standards to guide Neurodiagnostic technologists in their professional activities. These standards are not laws but codes that are fundamental to responsible delivery of patient care.

In performing their professional activities, Neurodiagnostic technologists shall:

- Act in the best interest of the patient, keeping the health and safety of the patient in mind at all times.
- Obtain appropriate education and expand their knowledge and skills by actively pursuing continuing education opportunities and committing themselves to life-long learning.
- Perform only those procedures or functions in which they are independently competent and that are within their scope of practice.
- Maintain professional integrity by avoiding circumstances where there may be compromise of professional conduct or where incidence of fraud, deception, and conflict of interest may arise.
- Respect human dignity by providing services and interacting without discrimination with regard to race, culture, sex, age, disability, religious belief, socio-economic status, disease process, or any other basis.
- Maintain confidentiality and divulge no information that is of a sensitive nature relating to the patient, family, or situation, disclosing information only according to policy or as required by law.
- Assess situations, exercise care and discretion, exhibit judgment, and accept responsibility for professional decisions, while providing the highest quality patient care.
- Establish collaborative relationships with colleagues as members of the healthcare team, support the Neurodiagnostic profession, and maintain a positive public image.

Additionally it is recommended but not required, that all technologists demonstrate and maintain their professional competence by completing national examinations for registration or certification and maintain their professional credentials as required.

Adopted by ASET's Board of Trustees August, 1999. Modified August 2003.

American Society of Neurodiagnostic Technologists

The professional society plays an important role in the life of the student and practitioner in any profession. Students in the VUMC Neurodiagnostic Technology Program are required to obtain and maintain a student membership status. Student membership is $50 per year, and students are required to be fully paid members by November 30 of each year. (These dues are paid by VUMC on behalf of students and are included as part of the program fees listed in the Estimated Cost of Attendance table in this catalog.)

Program-Specific Technology Requirements

Students are required to have a laptop computer that meets the technology standards outlined in the institutional section of this catalog.

Equipment List

NicoletOne Neurodiagnostic System – VEEG 32

This catalog contains only a partial listing program policies and procedures. Students should refer to their Program Handbook for additional information.

NUCLEAR MEDICINE TECHNOLOGY (NMT)

Program Description

The Nuclear Medicine Technology Program is a 52-week clinical training program established in 1979 as an allied health program. It is designed primarily for students who have completed a minimum of three years of pre-radiologic technology work at universities affiliated with VUMC. Students with a bachelor's degree in a related field who meet the prerequisites will also be considered. The training program prepares graduates for certification as nuclear medicine technologists. Students receive training in atomic and nuclear physics; radio-chemistry and radiopharmacy; patient care and nursing; health physics and radiation safety; radiobiology; instrumentation and computer applications; and clinical nuclear medicine procedures.

Students must successfully complete the academic course work and clinical laboratory rotations that are scheduled Monday through Friday. The clinical rotations are scheduled at Vanderbilt University Medical Center, Vanderbilt Children's Hospital, and the Veterans' Administration Hospital in Nashville. Rotations include general and pediatric nuclear medicine, PET, nuclear cardiology and nursing—as well as radiopharmacy and in vitro procedures. The program officials include a Program Director, Medical Director and Clinical Coordinator.

The program is approved as the fourth year externship in a baccalaureate degree program at Austin Peay State University in Clarksville, TN, and Middle Tennessee State University in Murfreesboro, TN. Upon graduation from the program, students are awarded a certificate from the Division of Allied Health at Vanderbilt University Medical Center, and are eligible to sit for national board certification exams.

Program Length

The VUMC NMT provides a total of 1,350 contact hours in 52 weeks of full-time, clinical study. Courses typically begin in late August (or, sometimes, early September) and continue for 12 months, with graduation the following August (or early September).

Graduation Document

Upon graduation from the program, students are awarded a certificate from the Division of Allied Health at Vanderbilt University Medical Center, and are eligible to sit for national board certification exams. Verification of hours completed and transcripts of grades are provided to affiliate universities (Austin Peay State University and Middle Tennessee State University).

Delivery Method

Residential, no online or distance education component.

Mission, Credo and Goals

In step with the mission and goals of VUMC, the mission and goals of the VUMC Nuclear Medicine Technology Program are to educate knowledgeable, talented, and compassionate students to use their acquired skills to provide the highest quality of patient care in their chosen profession of nuclear medicine.

Programmatic Accreditation/Approvals

The Nuclear Medicine Technology Program is accredited by the Joint Review Committee for Educational Programs in Nuclear Medicine Technology (JRCNMT). JRCNMT promotes appropriate standards of quality for postsecondary educational programs in nuclear medicine technology. Accreditation is granted to educational programs that meet or exceed these threshold standards, and JRCNMT conducts periodic on- site reviews of the program. Graduates of the Nuclear Medicine Technology program are eligible for the national certification examinations administered by the Nuclear Medicine Technology Certification Board (NMTCB), and the American Registry of Radiologic Technologists (ARRT).

JRCNMT:
Joint Review Committee for Educational Programs in Nuclear Medicine Technology 2000 W. Danforth Road, Ste. 130, #203
Edmond, OK 73003
Phone: 405.285.0546 Fax: 405.285.0579
E-mail: mail@jrcnmt.org

NMTCB:
Nuclear Medicine Technology Certification Board
3558 Habersham at Northlake, Building I Tucker, GA 30084-4009
Phone: 404.315.1739 Fax: 404.315.6502
E-mail: board@nmtcb.org

ARRT:
American Registry of Radiologic Technologists 1255 Northland Drive
St. Paul, MN 55120 Phone: 651-687-4048
Email: www.arrt.org

Program Staff and Faculty

Jenny Pafford, MS, CNMT
Program Director
M.S., Health Physics, 2012, Vanderbilt University, Nashville, TN; B.S., Medical Imaging Technology, 2009, Belmont University, Nashville, TN; Certificate, Nuclear Medicine Technology, 2009, Vanderbilt University Medical Center Allied Health, Nashville, TN

Gary Smith, M.D.
Medical Director
Diplomate, 1987, American Board of Internal Medicine; Diplomate, 1989, American Board of Nuclear Medicine; MD, 1983, Univ. of Texas Health Science Center – Southwestern Med. Sch., Dallas, TX; MS, 1983, University of Texas Health Science Center-Southwestern Medical School, Dallas, TX; BS, Engineering Science, 1978, University of Tennessee, Knoxville, TN

Dawn Shone, B.S., CNMT
Clinical Coordinator
B.S., Chemistry/Biology, 1987, Austin Peay State University, Clarksville, TN; Certificate, Nuclear Medicine Technology, 1988, Vanderbilt University Medical Center Allied Health
Nashville, TN;

Terri Bartek, RN
Instructor
AS, Nursing, Columbia State Comm College, Franklin, TN; BS, 1996, Microbiology, MTSU, Murfreesboro, TN

Marques Bradshaw, MD
Instructor
MD, 2004, Diplomate, 2010, American Board of Radiology, Diplomate, 2007, American Board of Nuclear Medicine, B.S., Biology, 2000, Morehouse College, Atlanta, GA

Jordan Christian, B.S., CNMT
Instructor
Certificate, Nuclear Medicine Technology, 2013, Vanderbilt University Medical Center Allied Health, Nashville, TN; B.S., General Science, 2012, Middle Tennessee State University, Murfreesboro, TN

Dominique Delbeke, MD, PhD
Instructor
Diplomate, 1988, American Board of Nuclear Medicine; Diplomate, 1989, American Board of Pathology; M.D., 1978, Free University of Brussels, Brussels, Belgium; Ph.D., Physiology, 1985, Free University of Brussels, Brussels, Belgium

Jared Driskill, PharmD
Instructor
PharmD, 1998, University of Tennessee-Memphis, Memphis, TN; BS, Pre-Pharmacy, 2001, East TN State Univ, Johnson City, TN

Marni Gardner, DPh
Instructor
B.S., Pharmacy, 1992, Samford University, Birmingham, AL

Jared Grice, DMP
Instructor
Diplomate, 2017, American Board of Radiology (Diagnostic Medical Physics); DMP, 2016, Vanderbilt University, Nashville, TN; B.S., Physics, 2012, University of MO – Columbia, Columbia, MO

Belinda Heffner, RN
Instructor
AS, Nursing, 1991, Lake Sumter Comm College, Leesburg, FL Pam Hodges, B.S., CNMT

Pam Hodges, B.S., CNMT
Instructor
Certificate, Nuclear Medicine Technology, 1983, Vanderbilt University Medical Center Allied Health, Nashville, TN; B.S., Nuclear Medicine, 1983, Austin Peay State University, Clarksville, TN

Aaron Jessop, MD
Instructor
Diplomate, 2010, American Board of Nuclear Medicine; MD, 2006, University of Nebraska Medical Center, Omaha, NE; MBA, 2014, Cornell Univ., Ithaca, NY

Jennifer Matteucci, B.S., CNMT, ARRT(N)
Instructor
Certificate, Nuclear Medicine Technology, 2015, Vanderbilt University Medical Center Allied Health, Nashville, TN; B.S., Nuclear Medicine, 2015, Austin Peay State University, Clarksville, TN

Brooklyn Milliken, B.S., CNMT
Instructor
Certificate, Nuclear Medicine Technology, 2010, Vanderbilt University Medical Center Allied Health, Nashville, TN; B.S, Nuclear Medicine Technology, 2010, Austin Peay State University, Clarksville, TN

Brian Murphy, B.S., CNMT
Instructor
Certificate, Nuclear Medicine Technology, 2016, Vanderbilt University Medical Center Allied Health, Nashville, TN; B.S, Nuclear Medicine Technology, 2016, Austin Peay State University, Clarksville, TN

James Patton, Ph.D.
Instructor
Diplomate of the American Board of Radiology (Nuclear Physics), 1996, Ph.D., 1972, Physics, Vanderbilt University, Nashville, TN; B.S., 1966 (Summa Cum Laude) Physics & Math, Western Kentucky University, Bowling Green, KY

David Pickens, PhD
Instructor
PhD, Mechanical Engineering, 1981, Vanderbilt University, Nashville, TN; MS, Mechanical Engineering, 1977, Vanderbilt University, Nashville, TN; BE, Biomedical Engineering, 1971, Vanderbilt University, Nashville, TN; BA, Biology, 1969, The University of the South, Sewanee, TN

Rebekah Smith, B.S., CNMT, NCT
Instructor
B.S., Nuclear Medicine, 2000, Old Dominion University, Norfolk, VA

Jill Saunders, B.S., CNMT
Instructor
Certificate, Nuclear Medicine Technology, 2003, Vanderbilt University Medical Center Allied Health, Nashville, TN; B.S., Nuclear Medicine Radiology, 2003, Austin Peay State University, Clarksville, TN

Paul Searfoss, B.S., CNMT, ARRT(N)(CT)
Instructor
Certificate, Nuclear Medicine Technology, 2011, Vanderbilt University Medical Center Allied Health, Nashville, TN; B.S., Radiologic Technology, 2011, Austin Peay State University, Clarksville, TN

Chirayu Shah, MD
Instructor
Diplomate, 2008, American Board of Nuclear Medicine; Diplomate, 2012, American Board of Radiology; MD, 2004, Meharry Medical College, Nashville, TN; BS, Biochemistry, 1998, David Lipscomb University, Nashville, TN

Kerri Wyatt, B.S., CNMT
Instructor
Certificate, Nuclear Medicine Technology, 1999, Vanderbilt University Medical Center Allied Health, Nashville, TN; B.S., Nuclear Medicine Radiology, 1999, Austin Peay State University, Clarksville, TN

Academic Calendar – 2018-2019 Program Calendar

08/27/2018	Start Date
09/03/2018	Labor Day - No Rotations
11/22 - 11/23/2018	Thanksgiving Break
12/24/2018 - 01/04/2019	Winter Break
03/22 - 03/24/2019	NMTT Conference
04/22 - 04/26/2019	Spring Break
05/27/2019	Memorial Day - No Rotations
07/04/2019	4th of July – No Rotations
08/26/2019	Graduation

Admission
Qualified applicants with a bachelor's degree from any accredited college or Vanderbilt University are eligible for appointment. Students who have not yet received a bachelor's degree must be enrolled at Austin Peay University or Middle Tennessee State University; must meet other admission requirements;

and must have the recommendation of the university's program director in order to be considered for admission.

Admission Requirements

All applicants must possess a high school diploma, a high school diploma equivalency, a current Tennessee license in the field for which the training is intended, or postsecondary credit in a degree program.
For the Nuclear Medicine Technology program, in addition to the minimum requirements listed above, qualified applicants with a bachelor's degree from any accredited college or Vanderbilt University are eligible for appointment. Students who have not yet received a bachelor's degree must be enrolled at Austin Peay University or Middle Tennessee State University; must meet other admission requirements; and must have the recommendation of the university's program director in order to be considered for admission.

Candidates for admission to the program must meet the following requirements (in addition to the minimum requirements listed above):

- Baccalaureate degree from an accredited College or University OR eligibility for that degree at the completion of the program at one of the affiliate universities. Applicants in programs at affiliated schools must have satisfactorily completed three years of college credit.
- Prerequisite coursework/content:
    - Chemistry course (with lab)
    - College algebra course
    - General physics course
    - Human Anatomy and Physiology course (with lab)
    - Humanities course
    - Medical terminology content
    - Oral and written communications courses
    - Social sciences course
    - Introduction to computers
- A minimum overall grade point average of 3.0 is highly recommended, but an average of as low as 2.5 may be considered in some cases.
- Applicants should be of good moral character, personable, and able to relate to patients.

Application Procedures

A completed application must be submitted by March 15th of the application year and includes:

1. Application form (available on the Nuclear Medicine Program website)
2. Three letters of reference
3. Official transcripts from all higher education institutions attended
4. Certificate of Observation, documenting 16 hours of clinical observation at VUMC (form available on the Nuclear Medicine Program website; completed by Observation supervisor; see details below)
5. If the applicant is enrolled in one of the universities affiliated with the program, the following additional items are required for application:
    - Verification of Completion of Prerequisites for Admission Form (page 6 of the program application; completed by program director)
    - Recommendation of the program director at the school is required.

To apply, mail the documents listed above, to:
Jenny Pafford, MS, CNMT
Program Director
Vanderbilt University Medical Center

Medical Center North CCC-1124
1161 21st Ave
Nashville, TN 37232-2675

Clinical Observation Experience

As part of the preparation for application to the VUMC Nuclear Medicine Technology Program, all applicants are required to spend 16 hours engaged in observation at Vanderbilt's Nuclear Medicine Department. The purpose of the observation experience is to allow applicants an opportunity to observe staff, as well as patients, in order to learn the role of a Nuclear Medicine Technologist and of other staff within the Nuclear Medicine Department.

Clinical observation experiences must be completed by March 15th of the application year, and a Certificate of Observation form (completed by observation supervisor or appropriate departmental administrator) must be submitted with other required application materials. Applicants should arrange for VUMC observation experiences by calling or emailing the Program Director of the Clinical Coordinator.

Applicant Interviews

Applicants who meet the requirements for admission may be invited to interview for the program. Each interviewee meets individually with an Interview Committee consisting of the Program Director, Clinical

Coordinator, and a Senior Technologist (currently an individual who has been identified as a Program Director in Training).

Student Selection and Acceptance
Student selection is conducted by a committee consisting of the Program Director, Medical Director, Technical Coordinators, and Degree Advisors. Selection is based on academic background, references, interview and motivation. Students applying for the externship year to complete their education at Austin Peay University or Middle Tennessee State University receive preference in the selection process. Applicants selected for admission to the program must successfully complete a background check before matriculation into the program.

Academic Program

Curriculum Sequence/Program Delivery
A series of topics in a classroom setting will be taught with emphasis on the following topics:

1. Patient Care
2. Cross-Sectional Anatomy
3. Nuclear Medicine Statistics
4. Nuclear Medicine & Radiation Physics
5. Radiation Biology
6. Radiation Safety and Protection
7. Nuclear Medicine Instrumentation
8. Quality Assurance & Quality Control
9. Computer Applications in Nuclear Medicine
10. Diagnostic Nuclear Medicine Procedures
11. Immunology
12. Radiation Therapy
13. Positron Emission Tomography (PET)
14. Computed Tomography (CT)
15. Radiochemistry & Radiopharmacy
16. Medical Ethics and Law
17. Healthcare Administration
18. Research Methods
19. Medical Informatics
20. Pharmacology

Students also complete 16 rotations in nursing, radiopharmacy, nuclear medicine imaging, and PET with CT in VUMC Adult and Children's Hospitals and the VA Hospital, under the supervision of certified technologists, radiopharmacists, and nurses. Laboratory rotations and lectures may be supplemented by special programs and seminars in the Department of Radiology in an effort to ensure a well-rounded educational experience in Nuclear Medicine Technology. Students also participate in the State Technologist Meeting with Poster and/or Oral Presentations.

Program Coursework

Course	Lecture	Lab	Practicum/ Clinical	Total In-class Hours	Additional Outside clock hours	Total Clock Hours
NM Physics and Instrumentation	76.00			76.00	0	76.00
Nuclear Math	22.00			22.00	0	22.00
Clinical Nuclear Medicine	115.00			115.00	0	115.00
Radiochemistry and Radiopharmacy	78.00			78.00	0	78.00
Patient Care	19.00			19.00	0	19.00
Radiation Safety	32.00			32.00	0	32.00
Imaging Informatics: NM Computer Applications	22.00			22.00	0	22.00
Clinical Nuclear Medicine Laboratory		986.00		986.00	0	986.00
Program Totals	364.00	986.00	0	1,350.00	0	1,350.00

Course Descriptions

Clinical Nuclear Medicine

This course begins with a course overview and a discussion of medical ethics and terminology. The course is divided into sections by organ systems. Each section includes a review of organ anatomy and physiology, diseases and disorders common to the organ system and detailed discussions of the imaging and functional procedures that are performed to evaluate that system. Interpretation of the data obtained from each procedure is discussed. In addition, a separate section is devoted to cross-sectional anatomy using CT as the primary instruction modality with fused image correlations using PET/CT and SPECT/CT. These topics are covered by the physician faculty. Simultaneously with these lectures, the imaging techniques associated with each organ system are taught by the technical staff. Also included are discussions of the techniques and applications of radionuclides for radiotherapy procedures. Finally, a separate section is devoted to *In Vitro* procedures.

Clinical Nuclear Medicine Laboratory

This clinical nuclear medicine experience/training consists of eight clinical rotations, each of three weeks duration, using the clinical nuclear medicine facilities at Vanderbilt Adult and Children's Hospitals and the VA Medical Center. Rotations include radiopharmacy and in vitro lab, patient care, cardiac stress testing, general nuclear medicine and positron tomography imaging procedures in adults and children, and quality assurance. Every student rotates through each of eight rotations, and then the sequence is repeated, for a total of sixteen rotations. The imaging rotations are established so that each student is assigned to a single independent work assignment supervised by a board-certified technologist, a radiopharmacist (radiopharmacy rotation), or a radiology registered nurse (nursing rotation) for three weeks. Rotations may be modified as needed during the second set of rotations to address noted deficiencies of specific students. Students receive written evaluations weekly from the supervisory staff. Proficiency testing (73 check-offs) is accomplished during the second set of rotations and students may move from their assigned rotation to another, with permission, in order to perform a study and receive a check-off in that area.

Imaging Informatics: Nuclear Medicine Computer Applications

This course provides an introduction to medical imaging informatics for nuclear medicine including computer terminology, languages, and equipment as well as description of current nuclear medicine data acquisition, processing, storage, and image distribution systems. Topics covered include computer analysis of laboratory sample data and data from static, dynamic, and gated studies.

Mathematics of Nuclear Medicine

This course provides an introduction to the units used in nuclear medicine and a basic review of mathematics including algebra, scientific notation, logarithms, and exponentials. Special emphasis is placed on calculations involving inverse square law, attenuation equations, and dose calculation equations. Also covered is an introduction to statistics including the statistical treatment of sample counting data and the randomness of radioactive decay with emphasis on mean, standard deviation, percent error, acceptability of duplicate samples, and Chi-square calculations.

Patient Care in Nuclear Medicine

The Patient Care in Nuclear Medicine course provides the student with the basics of patient care including basic nuclear medicine terminology, aseptic techniques, injections, blood drawing, catheters, moving and lifting patients, ECG monitoring and gating, and the handling of emergencies. This course also covers the aspects of medical ethics involving patient relationships and professional conduct. In addition, legal aspects of the profession are discussed including certification/licensure, employee liability, patient confidentiality, and the legal entities that have oversight for the practice of nuclear medicine.

Nuclear Medicine Physics, Instrumentation, and Quality Assurance

This course begins with an overview of the basics of nuclear medicine physics, including the structure of the atom, radioactive decay processes and laws, and interactions of radiation with matter. This is followed by a discussion of the topics related to radiation exposure and absorbed dose. The next sections discuss the concepts of radiation detection including gas-filled ionization detectors and scintillation detectors. The remaining sections are devoted to in-depth discussions of imaging instrumentation including scintillation cameras, single photon emission computed tomography (SPECT), positron emission tomography (PET), and x-ray computed tomography (CT) systems. The final section is covers the theory and performance of quality assurance of dose calibrators, scintillation counting systems, and planar, SPECT, PET, and CT systems with emphasis on identifying and solving problems.

NMT Radiation Safety

This course covers various topics related to radiation safety in nuclear medicine including protection from external and internal sources of radiation, biological effects of radiation exposure, health physics instrumentation, identification and control of contamination, patient therapy dose considerations, response to radiation related emergencies, and federal and state regulations.

Radiochemistry and Radiopharmacy

This course provides a basic review of chemistry, including chemical bonding, solutions, proteins, carbohydrates, lipids, and chelates. Also included is an introduction to radionuclide chemistry, including radionuclide production, labeling techniques, chromatography, isotopes, and technetium chemistry. The organization, recordkeeping responsibilities, quality control procedures, and radiopharmaceutical preparations for which the radiopharmacy is responsible are also presented. In addition, laboratory procedures and techniques including radiopharmaceutical kit preparation, generator handling, dose calculations and calibrations, and handling of long-lived radioisotopes are taught.

Assignment of Credit Hours by Affiliated Universities

The VUMC Nuclear Medicine Technology Program provides official verification of each student's hours completed and a transcript of grades to the affiliate university in which the student is enrolled (Austin Peay State University and Middle Tennessee State University). These VUMC documents are intended as verification of the VUMC program experience. However, the VUMC Nuclear Medicine Technology Program does not assign academic credit for the work completed in its program. Each university's methods of assigning credit to the VUMC NMT program experience, as well as the number of college credits ultimately awarded to each student, are determined by each university independently from VUMC, and according to the university's own policies.

Graduation Requirements

In order to graduate, students must receive a passing grade of 70 or better in all courses, obtain a grade of 75 or better in the clinical rotations, and complete a list of 72 competency evaluations ("check-offs"). Students must complete 1,350 clock hours during the 12-month program.

Student Assessment

Grading System

Scale	Grade	Definition	GPA
100–95%	A	Excellent	4.0
94–90%	A-	Excellent	3.7
89-87	B+	Good	3.3
86-83%	B	Good	3.0
82-80%	B-	Good	2.7
79-75%	C+	Satisfactory	2.3
74-70%	C	Satisfactory	2.0
69–0%	F	Inadequate	< 2.0

P	*Pass* Any course with a "P" grade is not calculated into the grade point average.
F	*Fail* Any course with an "F" grade is not calculated into the grade point average. However, the course must be repeated and passed to graduate.
I	*Incomplete* An incomplete may be used at the discretion of the instructor in those cases in which the student is not able to complete work in the normal time. In those instances, the student and instructor develop a written plan for an extension to provide work by a specific date that falls within the period of time specified by the relevant program's requirements (but in no circumstances greater than one month). An "I" that is not replaced by a letter grade within the period of time specified by the relevant program's requirements, due to unsatisfactory completion of the student's plan, will be changed to an F after the period specified by the program (a period not to exceed one month). Any course with an "I" grade is not calculated into the grade point average. Once a grade is assigned to the course (when conditions are met that allow for the removal of the "I" and assignment of a final grade), that grade will factor into the student's GPA.
W	*Withdrawal* A Withdrawal is provided when a student leaves the course due to an approved leave-of-absence or is withdrawn from the school prior to the scheduled completion of a course. Any course with a "W" grade is not calculated into the grade point average.

R	*Repeat* Some programs allow students to repeat courses. In those programs, for any course that is repeated, a Repeat will be provided as the grade for the first attempt at the course. Any course with an "R" grade is not calculated into the grade point average. However, courses will be considered hours / credit hours attempted for the purpose of determining maximum time frame. Please refer to each program's student handbook for information about whether students are allowed to repeat courses in any given

Students who do not complete required work or hours in a course will be assigned a failing grade for the course.

Clinical Rotation Evaluations

Students receive a clinical evaluation at the end of each week. The Clinical Coordinator will review these evaluations with each student. These evaluation conversations allow for frequent and constructive feedback to students on their professional development. These evaluations are counted toward the quarterly review of Satisfactory Academic Progress

Satisfactory Academic Progress

Each students' academic progress is evaluated quarterly. A student is considered to be maintaining satisfactory academic progress (SAP) if he/she maintains a 70 percent academic average in didactic coursework and a 75 percent academic average in clinical rotations. In addition, students must have satisfactory attendance in order to maintain satisfactory academic progress.

Prior to the quarterly determination of SAP status, the student, the Program Director and the Clinical Coordinator meet to discuss the student's progress. These meetings include discussion of grades in didactic courses, evaluations in clinical rotations, radiation exposure reports, absences, contact hours, etc. Students are given the opportunity to discuss any questions or concerns they may have related to their academic progress. Following this meeting the Program Director and the Clinical Coordinator make a determination of whether or not the student is maintaining Satisfactory Academic Progress.

Students receive a clinical evaluation at the end of each week. The technologists responsible for supervision of the students during the week review these evaluations with each student. These evaluation conversations allow for frequent and constructive feedback to students on their professional development. These evaluations are counted toward the quarterly review of Satisfactory Academic Progress.

Student Conduct

Adherence to the VUMC Code of Conduct, the VUMC Center for Programs in Allied Health Honor Code and the Vanderbilt Nuclear Medicine Technology Program Honor Code is required of students at all times.

Vanderbilt Nuclear Medicine Technology Program Honor Code

As professional students, it is expected that the Vanderbilt Nuclear Medicine Technology Program Honor Code be followed at all times. All projects submitted are presumed to be the student's own work unless appropriate credit to others is given when submitted. The following are considered violations of the Honor Code and will result in disciplinary action up to and including dismissal from the program:

- Cheating on an examination, test or written project
- Plagiarizing (incorporating into one's own work the work of another without identifying the source) in an assigned paper, report or project

- Submitting work prepared by another person as one's own (including use of texts, papers, computer programs, or other class work prepared by commercial or noncommercial agents)
- Submitting work prepared for another rotation without the specific prior authorization of the Program Director
- Falsification of results of study and research

Equipment List

GE Ventri-VCT dual -head cardiac scintillation camera with GE 32 slice CT scanner
GE Discovery 670 dual-head scintillation camera with 16 slice CT scanner
GE Infinia dual-head scintillation camera with single slice Hawkeye CT scanner
GE Magicam dual-head scintillation camera
Philips Skylight dual-head scintillation camera
GE Advance PET scanner with 8 slice CT scanner
GE Advance mobile PET scanner with 16 slice CT scanner
GE Lunar DEXA Bone Densitometry scanning system
GE PETTrace 16 MeV Cyclotron
Capintec radioisotope dose calibrators with drawing stations
Thyroid Uptake probe with well counter
Automated sample counting system
PET radiopharmacy with hot cells and synthesis modules
Stand alone well counter
GM hand held survey meters
Treadmill for cardiac stress testing
Multi-lead EKG systems
GE Infinia dual-head scintillation camera with Hawkeye-4 CT scanner
Philips Forte dual-head scintillation camera
Philips SkyLight dual-head scintillation camera
GE Optima 640 dual-head scintillation camera with 4 slice CT scanner
GE Case cardiac stress test system with treadmill and multi-lead EKG
GE Xeleris nuclear medicine work station
Philips Pegasys nuclear medicine work station
GE Lunar DEXA Bone Densitometry scanning system Captus
3000 thyroid uptake probe
Capintec CRC-15R dose calibrator
GE Advance PET scanner with 16 slice CT scanner

This catalog contains only a summary of program policies and procedures. Students should refer to the program/student handbook for additional information.

PERFUSION PROGRAM

Program Introduction

Perfusion involves the study of physiology, pathology, and associated equipment used to support and/or assume the function of the heart and/or lungs during medical procedures. The perfusionist prepares and operates the heart-lung machine and other sophisticated equipment as directed by healthcare physicians. The perfusionist measures various blood and other parameters to identify appropriate mechanical, pharmacological, and thermal manipulation to maintain tissue viability. To perform these tasks the perfusionist must have a thorough understanding of both the physiology and anatomy of respiratory and circulatory systems and be able to operate complex equipment. Additionally the perfusionist must be capable of handling stressful situations, pay great attention to detail, communicate effectively, and be willing to stay abreast of new developments in the profession.

The Vanderbilt Perfusion Program was founded in 1979. The program is directed in collaboration with the Vanderbilt Heart and Vascular Institute.

Certification/Credentialing

Upon completion of the program graduates receive an accredited Certificate in Cardiovascular Perfusion Technology that qualifies graduates to apply for and take the Perfusion Basic Sciences Examination and the Clinical Application in Perfusion Exam administered by the American Board of Cardiovascular Perfusion (ABCP).

Program Length

The VUMC Perfusion program requires completion of 96 semester credits. The program typically begins in early August, and students graduate with their cohort in mid-
May, after 22 months of full-time study.

Delivery Method

Blended: The Perfusion Program includes both residential and distance learning components.

VUMC Perfusion Program Mission Statement

Through the dedication to the cardiovascular perfusion profession and patient care, the Perfusion Program will inspire its students to become leaders in independent thinking in the promotion of medical evolvement. Our students will recognize the commitment to life-long learning and the benefit of interdisciplinary collaboration to provide world class patient care to each and every patient not only today but in the future.

VUMC Perfusion Program Philosophy

It is the philosophy of the program that all patients have a right to receive and deserve competent and compassionate not only cardiac care but medical care. Perfusionists must possess skills and knowledge necessary to operate the heart lung machine (HLM) during the care of a patient who requires cardiac and/or pulmonary support. The perfusionist must possess critical thinking skills, as well as professional collaboration skills. The perfusionist must not only be able to operate the HLM but they must understand the physiological implications of the management of all aspects of cardiovascular perfusion. The program is committed to providing the healthcare community with perfusionists who are competent, knowledgeable, and compassionate critical-thinking professionals with ability to work well with other medical professionals and with the ultimate goal of delivering safe, efficient, and effective patient care. Perfusionists of this program will understand the value of continuous learning in the promotion of medicine.

Program Objectives and Goals

The VUMC Perfusion Program bases its educational process and strategy on those principles that are essential in preparing students to achieve the ideals of the profession. The Program strives to instill in each student:

- Knowledge, skills and professional attitude necessary to safely and effectively perform clinical perfusion care;
- Concern for others, which carries with it the responsibility of good patient care combined with professional cooperation with fellow students and staff and faculty;
- Desire to strive for new knowledge and to accept and adopt changing trends in the profession;
- Capacity to accept leadership roles, whether in management or education; and
- Interest in the growth and development of the perfusion profession.

Goal 1: To prepare entry level perfusionists in core curriculum competencies and clinical competencies as a route to eligibility for certification by the American Board of Cardiovascular Perfusion.
***Goal 2*:** To provide a supply of competent entry-level perfusionists to influence the supply and distribution of perfusionists for the nation.
Goal 3: To provide the students of the program with a comprehensive and high fidelity perfusion simulation program.

Programmatic Accreditation/Approvals

The general academic requirements for all perfusion education programs are established by the Accreditation Committee for Perfusion Education (AC-PE), which is responsible for the initial and continuing evaluation of all perfusion education programs. The AC-PE is accredited to so operate pursuant to authority granted by the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

The VUMC Perfusion Program is programmatically accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). This accreditation is granted only after recommendation by the Accreditation Committee – Perfusion Education (AC-PE) based on a programmatic review and site visit. Recognition by CAAHEP qualifies the program's graduates for eligibility to apply for and take the Perfusion Basic Sciences Examination and the Clinical Application in Perfusion Exam administered by the American Board of Cardiovascular Perfusion (ABCP).

CAAHEP:
Commission on Accreditation of Allied Health Education Programs
25400 U.S. Highway 19 North, Suite 158
Clearwater, FL 33763
Phone: 727-210-2350
Fax: 727-210-2354
www.caahep.org

AC-PE:
Accreditation Committee - Perfusion Education
6663 South Sycamore Street
Littleton, CO 80120
Phone: 303.794.6283
Fax: 303.738.3223
www.ac-pe.org

Program Staff and Faculty

The program officials include a Medical Director, Assistant Medical Director, Program Director, and Clinical Coordinator, as well as clinical instructors, all of whom are experts in the field. Key program staff/faculty are:

Nicole Michaud, MS, CCP, LP, CPBMT
Program Director
Master of Science, Perfusion, 1996, Milwaukee School of Engineering, Milwaukee, WI; Bachelor of Science, Biomedical Engineering, 1994, Milwaukee School of Engineering, Milwaukee, WI; Tennessee Licensed Clinical Perfusionist; Wisconsin Licensed Clinical Perfusionist; Certified Clinical Perfusionist; Certified Perioperative Blood Management Technologist

Courtney Schwimer, BS, CCP, LP, FPP, CLS-MT,
Clinical Coordinator
Bachelor of Science in Cardiovascular Perfusion, 2010, Medical University of South Carolina, Charleston, SC; Certificate Program: Clinical Laboratory Scientist (CLS) Certificate, 2006, Methodist Hospital, Indianapolis, IN; Bachelor of Science in Health Sciences, 2005, Purdue University, West Lafayette, IN
North Carolina Licensed Clinical Perfusionist, Certified Clinical Perfusionist, Fellow of Pediatric Perfusion, Clinical Laboratory Scientist

Program Advisory Committee
The Perfusion program at Vanderbilt University Medical Center has an active Advisory Committee to assist administration and faculty in fulfilling the program's educational objectives. The Committee includes four (4) external representatives, in addition to members of the Vanderbilt University Medical Center. The committee includes chief perfusionists and graduates from outside medical centers and a community representative, providing a range of voices from the community. All Advisory Committee members are provided an advisory committee guide, which outlines and summaries the program and the responsibilities of the members of the programs advisory committee.

The Advisory Committee convenes annually and addresses a broad range of topics that include the program's mission and objectives; admission policies; curriculum; outcomes; program strength and weaknesses in preparing graduates; current and projected community needs for graduates in the field; annual evaluation of program effectiveness; and student, graduate, clinical affiliate, and employer feedback. Members of the committee review any grievances that require resolution.

Perfusion Program Advisory Committee	
Cannon, Kim	Public Member
Anthony, Johnson	Clinical Perfusionist
Smith, Chad	Clinical Perfusionist and Graduate
Rodgers, Berkeley	Clinical Perfusionist
Roberts, Tamra	Distance Education Member
Michaud, Nicole	Director, Perfusion Program
Schwimer, Courtney	Clinical Coordinator, Perfusion Program
Shah, Ashish Suresh	Medical Director -Cardiac Surgeon
Petracek, Michael	Assistant Medical Director -Cardiac Surgeon
Kaiser, Clayton	Assistant Medical Director -Cardiac Surgeon
Fornero, Dane	Chief Perfusionist - Adult-Clinical Perfusionist

Sprouse, Petrice	Director – VUMC Center for Programs in Allied Health	
Koger, Hershell	Student Class of 2019	
Smith, Kristen	Associate Program Manager- Program in Allied Health	
Rosenstiel, Donna	Assistant Dean - Office of Health Science Education	
Merrill, Walter	Chief of Staff	
McHaskell, Ebony	Assistant Director, Financial Aid and Student Enrollment	
Fair, Kerry	Clinical Chief Perfusionist- Pediatric-Clinical Perfusion	

Clinical Competency Committee

The Clinical Competency Committee consists of the Program Director, Clinical Coordinator and clinical perfusion instructors of the Perfusion Program. The Program Director appoints a chairman of the Clinical Competency Committee and requests periodic meetings for the purpose of evaluating a student's clinical performance. Each student is evaluated by the committee prior to graduation to determine whether the student is clinically competent and meets the minimum requirements of the ABCP.

Admissions Committee

The admission committee reviews applications on an annual basis and is composed of different clinical perfusionists who collaborate with the program in clinical education as well as the program director and clinical coordinator. In addition, those members of the admission committee available participate in the interviews for the final selection of the incoming class. The admission committee meets annually to discuss the entrance requirements for the program as well as the selection process for the program.

Perfusion Program Admissions Committee	
Michaud, Nicole	Director – Perfusion Program
Schwimer, Courtney	Clinical Coordinator – Perfusion Program
VanBebber, Alicia	Senior Clinical Perfusionist – Pediatric- Clinical Perfusion
Lepore, Joey	Clinical Perfusionist – Adult –Clinical Perfusion
Hodge, Phyllis	Senior Clinical Perfusionist – Adult – Clinical Perfusion
Bennatan, Alex	Clinical Perfusionist – Adult – Clinical Perfusion
Meholchick, Mark	Senior Clinical Perfusionist – Adult – Clinical Perfusion
Mailyan, Marina	Senior Clinical Perfusionist – Adult – Clinical Perfusion

	Juniors (Class of 2020)	*Seniors (Class of 2019)*
Program Start Date	August 10, 2018	August 4, 2017
Thanksgiving Break	November 21, 2018 @ NOON	November 21, 2018 @ NOON
Return from Thanksgiving Break*	November 26, 2018	November 26, 2018
Final Exam(s) for Fall Semester	December 17-20, 2018	December 21, 2018
Christmas Break Start	December 20, 2018 @ 1600	December 21, 2018 @ 1200
Return for Spring Semester*	January 3, 2019	January 3, 2019
Final Exam(s) for Spring Semester	May 1, 2019	May 7, 2019
Last Day of Clinic for Spring Semester	April 30, 2019	May 10, 2019
Spring Break	May 9-12, 2019	N/A
Summer Semester Begins*	May 13, 2019	N/A
Oral Exam	N/A	May 16, 2019
Review Course	N/A	May 13-15, 2019
Review Course Exam	N/A	May 21, 2019
Graduation	May 30, 2020**	May 23, 2019

Admission

Admission Requirements
All applicants must possess a high school diploma, a high school diploma equivalency, a current Tennessee license in the field for which the training is intended, or postsecondary credit in a degree program.
While prior medical experience is not required for admission to the program, it is highly recommended. Strong candidates in the past have functioned in some capacity in the medical arena for a minimum of one year. This experience has proven to be an asset to them in their understanding of medical terminology and practices, but it is not required.

Academic requirements for admission to the Perfusion program for the Class of 2020 include VUMC's minimum requirements and the following:

- Bachelor's degree from an accredited college or university
- 6 credit hours of the following courses from an accredited college:
    - Anatomy and/or Physiology
- 4 credit hours of the following courses from an accredited college:
    - General Biology
    - General Chemistry
    - Biochemistry or Microbiology or Organic Chemistry or Inorganic Chemistry
- 3 credit hours of the following courses from an accredited college:
    - Mathematics (College Algebra or Higher)
    - Physics

One credit hour or more of Medical Terminology is required. This requirement cannot be waived or satisfied using work or other experience.

Application Procedure
Prospective students of the Perfusion Program may apply by submitting a completed application form and required supporting materials, as listed below. The application for admission is posted on the VUMC Perfusion Program website each summer. The following materials must be submitted with the application in a single mailing envelope:

1. Completed application.
2. Three (3) professional references from individuals familiar with the applicant's academic and/or professional experience.
3. Official transcripts from all institutions of higher learning the applicant has attended (in sealed envelopes).
4. A non-refundable application fee, made payable to Vanderbilt University Medical Center. The submission application fee is $100.
5. Applications are accepted from the summer (when the application is made available to applicants) through the fall, with a final deadline of November 1st of each year. Applications postmarked after November 1st will not be accepted, and the application fee will be returned.

All applicants meeting the criteria for the program are reviewed and scored by the committee.

Applicant Interview
After submission of a complete application package, qualified candidates are invited to attend an interview with the admissions committee and a tour of VUMC and program facilities. Interviews require 2-3 hours of the applicant's time and are conducted in January of each year. Interviews are a required for admission to the program. An interview schedule is provided to each invited applicant no later than December 23rd each year. Interviews include the following components:

1. Four (4) 15-minute, in-person interviews with a panel of Admission Committee members.
2. Written essay (30 minutes to write)
3. Dexterity test
4. Basic Science Exam

5. Tour of program facilities (including the simulation lab and classroom facilities), as well as the VUMC campus
6. An opportunity to speak with current students in the program.

During the interview, applicants are provided an overview of the program and the selection process, and they are asked about their level of competency with computer skills and learning management systems. Also, applicants should be prepared to discuss during the interview their understanding of a cardiovascular perfusion and the qualities they possess to be a clinical perfusionist.

Applicant Selection

The Perfusion Program seeks to admit applicants that will be successful all aspects of the program. The Admission Committee is committed to selecting a class that will be able to work as team members, both fostering and challenging their student colleagues to reach their potential in the program. In addition, to meeting admission requirements, candidates with the following qualities are viewed favorably by the Admission Committee:

- Personal ambition
- Commitment to earning
- Attention to detail
- Passion for professional excellence

The final selection of students in the Perfusion Program is based on a scoring system taking into considerations all aspects of the application and interview process: application score, dexterity score, interview evaluation, interview written essay and basic science exam.

Academic Program

Program Sequence and Delivery

Students in the Perfusion Program at Vanderbilt University Medical Center experience 22 monthsof clinical and didactic training, leading to a certificate in Perfusion from the Center for Programs in Allied Health at Vanderbilt University Medical Center. The Perfusion Program does not accept advanced placement credits. Students in the program must complete the entirety of the program curriculum in sequential order to successfully complete and graduate from the program. The program starts at the beginning of August each year and ends in mid-May. Modes of delivery of clinical objectives:

- Clinical Rotational Experience
- Simulation
- Medical Conferences/Presentations
- Competency Modules/Checklists

FIRST YEAR - FALL SEMESTER (August through December)

- A and P 501: Anatomy and Physiology
- PHARM 501: Pharmacology
- PATHO 501: Pathophysiology
- CVPT 501: Cardiovascular Perfusion Technology I
- RES 501: Research Lab I
- SIM 501: Simulation I

FIRST YEAR - SPRING SEMESTER (January through May)

- CVPT 502: Cardiovascular Perfusion Technology II
- RES 502: Research Lab II
- CR 501: Clinical Rotation I
- SIM 502: Simulation II

SECOND YEAR - SUMMER SEMESTER (May through August)

- CR 502: Clinical Rotation II
- SEM 501: Seminars in Perfusion

SECOND YEAR - FALL SEMESTER (August through December)

- CVPT 503: Cardiovascular Perfusion Technology III
- RES 503: Research Lab III
- CR 503: Clinical Rotation III
- SIM 503: Simulation III

SECOND YEAR - SPRING SEMESTER (January through May)

- CVPT 504: Cardiovascular Perfusion Technology IV
- RES 504: Research Lab IV
- CR 504: Clinical Rotations IV
- SIM 504: Simulation IV

Course	Lecture	Lab	Practicum / Clinical	Semester Credit Hours
Human Anatomy and Physiology	4.5			4.5
Pharmacology	3.0			3.0
Pathophysiology	4.0			4.0
Cardiovascular Perfusion Technology I	4.5		2	6.5
Cardiovascular Perfusion Technology II	2.0			2.0
Cardiovascular Perfusion Technology III*	2.0			2.0
Cardiovascular Perfusion Technology IV*	2.5			2.5
Clinical Rotation I			15	15.0
Clinical Rotation II			12	12.0
Clinical Rotation III			16	16.0
Clinical Rotation IV			16	16.0
Research I	1.0	1.0		2.0
Research II	1.0			1.0
Research III*	1.0			1.0
Research IV*		1.0		1.0
Simulation I	1.0	2.0		3.0
Simulation II		1.0		1.0
Simulation III		1.0		1.0
Simulation IV		1.0		1.0
Seminars in Perfusion*	1.5			1.5
Program Totals	28	7	61	96

* Designates course delivery in Blended Distance Education format.

Definition of Credit Hour
Credit hours are determined based on the following equivalencies:

- 15 lecture semester hours is equivalent to 1 credit
- 30 laboratory semester hours is equivalent to 1 credit
- 45 practicum semester hours is equivalent to 1 credit

Each Perfusion Program course 1) has its own syllabus outlining grading criteria, 2) is assigned semester credit hours and 3) is delivered as outlined in the program curriculum.

Course Descriptions

Anatomy and Physiology (A and P 501)
This course provides the entry-level perfusion student with a detailed overview of specific areas of human anatomy and physiology: cardiac, vascular, renal, and respiratory. Emphasis is placed on the application of these areas as it applies to cardiovascular and perfusion technology. The student will be provided with a basis for understanding the complex interaction of the patient with the mechanisms of extracorporeal circulation or applications of techniques utilizing modes of perfusion in the treatment of different disease states. Course work will include both class time and observations within the surgical suite, cardiac cath, as well as on the patient cardiovascular intensive care units. Offered in the Fall Semester.

Cardiovascular Perfusion Technology I (CVPT 501)
This course introduces the entry-level perfusion student to fundamental development perfusion techniques through theoretical and practical applications. Students will examine the relationship between blood flow within and outside the body and the cardiovascular devices utilized to facilitate extracorporeal circulation. The student will be presented with the history, basic components, equipment, physiological monitoring and measurement, laboratory measurement, priming components and physiology as related to extracorporeal perfusion. Students will rotate through different areas of the Vanderbilt University Hospital to gain an understanding of the
therapies and diagnostic testing a cardiac patient is exposed to during the treatment of their disease state. Offered in Fall Semester.

Cardiovascular Perfusion Technology II (CVPT 502)
This course will build upon the fundamental principles taught in CVPT I. The course will expand upon a few of the fundamental principles and introduce new areas where perfusion techniques are utilized. Students will demonstrate the understanding of perfusion policies and procedures and the ability to complete a perfusion plan based on specific patients. The student will be introduce to transplantation techniques for the heart, heart-lung, lung, and liver, cerebral perfusion techniques, embryology of the cardiac and vascular system, cardiac assist devices and extracorporeal membrane oxygenation. Offered in the Spring Semester. Prerequisites: SIM 501, PATHO 501, CVPT 501, PHARM 501, RES 501, A and P 501

Cardiovascular Perfusion Technology III (CVPT 503)
This course will continue to build upon the fundamental principles taught in CVPT I and II. This course will expand upon the fundamental principles while incorporating new areas of perfusion technology. The student will be introduced to special patient management, review of acid base management and laboratory measurements, blood management therapies and special applications of perfusion techniques. Students not on site will be able to take this course through distant learning and maintain the same pace as student on site. Offered in Fall Semester. Prerequisites: SIM 502, CVPT 502, RES 502, SEM 501, CR 502

Cardiovascular Perfusion Technology IV (CVPT 504)
This course will focus on the professional development of entry level perfusion student. The student will be introduced the development of professional portfolio (CV and cover letter), interviewing for a job,

medical ethics, emergency preparedness as it relates to being a medical professional, quality measures, management techniques, and an extensive review of pharmacology and pathophysiology. Students not on site will be able to take this course through distant learning and maintain the same pace as student on site. Offered in the Spring Semester. Prerequisites: SIM 503, CVPT 503, RES 503

Clinical Rotation I (CR 501)
This course is the first clinical rotation the student will have during their course of study. The student will be introduced to the policies and procedures of the perfusion departments of Vanderbilt University Medical Center and Monroe Carell Children's Hospital at Vanderbilt University and Centennial Medical Center. The course provides the student with an introduction to the preparation and management of cardiopulmonary bypass and extracorporeal circulation procedures under the direct supervision of a clinical instructor. The student will apply their knowledge of anatomy, physiology, pathophysiology, and pharmacology into the assessment of the patient in order to develop a management plan for the patient undergoing cardiac surgery. The student will begin to assist in the operation and management of the cardiopulmonary bypass circuit and will progress through the semester to establish the ability to function in the primary role under the direct supervision of a clinical instructor. The student will be rotating "on call" responsibilities during the week and weekend with their colleagues. Offered in the Spring Semester. Prerequisites: SIM 501, PATHO 501, CVPT 501, PHARM 501, RES 501, A and P 501

Clinical Rotation II (CR 502)
This course is the second clinical rotation the student will have during their course of study. The student will be introduced to the policies and procedures of the perfusion departments of outside of the clinical affiliations in Nashville. The student will be introduced to policies and procedures of outside rotations. This course will continue to build upon the clinical foundation of the student with regards to the preparation and management of cardiopulmonary bypass and extracorporeal circulation procedures under the direct supervision of a clinical instructor. The student will apply their knowledge of anatomy, physiology, pathophysiology, and pharmacology into the assessment of the patient in order to develop a management plan for the patient undergoing cardiac surgery. The student will participate under the direct supervision of the clinical instructor in the operation and management of the cardiopulmonary bypass circuit to establish the ability to function in the primary role. The student will be rotating "on call" responsibilities during the week and weekend with their colleagues. Offered in the Summer Semester. Prerequisites: SIM 502, CVPT 502, RES 502, CR501

Clinical Rotation III (CR 503)
This course is the third clinical rotation the student will have during their course of study. The student will continue to review the diagnostic work-up procedures and apply their knowledge to develop a management plan for the patient undergoing cardiac surgery. Students will continue to be introduced to policies and procedures of clinical affiliations outside of Nashville. The course provides a clinical experience in which the student can consistently perform the primary role in the management of cardiopulmonary bypass and extracorporeal circulation procedures under the direct supervision of a clinical instructor. The student will continue to be evaluated in their development of operative surgical management of cardiopulmonary bypass and other extracorporeal perfusion related management skills. This course will provide the additional experience needed to move the student from level of experienced to competent in the management of cardiopulmonary bypass. The student will be rotating "on call" responsibilities during the week and weekend with their colleagues. Offered in the Fall Semester. Prerequisites: SIM 502, CVPT 502, RES 502, CR502, SEM 501

Clinical Rotation IV (CR 504)
This course is the fourth clinical rotation the student will have during their course of study. The student will show at a minimum competency in all areas of preparation and management of procedures in perfusion techniques are employed. Students not on site will be able to take this course through distant learning and maintain the same pace as student on site. This course provides the clinical experience in which the student can exhibit advanced management of cardiopulmonary bypass and extracorporeal circulation procedures. Although the student is always under the direct supervision, it is the expectation of

this course that the student perform at a level as though unsupervised. Upon completion of this course the student will have completed their required clinical experiences. The student will be rotating "on call" responsibilities during the week and weekend with their colleagues. Offered in the Spring Semester. Prerequisites: SIM 503, CVPT 503, RES 503, CR503

Pathophysiology (PATHO 501)
This course is designed to provide the entry level perfusion student with a course linking anatomy, physiology, pathophysiology and the application of perfusion practice. The course will provide the detailed foundation and skills that are necessary to understand the interplay between the science of extracorporeal technology and the pathophysiologic considerations that play a role in the initiation, maintenance, and termination of extracorporeal circulatory support. Students will understand the basic diagnostic principles involved in determining the nature and extent of the disease process necessitating surgical intervention. Both acquired and congenital heart disease processes will be examined, as well as other pathologies that may present in conjunction with the use of extracorporeal equipment. The course is divided into three pathophysiology sections: blood and coagulation, acquired heart disease, and congenital heart disease. Offered in the Fall Semester.

Pharmacology (PHARM 501)
This course provides the entry-level perfusion student with an emphasis of the overview of cardiovascular pharmacology, to act as a basis for the understanding of the interactions of pharmacologic agents with the cardiac patient. The fundamental principles of pharmacology necessary for an understanding of the mechanisms of action of drugs and knowledge of their rational and effective and monitoring are presented. The student is introduced to the management coagulation cascade and platelet aggregation as it relates to the cardiac patient. Offered in the Fall Semester.

Research Lab I (RES 501)
This course introduces the entry-level perfusion student to circuit components and basic laboratory experiments to reinforce the understanding of circuit components and their specifications. The student will be introduced to writing lab reports and presenting their results. This course will involve both lecture and laboratory time. Offered in the Fall Semester.

Research Lab II (RES 502)
This course provides the student with the fundamental knowledge required to develop and publish scientific articles within the field of perfusion. The students will introduced to evidence based medicine, literature reviews, randomized and observational studies, the techniques to blind studies, specific aims and how to critique the literature. Student will develop a research hypothesis as through the completion of a literature review. Offered in the Spring Semester. Prerequisites: SIM 501, PATHO 501, CVPT 501, PHARM 501, RES 501, A and P 501

Research Lab III (RES 503)
This course provides the student with ability continue to work to identify research topic, well reviewing current literature in the field of perfusion as well as participation in a review course for the preparation of perioperative blood management exam. Students will be exposed to the different platforms for presentation of scientific material. Students not on site will be able to take this course through distant learning and maintain the same pace as student on site. Offered in the Fall Semester. Prerequisites: SIM 502, CVPT 502, RES 502, SEM 501

Research Lab IV (RES 504)
This course will focus on the completion of the required manuscript for satisfaction of the program. The student will be required to meet manuscript deadlines to demonstrate progression towards completion of their manuscript. Students not on site will be able to take this course through distant learning and maintain the same pace as student on site. Offered in the Spring Semester. Prerequisites: SIM 503, CVPT 503, RES 503

Simulation I (SIM 501)
This course prepares the perfusion student for clinical experience as it relates to the identification of circuit components, circuit set-up, and priming of the cardiopulmonary bypass circuit. The instructor is able to focus on the student's development of the psychomotor skills and the application of circuit components. Each student is able to develop their knowledge in circuit design and operation in and environment that promotes confidence in their abilities. Offered in the Fall Semester.

Simulation II (SIM 502)
This course builds upon the skills acquired in SIM 501 and prepares the perfusion student for clinical experience as it relates to the preparation of the circuit for a specific patient, pre-pump procedures (sterile procedure, retrograde autologous priming, and anticoagulation management), initiation of cardiopulmonary bypass, management of cardiopulmonary bypass (anticoagulation, volume management, myocardial preservation, acid base management, and hemodynamic management), venous return and arterial line low occurrence events, and termination of cardiopulmonary bypass. The instructor is able to focus on the student's development of the psychomotor skills, clinical management skills, and the application of conceptual knowledge. Each student is able to develop their knowledge and clinical skills in environment that promotes confidence in their abilities. Students will be exposed to pediatric simulation with the focus on circuit design, set-up, and priming. Students will have two simulation practical', one focusing on the pediatric component and the second focusing on adult CPB case management, and two written exams. Offered in the Spring Semester.
Prerequisites: SIM 501, PAHTO 501, CVPT 501, PHARM 501, RES 501, A and P 501

Simulation III (SIM 503)
This course builds upon the skills acquired in Sim 502. The student is required to continue to demonstrate competency in the skills acquired in Sim 502 with the additional exposure to both common events and uncommon events as they relate to cardiopulmonary bypass management. The student is introduced to catastrophic management protocols. The instructor is able to focus on the student's development of the psychomotor skills, clinical management skills, and the application of conceptual knowledge. Each student is able to develop their knowledge and clinical skills in environment that promotes confidence in their abilities. Student will be exposed to cardiopulmonary bypass management utilizing a centrifugal pump. Offered in the Fall Semester. Prerequisites: SIM 502, CVPT 502, RES 502, SEM 501

Simulation IV (SIM 504)
This course builds upon the skills acquired in Sim 503. The student is required to continue to demonstrate competency in the skills acquired in Sim 503 with the additional exposure to both common events and uncommon events as they relate to cardiopulmonary bypass management with the utilization of a centrifugal arterial pump. The student is introduced to catastrophic management protocols. The instructor is able to focus on the student's development of the psychomotor skills, clinical management skills, and the application of conceptual knowledge. Each student is able to develop their knowledge and clinical skills in environment that promotes confidence in their abilities. Offered in the Spring Semester.
Prerequisites: SIM 503, CVPT 503, RES 503

Seminar in Perfusion (SEM 503)
Students will be exposed to discussions on current practices and techniques utilized in cardiopulmonary bypass. Students will prepare seminar presentations on specific topics in relationship to extracorporeal perfusion. Students will discuss and present cases and problems arising during their clinical experiences in the form of case presentations. Students not on site will be able to take this course through distant learning and maintain the same pace as student on site. Offered in the Summer Semester Prerequisites: SIM 502, CR 501, RES 502, CVPT 502

Grading and Assessment

Didactic Evaluation System

The grading scale for the VUMC Perfusion Program is as follows:

Scale	Grade	Definition	GPA
100–95%	A	Excellent	4.0
94–90%	A-	Excellent	3.7
89-87 %	B+	Good	3.3
86-83%	B	Good	3.0
82-80%	B-	Good	2.7
79-77 %	C+	Satisfactory	2.3
76-75%	C	Satisfactory	2.0
74–0%	F	Inadequate	0.0
	P	Pass -Any course with a "P" grade is not calculated into the grade point average.	
	F	Any course with an "F" grade is not calculated into the grade point average. However, the course must be repeated and passed to graduate.	
	I	An Incomplete may be used at the discretion of the instructor in those cases in which the student is not able to complete work in the normal time. In those instances, the student and instructor develop a written plan for an extension to provide work by a specific date that falls within the period of time specified by the relevant program's requirements (but in no circumstances greater than one month). An "I" that is not replaced by a letter grade within the period of time specified by the relevant program's requirements, due to unsatisfactory completion of the student's plan, will be changed to an F after the period specified by the program (a period not to exceed one month). Any course with an "I" grade is not calculated into the grade point average. Once a grade is assigned to the course (when conditions are met that allow for the removal of the "I" and assignment of a final grade), that grade will factor into the student's GPA.	
	W	A Withdrawal is provided when a student leaves the course due to an approved leave-of-absence or is withdrawn from the school prior to the scheduled completion of a course. Any course with a "W" grade is not calculated into the grade point average.	

Successful completion of a course requires a student to receive a 75% or greater for the final grade for the course. Scores are calculated according to the derivation chart in each syllabus. Students who do not complete required work or hours in a course will be assigned a failing grade for the course.

Final grades for each course are computed on the following bases:

- Students must attain a final grade of 75% in each course in order to maintain Satisfactory Academic Progress.
- Non-academic evaluations (behavior and conduct evaluations) will be completed by instructors for academic advising and/or remediation purposes. While these evaluations are calculated into the grade, behavior/professionalism concerns (e.g., missing of examinations or classes, tardiness, etc.) will have negative consequences for the student's ability to maintain Satisfactory Academic Progress, putting the student at risk of SAP Warning, probation and/or dismissal from the program.

Clinical Evaluation

Student clinical competency is measured by means of a clinical evaluation form. The clinical evaluation form has been designed to address the cognitive, affective, and psychomotor learning domains of the program as well and the interpersonal domain. The form is reviewed by the student and the instructor immediately following each case. If the evaluation consistently shows lack of competency in a particular area of a student's performance, the student will receive increased instruction and practice. Extra simulation sessions facilitated and supervised by the Program Director may be required.

In addition the student will be evaluated on a mid-term evaluation and/or end of rotation evaluation by clinical instructors as outlined in the syllabus of each clinical course. The clinical evaluation scale is as following:

1. Dependent: > 90% of the time the student almost REQUIRES direction, guidance, monitoring, and support, while < 10% of the time the student EXHIBITS assertiveness, efficiency, focus, and eagerness to learn.
2. Novice: 75% of the time the student REQUIRES direction, guidance, monitoring, and support, while 25% of the time the student EXHIBITS assertiveness, efficiency, focus, and eagerness to learn.
3. Assisted: 50% of the time the student REQUIRES direction, guidance, monitoring, and support, while 50% of the times the student EXHIBITS assertiveness, efficiency, focus, and eagerness to learn.
4. Supervised: 25% of the time the student REQUIRES direction, guidance, monitoring, and support, while 75% of the times the student EXHIBITS assertiveness, efficiency, focus, and eagerness to learn.
5. Self-Directed: < 10% of the time the student REQUIRES direction, guidance, monitoring, and support, while >90% of the time the student EXHIBITS assertiveness, efficiency, focus, and eagerness to learn.

Students are expected to make appropriate clinical progress over time, as outlined in each of the clinical courses' syllabus.

Clinical Competence

At the completion of the case requirements for each clinical level – or at any time by the request of the Program Director – the student's clinical performance is evaluated by the members of the Clinical Competency Committee. The student advances to the next clinical level by passing the preceding clinical course.

Satisfactory Academic Progress

In order to maintain Satisfactory Academic Progress through the curriculum plan, the student must achieve a grade of "75%" or better at all times in each course including simulation, research lab courses and clinical rotations. It is recommended that each student monitor his/her own progress according to the course syllabus. Students who do not meet these requirements during the semester will be placed on an academic monitoring with a remedial action plan.

Progression in the Program

The program and all related courses must be completed in their entirety for a transcript to be created and given. Advanced placement is not allowed. All grades of Incomplete must be replaced by a final grade before a transcript can be created. Students are required to complete all components of the program within the 22 months of program matriculation, and in the sequential order as presented in this catalog. The Program Advisory Committee reserves the right to extend a student's training to make up for a deficit in a single course, but this remediation is not to extend training more than five (5) months from the end of the program year.

Graduation Requirements

Students in the VUMC Perfusion Program are required to do the following in order to graduate with a Certificate in Cardiovascular Perfusion Technology:

1. Complete all courses in the Curriculum Plan with a "C" ($\geq$ 75%) or better as outlined in Progression Policy.
2. Complete an independent research paper.
3. Not be on probation at the time of completing the program for any reason (including unprofessional conduct).
4. Pass a comprehensive final examination.
5. Pass an oral examination.
6. Pass a final practical examination.
7. Receive clearance from the clinical competency committee (Note: No student will be given clinical clearance from the program earlier than two weeks prior to graduation independent of the number of clinical cases completed by the student.
8. Participate in exit interview with the Program Director.

National Examination/State Licensure

After successful completion of the course of study, graduates of the VUMC Perfusion Program are eligible to take the national certification examination administered by the American Board of Cardiovascular Perfusion. The certification exam is a two exam process. The first exam is the Perfusion Basic Science Exam (PBSE) and requires the student to have graduated from an accredited perfusion program, completed 75 clinical cases, and be given clinical competency clearance by the program director. The second exam is the Clinical Application in Perfusion Exam (CAPE) in addition to the requirements for the PBSE the applicant must also have completed 40 independent clinical cases after graduation.

It is entirely the students' responsibility to seek guidance from the American Board of Cardiovascular Perfusion regarding the certification process, and it is likewise entirely the students' responsibility to seek guidance from any and all licensing bodies that may impact their practice, either as students prior to graduation, or as practicing perfusionists following graduation.

Certification by the ABCP is a pre-requisite for licensure in all states that currently offer licensure to perfusion care providers. Students graduating from an accredited program will be eligible for a provisional license in those states requiring a license. The permanent license will be granted upon satisfying the certification process.

Student Conduct

In addition to the VUMC Code of Conduct, students in the VUMC Perfusion Program are bound by standards of conduct specific to their profession. Adherence to the VUMC Code of Conduct, the American Board of Cardiovascular Perfusion (ABCP) Code of Ethics, and the American Society of Extracorporeal Technology (AMSECT) Code of Ethics is required of students at all times.

ABCP Code of Ethics

The American Board of Cardiovascular Perfusion (ABCP) is dedicated to the provision of safe, competent medical care for any and all patients. To that end, the ABCP administers certification examinations and monitors recertification, and therefore requires those participating in these credentialing processes to ascribe to the following ethical standards.

I. Each Certified Clinical Perfusionist (CCP) and applicant (or candidate for certification), (hereinafter, referred to as "individual,") shall comply with all existing and future rules, regulations and standards of the ABCP and will bear responsibility for demonstrating compliance with same. An individual is eligible to apply for and maintain certification/recertification only when in compliance with all the ABCP rules, regulations and standards.

If an individual is not in compliance with the ABCP rules, regulations or standards, the ABCP may impose one or more of the following sanctions: deny or suspend eligibility; deny, revoke, refuse to renew, or suspend certification; issue a reprimand; or take other corrective action regarding certification or recertification.

II. The individual shall not willfully fail to promote the safety and welfare of the public, whether through negligent acts, acts of omission or through misrepresentation. Failure to promote public safety and welfare or the provision of safe, competent medical care includes (but is not limited to):

A. impairment of professional performance because of habitual use of alcohol, drugs, or other substance, or any physical or mental condition;

B. gross or repeated negligence or malpractice in professional work;

C. noncompliance with laws related to the profession;

D. failure to maintain a current professional credential as required by the jurisdiction in which the individual practices (this may include a license, certificate, or registration);

E. the conviction of, plea of guilty to, or plea of nolo contendere to a felony related to public health and safety or theprofession; and

F. disciplinary action by a licensing board or professional organization other than the ABCP.

III. The individual convicted of, or pleading guilty or nolo contendere to, a felony directly related to public health and safety or the provision of safe, competent medical care shall be considered ineligible to apply for certification/recertification for a period of one year from the exhaustion of the appeals, proceeds or final release from confinement (if any), or the end of probation, whichever islater. An individual who is incarcerated, or for whom incarceration is pending, as of the application deadline date is ineligible for certification or recertification to the end of incarceration.

Felony convictions considered for this standard include, but are not limited to, fraud, actual or threatened use of a weapon or violence, rape, sexual abuse of a patient or child, or prohibited sale, distribution, possession, or misuse of controlled substances.

IV. The individual shall not engage in unauthorized possession or misuse of the ABCP's credential, examinations, and other intellectual property. The individual shall respect the ABCP's intellectual property rights and comply with the ABCP use of Credential Trademark Policy.

V. The individual shall not misrepresent his/her certification status or misuse any title or membership in any professional organization or community.

VI. The individual shall abide by the ABCP's reasonable test administration rules. The individual shall have had no unauthorized possession of, use of, or access to any examination documents or materials, nor shall the individual receive any unauthorized assistance, copy examination materials, or cause a disruption in the testing area during a test administration or the conduction of any portion of the certification examination. The individual shall not subsequently use or divulge information gained from his/her examination experience

for any reason.
VII. The individual must truthfully complete and sign an application in the form provided by the ABCP, pay the required fees, and provide additional information as requested. The individual shall not make any material misrepresentation of fact during application for certification/recertification. Ineligibility for certification, regardless of when the ineligibility is discovered, is grounds for disciplinary action.
VIII. The individual shall report possible violations of these Ethical Standards and any other development bearing on certification in writing to the Executive Director of the ABCP.

Other persons concerned with possible violation of the ABCP rules are encouraged to contact the ABCP. The person making the complaint should identify him-/herself by name, address, email address, and telephone number. However, the ABCP may consider anonymous complaints.

This report should include information regarding the identity of the person(s) involved in the alleged misconduct with as much specific detailand documentation as possible. The identity of the person making the report must be made known as well as others with knowledge of thefacts and circumstances surrounding the alleged misconduct.

-- Information obtained from the following website: https://abcp.org/pd/ethics.pdf

AMSECT Code of Ethics

Preamble

The purpose of a code of ethics is to acknowledge a profession's acceptance of the responsibility and trust conferred upon it by society and to recognize the internal obligations inherent in that trust. The following paragraphs delineate the standards governing the conduct of members in their professional interactions with patients, colleagues, other health professionals and the general public. Realizing that no code can encompass all ethical responsibilities of the members, this enumeration of obligations in the code of ethics is not comprehensive and does not constitute a denial of the existence of other obligations, equally imperative, and not specifically mentioned herein. This code of ethics shall be binding on the members of this Society.

Canon 1

Members must uphold the dignity and honor of the profession, accept its disciplines and expose without hesitation illegal, unethical and incompetent conduct.

Interpretive Statements

a. Members are part of a collaborative effort to deliver proper health care to the patient under the members' care.
b. The member has a personal, as well as a professional, obligation to protect and safeguard the patients from illegal and/or unethical actions or the incompetence of any person.
c. The member must maintain personal integrity and establish the appropriate means to fully protect his freedom of conscience for the delivery of services to the patient.
d. A member who demonstrates incompetence or illegal conduct as it pertains to this Code of Ethics shall be exposed to the proper authorities.

Canon 2

Members shall respect the patients' rights and dignity and shall uphold the doctrine of confidentiality regarding privileged patient information.

Interpretive Statements

a. Information about the patient's clinical situation will be kept confidential, unless otherwise required by law, in order to protect the welfare of an individual or community. Written guidelines or protocols of an institution or department may be instrumental in deciding the manner in which confidential information is handled for release.

Canon 3

Members shall provide only those services for which they are qualified. Members shall not misrepresent in any manner, either directly or indirectly, their skills, training, professional credentials, identity or services.

Interpretive Statements

a. Members will accept responsibility for the exercise of sound judgment in the delivery of services to the patient and shall be accountable for the quality of the service provided.
b. Members will provide accurate information about the profession, and services they provide, as well as the members' own qualifications.
c. The members shall not engage in practices beyond their competence or training.
d. Members shall not delegate to a less qualified person any activity which requires the unique skill, knowledge and judgment of a formally educated perfusionist. Services rendered by supportive personnel will be under the supervision of a formally educated perfusionist.

Canon 4

Members shall strive to improve their medical knowledge and skills on a continuing basis.

Interpretive Statements

a. Members shall support quality didactic and clinical education.

b. Professional conduct will be maintained toward members' peers, students, medical staff and patients.
c. Members shall participate in educational activities, either by individual study or through continuing education, which will enhance their basic knowledge in order to continue to provide quality health care to the patient.

Canon 5
Members shall maintain and promote high standards for perfusion practice which may include education, research and scientific presentations and/or publications.
Interpretive Statements

a. Members shall protect the rights of patients and animals involved in research and conduct research in accordance with accepted ethical and reporting standards.
b. All members who participate or contribute as an author or investigator will receive proper recognition and responsibility for the data being presented and/or published.
c. The members shall maintain and promote high standards for research, including:
    1. Full public disclosure and/or acknowledgments of support for research.
    2. Avoidance of fraud and plagiarism.
    3. Scientific articles will not be published in more than one journal without referencing the primary publishing journal, and the consent of the editors of all publications must be obtained.
d. Representation of the Society by members should be in writing and/or at the direction of or by the Board of Directors and/or Executive Committee.

Canon 6
A member shall at all times hold the well-being of the patient to be paramount and shall not act in such a way as to bring the member's interests into conflict with the patient's interests. A member shall deliver health care services without regard to race, color, creed, national origin, sex, age, religion, sexual preference or physical and/or mental condition.
Interpretive Statements

a. A member's professional practice and adherence to ethical principles shall take preference over business practices. Members shall place service before material gain.
b. A member should fully disclose to clientele other business practices that may appear as conflict of interest to clientele and/or public. These may include but are not limited to:
    - Consultant for fee
    - Clinical instructor (support staff from industry)
    - Sales representative
    - Technical advisor
    - Lecturer for fee
    - Acceptance of fees, gratuities, funding from industry
c. The American Society of ExtraCorporeal Technology (AmSECT) is the professional society for the cardiopulmonary perfusionist. Its membership encompasses the vast majority of practicing perfusionists. The purpose of the Society is defined in its mission statement: "The mission of AmSECT is to foster improved patient care and safety by providing for the continuing education and professional needs of the extraCorporeal technology community." In that the ultimate concern of the Society is to improve patient care, it is our position that clinicians engaged in the practice of cardiopulmonary bypass are required to and must be allowed to periodically evaluate the equipment which is utilized in cardiopulmonary bypass in the effort of continuously improving patient care which should include not only patient outcomes but safety as well. To this end, AmSECT holds that each perfusionist has the following ethical and professional responsibilities:
    - The perfusionist being the most qualified individual, by training, education, experience, and job description has the responsibility to evaluate, recommend, select, and implement the components of the ExtraCorporeal circuit so that patient safety and care are optimized.

- The perfusionist will always attempt to fairly evaluate all competing products and services, with the principal selection criteria being that of regard for patient safety and well-being.
- The perfusionist shall always base any decision on product and service selection on clinical evaluations and documented clinical and scientific data.
- The perfusionist will not allow the opportunity to arise whereby objective evaluations of products and services are compromised by gratuities, gifts, entertainment, consulting engagements, employment status, or any other material or personal gain.

In conclusion, it is the responsibility of the perfusionist to make decisions regarding the selection of clinical products with the patient as the primary concern.

-- Information obtained from the following website: http://www.amsect.org/page/code-of-ethics

Other Program Policies

Professional Dues
Students are expected to join the national perfusion associations: the American Society of Extracorporeal Technology (Am SECT) and the American Academy of Cardiovascular Perfusion (AACP). Membership in the AmSECT requires completions of a student application and a one-time fee of $15.00. Membership in the AACP requires completion of a student application and an annual fee of $25.00. Students are required to maintain their student memberships during the tenure of the program. These costs are included in the VUMC Center for Programs in Allied Health Estimated Cost of Attendance Table, which appears in this catalog.

Perioperative Blood Management Exam
Students are expected to sit for the Perioperative Blood Management Exam administered by the International Board of Blood Management (IBBM) in the Fall of the Senior Year. The application fee for the exam is $200. The cost associated with this exam as well as the ABCP certification exams to be taken following graduation are included in the VUMC Center for Programs in Allied Health Estimated Cost of Attendance Table, which appears in this catalog.

Professional Conferences
Students are encouraged to submit papers and posters for presentation, participate in student functions, and attend profession conferences. Students will be allowed six (6) days to be used throughout the twenty-two (22) months of the program to attend professional conferences. Students are required to sign the VUMC Perfusion Program Conference Attendance Code of Conduct prior to gaining approval from the Program Director to attend a conference.

Conference Attendance Code of Conduct

- Attend all the scientific sessions and be on time in the morning for the meetings.
- Refuse any dinner or bar tab paid by vendors unless it is a conference sponsored event.
- Dress professional when attending all meetings – business professional.
- Treat all perfusion students from other programs with the utmost respect.
- Know that violation of any of the above rules may result in probation and/or dismissal from the program.
- Be a proud professional representative of the VUMC Perfusion Program in the Center for Programs of Allied Health.

The costs associated with attendance of a professional conference are included in the VUMC Center for Programs in Allied Health Estimated Cost of Attendance Table, which appears in this catalog.

Equipment List in the Simulation Lab

Sarns 8000 Heart Lung Machine
Stockert Heart Lung Machine
Maquet Rotaflow pump
Heamonectics Cell Saver 5 (autotransfusion device)
Cincinnati Sub-Zero Hemotherm Heater/Cooler
Complete set of cardiac surgery surgical instrumentation
Datascope 98XT Intra-aortic balloon pump with trainer
Quest myocardial protection system
Sechrist Blender
Califia Perfusion Simulator with beating heart module and anesthesia module
Biomedicus Centrifugal pump x2
Perfusion pump disposals packs

- Oxygenators (neonatal, pediatric, and adult)
- Tubing
- Filters (arterial, blood, pre-bypass, leukocyte depleting)
- Stopcocks

Various different cannuale (aortic, venous (dual and single stage),
Various disposal oxygenators
Vacuum Regulators
Pressure transducers
DLP Pressure Monitor and disposables
Patient chest cavity

This catalog contains only a summary of program policies and procedures. Students should refer to the program handbook for additional information.

VANDERBILT UNIVERSITY MEDICAL CENTER
CENTER FOR PROGRAMS IN ALLIED HEALTH
CATALOG APPENDICES

Appendix A – Acceptable Use Policy (Computer Policy)

Appendix B – Social Media Policy

Appendix C – VUMC Authentication to Electronic Systems and Applications Policy

Appendix D – VUMC Dress Code and Personal Appearance Policy

Appendix E – Alcohol and Drug Use Policy

Appendix F –Policy on Possession of Firearms & Weapons

VANDERBILT UNIVERSITY MEDICAL CENTER

Policy: Acceptable Use Policy

Category	Information Mgmt.
Approval Date	May 2017
Effective Date	May 2017
Supersedes	New

Applicable to

☒ VUMC

Team Members Performing

☒ All faculty & staff ☐ Faculty & staff providing direct patient care or contact ☐ MD ☒ House Staff ☐ APRN/PA ☐ RN ☐ LPN

☐ Other:

Responsible Committee

☒ Information Privacy and Security Executive Committee

☒ Compliance and Corporate Integrity Committee

Content Experts

Lead Author: Andrew Hutchinson, VUMC IT Leaders

I. Purpose:

To achieve its mission, VUMC applies substantial financial and personnel assets toward operating a reliable, available and secure network-computing infrastructure. The mass adoption of digital technologies in the everyday lives of members of our community requires VUMC to establish clear policies that guide how community members may use VUMC's information technology resources. This Acceptable Use Policy (AUP) communicates the respective policies associated with our role in the VUMC community as students, faculty, staff or other authorized users.

II. Scope:

This policy applies to all Vanderbilt University Medical Center Workforce Members (See References, IM SOP - Defined Terms Used in Information Management Policies) using VUMC computing resources whether individually controlled or shared, stand-alone or networked. It applies to all computer and communication facilities owned, leased, operated, or contracted for by VUMC. Information technology resources include but are not limited to VUMC's Internet 1, Internet 2, private networks, telephone, fax, voice mail, electronic mail, instant messaging, electronic collaboration, content management, or other applications that attach, utilize, or otherwise interface with VUMC's data and voice network

computing infrastructure. Electronic communications include but are not limited to any information–data, text, graphics, audio, video, or other artifact–that can be sent or received via an electronic system or manipulated or transferred via the network computing infrastructure or an attached device or peripheral.

III. Policy:

VUMC's information technology resources are used to promote the core mission of VUMC in patient care, education, research and scholarship, and service, either directly or through the various administrative entities and services that enable VUMC's core mission. To that end, the policy has the following goals:

A. That the integrity, reliability, availability and performance of information technology resources are protected;

B. That information technology resources are used for their intended purposes; and

C. That the use of information technology resources is consistent with the principles, values, legal and regulatory obligations that govern use of other VUMC facilities and services.

IV. Requirements and Responsibilities:

A. Privacy, Integrity, and Operational Security

The privacy of all users and the integrity and operational security of VUMC's information technology system must be respected by all. VUMC's IT resources must not be used by anyone to gain or attempt to gain unauthorized access to private information, even if that information is not securely protected or is otherwise available. The fact that an individual account and its data may be unprotected does not confer either an ethical or legal right to access it.

1. Investigations of misuse, unauthorized use, or illegal activity, compliance with federal, state or local laws or regulations, as well as routine or emergency maintenance of the IT system, may require observation of electronic information by appropriate and authorized VUMC officials, employees, or their authorized agents. Such activities are not in violation of this principle so long as these activities are conducted by authorized individuals on behalf of VUMC and are governed by professional IT forensic protocols. VUMC uses automated systems to monitor data transmissions entering and leaving VUMC's networks to detect the presence of viruses, malicious software, or privileged information.

2. Unauthorized access to private information constitutes a violation of this policy, and may result in disciplinary actions under the Faculty Manual, House Staff Manual, HR policies, or other applicable policy statements. Violation of this principle may also constitute a violation of state or federal law.

B. Use

Use of VUMC's network computing and electronic communications infrastructure comes with certain responsibilities and obligations.

1. **Unlawful Use**

Tennessee and federal laws provide for civil and criminal penalties for violations of the law of systems use. Examples of unlawful actions include, but are not limited to, defamatory remarks, destruction of VUMC data or equipment, unauthorized copying of copyrighted material and the transportation of obscene materials across state lines. Any use of VUMC network computing assets by anyone in the organization that violates state, federal, or local laws is prohibited.

2. **Violation of Institutional Policies**

VUMC's academic departments, clinical operations, and administrative areas maintain policies that govern and inform our day-to-day lives in the conduct of our VUMC experience. Any use of VUMC network computing assets that violates applicable institutional policies is prohibited.

C. Fiduciary Responsibilities

1. **VUMC Workforce Members**

VUMC Workforce Members possess a great personal responsibility to themselves and to other community members to utilize technology while maintaining their fiduciary responsibilities. These responsibilities include, but are not limited to:

a. Being responsible for the security of one's personal information;
b. Protecting personal and private information of others; and
c. Taking care to minimize risks of various undesirable events, such as disclosure of sensitive personal information,

identity theft, and even threats to personal safety when using VUMC information technology assets.

2. Individuals in Trusted Roles

   a. Some VUMC Workforce Members are granted elevated or privileged access to VUMC's information and information systems. These Workforce Members' job duties require access to VUMC Confidential Information in order to:

      i. Provide legal or risk management advice to the institution;

      ii. Perform internal audits, investigations, or compliance reviews;

      iii. Perform leadership duties; or

      iv. Design, build, implement, support, or maintain information systems and/or information technology.

   b. This privileged access places the VUMC Workforce Member into a Trusted Role, which indicates a higher level of institutional trust and responsibility. To maintain this level of trust, VUMC Workforce Members in a Trusted Role must develop, maintain, and continually enhance their skills and abilities on behalf of those they serve. These VUMC Workforce Members in a Trusted Role must strive to be trusted and highly skilled custodians through:

      i. Preserving confidentiality;

      ii. Protecting data and information integrity;

      iii. Establishing and maintaining availability of information systems;

      iv. Educating those around them about IT and social risks related to information systems;

      v. Enhancing and maintaining technical skills; and

      vi. Demonstrating an understanding of the areas they serve.

D. Intellectual Property

At the heart of any academic or research endeavor resides the concept of intellectual property. All copyrighted information (text, images, icons, programs, video, audio, etc.) retrieved from computer or network resources must be used in compliance with applicable copyright and other law. Copied material must be properly attributed. Plagiarism of digital information is subject to the same sanctions as apply to plagiarism in any

other media. Acquiring or sharing copyrighted materials without obtaining the appropriate licenses or permissions may be unlawful.

E. Publication or Distribution of Unauthorized Recordings, Photos, Images, Text or Video

With the availability of low cost cameras, smart phones, and consumer electronics, it is possible for someone to acquire voice, video images, still images, multimedia, or text in non-public situations without the knowledge or consent of all parties. VUMC network computing assets must not be used by anyone in the organization to publish or distribute this type of material without the expressed consent of all involved parties.

F. Right to Copy and Inspect for Legal, Regulatory, and VUMC Purposes

VUMC is committed to protecting the privacy of faculty, students, staff, patients, and other users of its IT resources, and their electronic communications. However, because VUMC operates subject to compliance with various federal and state laws and regulations and must be able to enforce its own policies, VUMC must occasionally inspect, preserve and produce records to fulfill legal obligations and to carry out internal investigations. VUMC reserves the right to obtain, copy, and convey to outside persons any records or electronic transactions completed using VUMC information systems in the event it is required by law or institutional policy to do so. VUMC may also in its reasonable discretion, when circumstances require, obtain and review any records relevant to an internal investigation concerning compliance with VUMC rules or policies applicable to faculty, staff, or to all others granted use of VUMC's information technology resources. Users therefore should not expect that records created, stored or communicated with VUMC information technology or in the conduct of VUMC's business will necessarily be private. VUMC reserves its right to any work product generated in the conduct of its business.

G. Locally Specific Policies

Individual units within VUMC may create additional policies for information resources under their control. These policies may include additional detail, guidelines and further restrictions but must be consistent with principles stated in this policy document. Individual units adopting more specific policies are responsible for establishing, publicizing and enforcing such policies, as well as any rules governing the authorized and appropriate use of equipment for which those units are responsible.

V. Disclosures:

A. All members of the VUMC Workforce Members are given notice of this policy by virtue of its publication and are subject to it on the same basis. Ignorance of this policy does not relieve any user of his or her responsibilities under the policy. All Workforce Members are expected to familiarize themselves with the contents of this policy and act in conformance with these principles regarding any use of VUMC's IT resources.

B. Due to the rapid nature of change in both information technologies and their applications, VUMC may amend this policy whenever deemed necessary or appropriate. Users are encouraged to periodically review this policy in order to understand their rights and responsibilities under it.

VI. Endorsement:

Information Privacy and Security Executive Committee	April 2017
Compliance and Corporate Integrity Committee	May 2017

VII. Approval:

John Manning 5/15/2017
Chief Operating Officer of Vanderbilt University Medical Center

Wright Pinson, MD 5/15/2017
Deputy CEO, Vanderbilt University Medical Center

VIII. References:

VUMC Policy Manual. (2017). Retrieved from https://vanderbilt.policytech.com.

Information Management Category
IM SOP - Defined Terms Used in Information Management Policies

Policy Title/Number:	Social Media Policy and Guidelines	OP 10-10.30
Manual:	Operations Policy Manual	
Categories:	Information Management	
Contributors:	Jill Austin, Chief Marketing Officer Cynthia Manley, Associate Director Betsy Brandes, Dir of Creative Services & Web Development Lynne Hutchison, Dir of Communications Donna Arkins, Web Manager Melanie Moran, Associate Dir, News Service Ryan Huber, Web Designer/Developer Shana Hartman, Marketing Specialist Wayne Wood, Executive Dir of New Media Productions Susie Lyons, Manager, Employee Programs John Howser, Deputy Dir, Med Ctr News and Public Affairs Michele Toungette, Chief Business Development Officer Anna Belle Leiserson, Web Coordinator, VICC	
Review Responsibility:	Operations Policy Committee	
Effective Date:	NEW – January 2010	
Last Revised Date:		

Team Members Performing:
__X__ All faculty and staff
_____ All faculty and staff providing direct patient care or contact
_____ MD
_____ RN
_____ LPN
_____ VUSN/VUSM students
_____ Other licensed staff (specify): _____
_____ Other non-licensed staff (specify): _____
_____ Not Applicable

Guidelines Applicable to:
__X__ VUH
__X__ VMG*
__X__ Children's Hospital
__X__ VPH
__X__ VUSM
__X__ VUSN
_____ Other (specify): _____
_____ Exceptions (specify): _____
_____ Not Applicable
* Includes satellite sites unless otherwise specified.

Specific Education Requirements: Yes No X Not Applicable

Physician Order Requirements: _____Yes _____No __X__ Not Applicable

SOCIAL MEDIA POLICY AND GUIDELINES

I. Outcome Goal:

To provide guidelines outlining how Vanderbilt University Medical Center (VUMC) supports institutional communication goals.

II. Policy:

VUMC offers support of institutional communication goals, as well as provides social computing guidelines for VUMC faculty and staff engaging in online discourse and identifying themselves with VUMC.

This policy is not intended for internet activities that do not associate or identify a faculty or staff member with VUMC, do not use Vanderbilt email addresses, do not discuss VUMC and are purely about personal matters.

III. Definitions:

Content owners, for the purpose of this policy, are those assigned the responsibility of maintaining, monitoring, and moderating a VUMC social media platform. Official communications refer to those done in VUMC's name, (e.g. a Vanderbilt Diabetes Facebook page).

A. Content Owner – Assigned by department as the individual responsible for monitoring and maintaining web content.

B. Moderator – Assigned by Content Owner and/or department as the individual for moderating comments and postings by internal and external users, including deleting comments and posting that do not meet the criteria set forth in this policy.

C. Social Media Platforms – Technology tools and online spaces for integrating and sharing user-generated content in order to engage constituencies in conversations and allow them to participate in content and community creation. Examples are Facebook, Twitter, LinkedIn and YouTube.

IV. Specific Information:

A. Official Institutional Web 2.0 Communications:

1. Because of the emerging nature of social media platforms these guidelines do not attempt to name every current and emerging platform. Rather, they apply to those cited and any other online

platform available and emerging including social networking sites and sites with user-generated content. Examples include but are not limited to the following:

a. You Tube
b. Facebook
c. iTunes
d. LinkedIn
e. Twitter
f. Blogs
g. Social media content that is hosted internally and protected by VUNet ID/Password

2. Institutional representation via online social media platforms can only be initiated and authorized through the efforts of the VUMC Marketing, News & Public Affairs (NPA), Vanderbilt University School of Medicine (VUSM), and/or Vanderbilt University School of Nursing (VUSN) Communications departments. There can be no official VUMC sites or pages on You Tube, Facebook, Twitter, etc. unless they are developed or authorized by the VUMC Marketing, NPA, VUSM and/or VUSN Communications departments. Any sites or pages existing without prior authorization as required above will be subject to review when discovered and may be amended or removed.

3. VUMC official sites on social media platforms can have pages or content areas that are assigned to departments, divisions or programs at VUMC. These policies apply to such pages, as well as content maintained by VUMC Marketing, NPA, VUSM and/or VUSN.

4. Content Owners, as named by their departments or department's leadership, are responsible for posting and using content and maintaining compliance with VUMC Credo behavior, HIPAA (Health Insurance Portability and Accountability Act) and policies related to Conflict of Interest, Privacy, Security, Safety and Human Resources, and FERPA (Federal Education Records Protection Act).

5. Content Owners are responsible for monitoring and maintaining web content as follows:

a. Content is current and accurate.

b. Content Owners engage in communications that are acceptable in the VUMC workplace and respect copyrights

and disclosures. Proprietary financial, intellectual property, patient care or similar sensitive or private content may not be revealed.

c. Content Owners are responsible for gaining the expressed consent of all involved parties for the right to distribution or publication of recordings, photos, images, video, text, slideshow presentations, artwork and advertisements whether those rights are purchased or obtained without compensation.

d. Content Owners are responsible for constantly monitoring postings and comments to social media sites, and for deleting postings that do not adhere to our policies.

6. Content Owners and/or Moderators sign a Content Owner/Moderator Terms and Agreement Form. This form is renewable annually and will be monitored by the VUMC Marketing, News & Public Affairs (NPA), Vanderbilt University School of Medicine (VUSM) and/or Vanderbilt University School of Nursing (VUSN) Communication departments (see Appendix A).

7. My Health at Vanderbilt is a secure communications portal that is the authorized channel to support email and dialogue with patients and their clinical care providers.

B. Guidelines for Online Professional or Personal Activity:

Online social media allow VUMC faculty or staff to engage in professional and personal conversations. These guidelines apply to faculty and staff **who identify themselves with VUMC and/or use their Vanderbilt email address** in social media venues such as professional society blogs, LinkedIn, Facebook, etc. for deliberate professional engagement or casual conversation.

1. Follow the same VUMC Credo behavior, HIPAA, Conflict of Interest Policy, Privacy and general civil behavior guidelines cited above including respecting copyrights and disclosures, and not revealing proprietary financial, intellectual property, patient care or similar sensitive or private content.

2. If faculty/staff identify themselves as a member of the VUMC faculty or staff in any online forum and/or use their Vanderbilt email address, faculty/staff make it clear that they are not speaking for VUMC, and what they say is representative of their individual

personal views and opinions and not necessarily the views and opinions of VUMC.

3. Faculty and staff are thoughtful about how they present themselves as a VUMC faculty or staff member in online networks. By virtue of self identifying as part of VUMC in such a network, faculty/staff connect themselves to, and reflect upon, VUMC colleagues, managers and even VUMC patients and donors.

4. Remember that all content contributed on all platforms becomes immediately searchable and can be immediately shared. This content immediately leaves the contributing individual faculty/staff members' control forever.

5. If someone or some group offers to pay faculty/staff for participating in an online forum in their VUMC role, offers advertising for pay and/or for endorsement, this could constitute conflict of interest and VUMC policies and guidelines apply.

6. If someone from the media or press contacts faculty or staff about posts made in online forums that relate to VUMC in any way, faculty/staff alert their manager/leadership and contact News & Public Affairs before responding.

7. Job postings follow Vanderbilt's Human Resources (HR) established processes. Social Media may not be used in place of HR processes.

8. Marketing, News & Public Affairs, VUSM and VUSN provides some official VUMC and/or VUSM and VUSN information that can be appended to social media sites. (See Appendix B).

V. Web References:

Operations Policy Manual. Retrieved online October 28, 2009 from
https://mcapps.mc.vanderbilt.edu/E-Manual/Hpolicy.nsf?OpenDatabase
OP 30-10.02 Conflict of Interest – Conflict of Commitment
OP 10-40.01 Confidentiality of Protected Patient Information
OP 10-40.32 Sanctions for Privacy and Information Security

Human Resources Policy Manual. Retrieved October 28, 2009 from
http://hr.vanderbilt.edu/policies/index.htm
HR-025 Electronic Communication Policy

Social Media Toolkit for VUMC. Retrieved October 28, 2009 from
http://www.mc.vanderbilt.edu/socialmediatools

VUMC Compliance Website. Retrieved online October 28, 2009, from www.mc.vanderbilt.edu/compliance/indexhome.html
Vanderbilt University Staff Conflict of Interest and Commitment Policy

VUMC Privacy Office Website. Retrieved October 28, 2009 from http://www.mc.vanderbilt.edu/root/vumc.php?site=hipaaprivacy&doc=11584

VI. Endorsements:

Operations Policy Committee	September 2009
Medical Center Medical Board	December 2009
Kevin Churchwell, MD Executive Director & CEO, VCH	December 2009
Larry Goldberg Executive Director & CEO, VUH	December 2009
David Posch CEO, The Vanderbilt Clinic	December 2009

VII. Approvals:

Colleen Conway-Welch, Dean School of Nursing	January 2010
Marilyn Dubree, RN, MSN Executive Chief Nursing Officer	December 2009
C. Wright Pinson, MBA, MD Deputy Vice Chancellor for Health Affairs CEO of the Hospitals and Clinics for VUMC	December 2009
David S. Raiford, MD Associate Vice Chancellor for Health Affairs Senior Associate Dean for Faculty Affairs	December 2009

AppendixA

Vanderbilt University Medical Center
Social Media Content Owner/Moderator Terms and Agreement

1. Each Content Owner/Moderator is familiar with, and agrees to comply with Vanderbilt University Medical Center's Social Media Policies and the guidelines listed in the Vanderbilt University Medical Center Content Owner/Moderator Terms and Agreement Form.

2. To prevent stagnant conversation, social media content is refreshed at least weekly.

3. To utilize social media efficiently, all social media platforms should have a specific purpose and topics should be relevant to the mission of VUMC.

4. All comments are moderated. Comments that are obscene, defamatory, profane, libelous, threatening, harassing, abusive, hateful or embarrassing to another person or any other person or entity are not approved. Owner/Moderator agrees to take all reasonably possible steps to prevent and eliminate non-approved comments and understand that it may be necessary to discontinue the use of the social media if such comments cannot be eliminated or prevented.

5. The following disclaimer is posted on all internal sites:

    a. *Please remember that all laws and Vanderbilt University Medical Center policies apply, including but not limited to Privacy, HIPAA, Security and Safety, and VERITAS. We suggest that you take time to review these polices. Please consult your manager if you have questions about the appropriateness of your comment.*

6. The following Tips section is posted on all internal blog sites:

    a. ***A few tips:***
        i. Be brief.
        ii. Feel free to disagree in a respectful manner.
        iii. *Please sign your comments (remember, in many cases your VUnet ID will show up automatically.*

7. The social media participation guidelines in appendix B are posted or linked to on all external VUMC sites.

8. Any threats to harm a person or one's self are immediately addressed by notifying the Vanderbilt Chief of Police (contact information below).

a. If a comment violates any law or Vanderbilt University Medical Center policy, it is forwarded to the appropriate contact from the following list:

Issue/Topic	Reviewer	E-Mail	Title
Privacy/HIPAA	Privacy Office	Gaye.smith@vumc.org	Privacy Office
Security	August Washington	august.washington@vumc.org	Chief of Police
Risk Management	Sandy Bledsoe	sandy.bledsoe@vumc.org	Executive Dir Risk & Insurance Mgmt
Ethics	Dr. Robert Ossoff	robert.ossoff@vumc.org	Compliance Officer
Employee Issue	Veronica Burns	veronica.w.burns@vumc.org	Senior Director, Human Resources
Legal	Julia Morris	julia.c.morris@vumc.org	Deputy General Counsel
	Kevin Davis	kevin.davis@vumc.org	University Counsel
Information Security	Monroe Wesley	monroe.wesley@Vumc.org	Director, Regional Informatics Security

As the content owner/ moderator of the _____ Vanderbilt University Medical Center _____, I, _____, agree to maintain compliance with the above terms and agreements. I understand that my position as the content owner/ moderator of said social media platform can be terminated or suspended at any time.

Name_____ Signature _____

Date _____

AppendixB

Social Media Participation Guidelines

Thank you for participating with Vanderbilt University Medical Center in social networking communities such as Twitter, YouTube and Facebook.
We ask that you treat others with respect, even if disagreements occur. Please do not post material that could be considered an infringement on the rights of others. Vanderbilt reserves the right to delete postings, or block users, that it deems to be slanderous, obscene, soliciting, or threatening.

Remember that these are public forums and whatever information you share will be viewed by others. Consider this carefully before posting detailed personal medical information. Vanderbilt has no control over the policies and practices of these third party sites. Once you leave www.VanderbiltHealth.com, www.mc.Vanderbilt.edu, or any of its related sites you are subject to the policies of those sites.
The information provided by Vanderbilt University Medical Center on these platforms is intended for educational purposes only. It is not intended as an endorsement, or a substitute for professional medical advice, diagnosis, or treatment.

If you are an employee of Vanderbilt University Medical Center, please remember that all laws and Vanderbilt policies apply, including but not limited to Privacy, HIPAA, Security and Safety. We suggest that you take time to review these polices. Please consult your manager if you have questions about the appropriateness of your comment.

By participating with Vanderbilt University Medical Center in social networking communities, you agree to indemnify Vanderbilt University Medical Center against any damages, losses, liabilities, judgments, costs or expenses arising out of a claim by a third party relating to any posts you have made.

VANDERBILT UNIVERSITY
MEDICAL CENTER

Policy: Authentication to Electronic Systems and Applications

Category	Information Mgmt.
Policy Number	IM 10-30.28
Approval Date	September 2014
Effective Date	September 2014
Supersedes	New

Applicable to

☒ VUMC

Team Members Performing

☒ All faculty & staff ☐ Faculty & staff providing direct patient care or contact ☐ MD ☒ House Staff ☐ APRN/PA ☐ RN ☐ LPN

☒ Other: Students

Responsible Committee

☐ Administrative Operations Committee
☐ Clinical Operations Committee
☐ Clinical Practice Committee
☐ Quality Steering Committee
☐ Pharmacy, Therapeutics, and Diagnostics Committee
☐ Health Record Executive Committee
☒ Information Privacy and Security Executive Committee
☐ Medical Center Safety Committee

Content Experts

Lead Author: Gaye Smith - Chief Administrative Officer, Center for Health Information Management
Linda Campbell - VUIT Security
Terri Hartman - Director, Privacy Office

I. Purpose:

To define the requirements and methods for authentication to confirm the identity of an individual requesting access to Vanderbilt University Medical Center (VUMC) electronic systems and/or applications.

II. Policy:

Vanderbilt University Medical Center (VUMC) requires an assigned digital representation for individuals through a unique username. Authentication of individuals to electronic systems and applications require, at a minimum, a password. Access to certain electronic systems and applications (such as applications containing identifiable patient information) may require a stronger form of authentication.

III. Definitions:

A. Authentication: The process of confirming the identity (assigned digital representation) of an individual or software program. (VUMC Glossary - Authentication)

B. Biometric Factor: Unique personal data (such as a fingerprint, iris scan, or facial recognition) used in an authentication protocol to confirm identification. (VUMC Glossary - Biometric Factor)

C. Card Reader: USB proximity readers physically attached to a computer required to provide necessary power to activate the transponder embedded in the Vanderbilt Card. (VUMC Glossary - Card Reader)

D. Lockout: Occurs when the screensaver is activated and hides the applications running on a workstation. The Lockout is initiated by affirmative action by the user or after a specified period with no keyboard action or mouse movement. (VUMC Glossary - Lockout)

E. Security Token: An electronic device that generates dynamic unique sequencing digits (password) used with an individual's PIN for authentication. VUMC uses SecurID Token manufactured by RSA Security. (VUMC Glossary - Security Token)

F. Strong Authentication: A procedure based on the use of two or more of the following elements categorized as knowledge, ownership, and inherence: (i) something only the user knows, e.g. static password, , personal identification number (PIN) or response to a challenge question; (ii) something only the user possesses, e.g., an assigned device or token or smart card; (iii) something the user is, e.g., biometric characteristic, such as a fingerprint or iris scan. In addition, the elements selected must be mutually independent, i.e., the breach of one does not compromise the other(s). (VUMC Glossary - Strong Authentication)

G. Vanderbilt Card with Reader Capabilities: A VUMC identification badge embedded with a passive proximity transponder configured to provide individual computer user names to electronic systems and/or applications. (VUMC Glossary - Vanderbilt Card with Reader Capabilities)

IV. Specific Information:

Authentication factors are separated into categories of something one knows, something one has, and something one is.

A. User name and password (something the user knows):

1. Each individual granted access to VUMC systems and/or applications is assigned one or more unique user name(s) and password(s) and/or PIN(s).

2. Each individual is accountable for the confidentiality and integrity of the password or PIN associated with each assigned user name.

3. Sharing a password (or PIN) or working under another user's identification is prohibited.

B. Vanderbilt Card with Card Reader (something the user has):

1. VUMC employs the use of the Vanderbilt Card used in conjunction with a Card Reader and an individual's PIN as the preferred method of two-factor authentication.

2. Only one Vanderbilt Card is issued to any authorized individual. Temporary or duplicate badges are not issued.

3. Each individual is accountable for the security of the issued Vanderbilt Card, and the badge is not to be loaned, shared or given to anyone else to use.

4. Each individual issued a Vanderbilt Card creates a four-digit PIN to be used in conjunction with the badge. Use of four identical or four consecutive digits (e.g., 1234 or 1111) as a PIN is not permitted. Do not use the last four digits of your social security number or your date of birth (e.g., 0410 for April 10th) as a PIN.

5. The user is expected to tap their Vanderbilt Card to the Card Reader as he or she leaves a device to initiate the Lockout.

6. A lost or stolen Vanderbilt Card is reported by the assigned user to the VUMC Help Desk as soon as the loss is discovered.

C. Security token (something the user has):

1. When strong authentication is required and the Vanderbilt Card and Card Reader solution is not a suitable solution, VUMC employs the use of a SecurID Token from RSA Security.

2. Each individual is accountable for the security of the issued SecurID Token and the Token is not loaned, shared or given to anyone else to use.

3. Each individual issued a Token creates a four-digit PIN associated with the individual's user name and used in conjunction with the password generated by the Token.

4. A lost or stolen Security Token is reported by the assigned user to the VUMC Help Desk as soon as the loss is discovered.

D. Biometric factor (something the user is):

1. Certain applications require an authentication protocol that utilizes a biometric factor (e.g., AccuDose-Rx® dispensing cabinets).

2. A unique user name and password or PIN is used in conjunction with the biometric factor.

V. Endorsement:

Information Privacy and Security Executive Committee	June 2014
Medical Center Medical Board	September 2014
Luke Gregory Executive Director and CEO Monroe Carell Jr. Children's Hospital at Vanderbilt	9/9/2014
David Posch CEO, Vanderbilt University Hospital and Clinics Executive Director, Vanderbilt Medical Group President, Vanderbilt Integrated Providers	9/9/2014

VI. Approval:

Marilyn Dubree RN, MSN, NE-BC Executive Chief Nursing Officer	9/16/2014
Linda D. Norman RN, DSN, FAAN Valere Potter Menefee Professor of Nursing Dean, Vanderbilt University School of Nursing	9/9/2014
C. Wright Pinson MBA, MD Deputy Vice Chancellor for Health Affairs Senior Associate Dean for Clinical Affairs CEO of the Vanderbilt Health System	9/9/2014
David Raiford MD Associate Vice Chancellor for Health Affairs	9/16/2014

Senior Associate Dean for Faculty Affairs

VII. References:

Department of Health and Human Services, Federal Register. (2014). Health Insurance Reform: Security and Standards; Final Rule, 45 CFR Parts 160, 162, and 164. Retrieved from http://www.hhs.gov/ocr/privacy/hipaa/administrative/securityrule/securityrulepdf.pdf

Vanderbilt Information Privacy and Security website. (2014). Retrieved from http://www.mc.vanderbilt.edu/root/vumc.php?site=InfoPrivacySecurity&doc=23338

Vanderbilt Card PIN Use

VUIT Identity Operations website. (2014). Retrieved from http://www.mc.vanderbilt.edu/root/vumc.php?site=sam

VUMC Policy Manual. (2014). Retrieved from https://vanderbilt.policytech.com.

Clinical Category:
Automated Medication Dispensing Cabinets
Information Management Chapter:
Authorization and Access to Electronic Systems and Applications

Vanderbilt University Medical Center
Policy: Dress Code and Personal Appearance

I. Outcome Goal: To convey a professional appearance to patients, visitors, and co-workers.

II. Policy: All staff working with patients or patients' families or in public areas are expected to dress in a professional manner. The department director determines the appropriate dress for staff, taking into considerations safety and business function of the department.

III. Specific Information:

A. Identification badges are worn in clear sight above the waist with name, title, and picture clearly visible (excluding Department of Security Police).
B. Apparel must be clean, neat and in good condition.
C. Hair should be clean, neatly trimmed and contained in such a manner that it does not come in contact with the patient or visitors.
D. As specified by Occupational, Safety, and Health Administration (OSHA) standards, personnel providing direct patient care wear socks or stockings and shoes with impermeable enclosed toes. Shoes are constructed of an impervious, non-absorbent material, clean and in good repair.
E. When staff's clothing or uniform becomes contaminated while on duty with blood, body fluids or hazardous chemicals, staff exchange their soiled clothing for scrubs per Safety policy SA 60-10.02 Handling Contaminated Clothing.
F. Lab coats or white uniforms may be worn by nursing and allied health personnel only. Colored jackets may be worn by reception staff.
G. No perfume/cologne/scents are worn in clinical care areas and areas that patient congregate.
H. Fingernails are kept clean, well-cared for, and no longer than ¼ inch from fingertip in length. Artificial and long natural fingernails are not permitted for those providing direct patient care. The definition of artificial fingernails includes, but is not limited to, acrylic nails, all overlays, tips, bondings, extensions, tapes, inlays, and wraps. Nail jewelry is not permitted. Nail polish, if worn, is well maintained. Chipped nail polish is not allowed.
I. The following are not allowed:
    a. Faded, torn, ripped, or frayed clothing;
    b. Midriff or off-the-shoulder blouses, sweaters, or dresses;
    c. Tight, sheer, or revealing clothing;
    d. Clothing with advertisement, sayings, or logos, with the exception of unit-approved VUMC apparel when worn as part of the uniform;
    e. Spaghetti strap or strapless shirts or dresses;
    f. Denim jeans;
    g. Shorts or sports attire, unless part of unit-approved VUMC uniform;
    h. Hats, caps, bandanas, plastic hair bags/shower caps (particularly worn within buildings), unless for medical condition or safety purposes, or established religious customs; 9. Visible body piercing/jewelry except for ears;
    i. Visible or gross tattooing on face, neck, arms, or hands; tattoos 1" in size – graphic/disturbing, e.g., displaying violence, drugs, sex, alcohol, tobacco products.

IV. **Note:** More restrictive unit/departmental-specific dress code and appearance policies may supersede this policy.

Vanderbilt University Medical Center
Policy: Alcohol and Drug Use

Purpose: To provide a safe and productive workplace free of substance abuse.

Policy: Unauthorized use or possession of alcohol, controlled substances or the use or possession of illegal drugs is prohibited on Vanderbilt University Medical Center (VUMC) premises or during VUMC-sponsored activities. In addition, this policy prohibits the unlawful manufacture, dispensing, or distribution of illicit drugs and alcohol by staff on VUMC premises, while conducting VUMC business off the premises, or as part of any VUMC-sponsored activities, including any activity with a federal grant.

Faculty, staff, or house staff whose work performance or behavior suggests the influence of such drugs or intoxicants may be required to submit to drug or alcohol testing.

Definitions:

A. EAP: Employee Assistance Program.
B. FPWP: Faculty and Physician Wellness Program.
C. Faculty: All those who have faculty appointments in the School of Medicine or the School of Nursing and/or practicing at Vanderbilt, regardless of compensation from Vanderbilt.
D. House Staff: All interns, residents, and fellows.
E. House Staff Supervisor: Director, Graduate Medical Education or designee.
F. NWP: Nurse Wellness Program.
G. Supervisor of Faculty: Dean or Departmental Chair.
H. Supervisor of Staff: Division Head or Department Chair or their designee.

Specific Information:

A. The unauthorized use or possession of alcohol, controlled substances or the use or possession of illegal drugs is governed by Human Resources policy, HR - Drugs and Alcohol. Faculty are governed by the Faculty Manual and Medical Staff Bylaws. House staff are governed by the House Staff Manual (see References).
B. Some situations that may require drug and/or alcohol testing are:
    1. Unusual behavior such as slurred speech or unusual energy levels for which an explanation is not apparent;
    2. Unusual drug administration procedures or documentation, including those as noted by a review from the Pharmacy staff; and/or
    3. Reports by coworkers of unauthorized drug and/or alcohol use or being under the influence on the job.
C. When in the judgment of the supervisor, counseling is not an appropriate immediate intervention and the behavior or work performance of faculty house staff or staff member gives rise to performance-related concerns that indicate a need for drug and/or alcohol testing, the supervisor follows these procedures:
    1. Immediately relieves the employee of assigned responsibilities; and advises the employee of the performance-related concern.
    2. If a staff member is involved, the supervisor consults with their HR business partner regarding appropriate action to be taken.
    3. If testing is done, the supervisor or designee escorts the faculty, house staff, or staff member to Occupational Health Clinic (OHC) between the hours of 7:30 a.m. and 5:30 p.m.

4. If testing is needed after regular work hours, the supervisor contacts the Emergency Department (ED) triage nurse or attending physician prior to escorting the individual to the ED; and
5. Provides the ED triage nurse background information regarding the individual's behavior as well as a telephone number for locating the supervisor, if necessary. The individual is examined by an ED attending physician who orders the appropriate screening tests according to ED protocol. Every effort is made to maintain the confidentiality of the individual's test results and status.
6. The impact of the problem on job performance, including interpersonal relationships affecting the workplace, is documented.
7. Refusal to be Tested: If faculty, house staff, or staff member refuses to be escorted or tested, the supervisor acts on the actions and evidence available (based on behavior and/or performance and all available information), and the individual is placed on administrative leave or summary suspension, as appropriate. After consultation with the appropriate department, the supervisor initiates the appropriate step(s) of disciplinary action, including termination, if warranted.
8. The supervisor arranges safe transportation from the University/ Medical Center for the faculty, house staff, or staff member.

D. Post-Test:
1. Pending the test results, the faculty, house staff, or staff member is placed on administrative leave/summary suspension by their supervisor.
2. OHC reports final test results to the HR business partner for staff members, or to the appropriate supervisor of faculty or house staff.
    a. Staff: The HR business partner notifies the supervisor of the test results. The HR business partner meets with the staff member and supervisor to discuss test results and disciplinary action, including termination, to be taken, if any, and/or expected performance changes.
    b. Faculty/House Staff: If faculty or house staff are involved, the appropriate Clinical Service Chief, Program Director, or designee discusses the test results with the OHC and others, as indicated. Upon receiving this information, the Chair, Program Director, or designee determines what action should be taken (e.g., initiation of disciplinary action, up to and including termination and/or referral to FPWP for evaluation and treatment recommendations).

E. Bills for drug and alcohol test collection are sent to Vanderbilt OHC for verification and payment. Laboratory fees are billed directly to OHC as directed on the Custody and Control Form. Any other charges for medical evaluations are billed to the employee's home department.

F. Peer Assistance Programs/EAP/Counseling:
1. VUMC faculty, staff, and house staff also comply with any peer assistance program, licensing board, program, or agency that requires disclosure. Requests for information from licensing boards, peer assistance groups, or other referral sources are referred to EAP/FPWP/NWP.
    a. VUMC faculty, house staff, or staff members may be referred or seek assistance for substance abuse counseling through the EAP/FPWP/NWP. It is the supervisor's responsibility to refer a faculty, house staff, or staff member to EAP/FPWP/NWP for follows-up when:
        1. Supervisor has knowledge of any faculty, house staff, or staff member who has or has had an alcohol or drug problem; or

2. Faculty, house staff, or staff member has been through alcohol/drug treatment, but is not currently being followed by EAP.
    a. In addition, if a supervisor learns that a staff member has had an alcohol or drug problem or has completed a treatment program, the supervisor consults with the HR business partner to determine what actions, if any, are taken.

b. VUMC faculty, house staff, or staff members who enroll in and successfully complete a treatment program approved by EAP/FPWP/NWP and who agree to a written set of standards developed by EAP/FPWP/NWP, may be eligible for continued employment or re-employment. Those who are required to enroll, but fail to enroll in such a program, or who fail to follow the treatment prescribed, or who fail to successfully complete the program, or who do not maintain the agreement standards developed by EAP/FPWP/NWP, may be terminated.

2. Credentialed and/or privileged members of the Medical Staff, Professional Staff with Privileges and Allied Health Practitioners, house staff, or staff member convicted of any crime involving drugs or alcohol are required to notify their supervisor in writing within 5 calendar days of conviction. The supervisor, in turn, notifies the Clinical Service Chief, Program Director, or Employee Relations representative. Any individual so convicted or who fails to report the conviction may be subject to disciplinary action, up to and including termination.

Vanderbilt University Medical Center
Policy: Possession of Firearms/Weapons

Purpose: To reduce the likelihood of injury to faculty/staff, patients, and visitors from firearms and other weapons inside the Medical Center.

Policy: Firearms and other weapons are prohibited at Vanderbilt University Medical Center (VUMC), except by commissioned law enforcement, or corrections officers in performance of their duties. Primary exterior entry doors have signage posted with the school property weapons law.

Prohibited Weapons per State Law:
Per the Tennessee Code Annotated 39-17-1309, it is an offense for any person to possess or carry, whether openly or concealed, with the intent to go armed, any firearm, explosive, explosive weapon, bowie knife, hawk bill knife, ice pick, dagger, slingshot, leaded cane, switchblade knife, blackjack, knuckles or any other weapon of like kind, not used solely for instructional or school-sanctioned ceremonial purposes, in any public or private school building or bus, on any public or private school campus, grounds, recreation area, athletic field or any other property owned, used, or operated by any board of education, school, college or university board of trustees, regents or directors for the administration of any public or private educational institution.

"Weapons of like kind" also includes razors and razor blades, except those used solely for personal shaving, and any sharp pointed or edged instrument, except unaltered nail files and clips and tools used solely for preparation of food, instruction, and maintenance.

Specific Information:

A. Adult and Pediatric Emergency Departments - In accordance with Emergency Department procedures, ambulatory patients and visitors are required to pass through a metal detector or other metal scanning process prior to entrance into the Emergency Department. Persons entering the Emergency Department from entrances that are not monitored by metal detectors are directed by staff to reenter the area through a metal detector unless clinically contraindicated.
B. VUMC Inpatient Areas - If faculty/staff receive information that a firearm or other dangerous weapon may be present in VUMC inpatient areas, the following steps are taken:
    1. Faculty/staff role
        a. Contact Vanderbilt University Police Department (VUPD) at 2-2745 or 911 from a house phone or 421-1911 from a cell phone (for emergencies), and arrange to meet with an officer away from the person suspected of having a weapon.
        b. Provide the responding officer with the following information:
            1. Circumstances that led to the belief that a firearm or other weapon may be present;
            2. Description of person involved; and
            3. Description and location of possible weapon.
    2. VUPD's role
        a. Investigate and respond appropriately based upon the circumstances of each incident.
        b. Document appropriately, coordinate efforts, and communicate actions and outcomes with affected managers and administrators.
C. Vanderbilt Medical Group (VMG) Clinics

1. If faculty/staff receive information that a firearm or other dangerous weapon may be present in the VMG clinics within the VUMC campus or One Hundred Oaks (OHO), the following steps are taken:
    a. Contact VUPD at 2-2745 or 911 from a house phone, or 421-1911 from a cell phone (for emergencies), and arrange to meet with an officer away from the person suspected of having a weapon.
    b. Provide the responding officer with the following information:
        1. Circumstances that led to the belief that a firearm or other weapon may be present;
        2. Description of person involved; and
        3. Description and location of possible weapon.
2. VUPD's role
    a. Investigate and respond appropriately based upon the circumstances of each incident.
    b. Document appropriately and coordinate and communicate actions and outcomes with affected managers and administrators.
    c. Offsite VMG Outpatient Practice Areas If faculty/staff receive information that a firearm or other dangerous weapon may be present at a VUMC outpatient practice area/physician office outside of the confines of the Vanderbilt Campus or One Hundred Oaks, contact the local police department and provide information to the responding officer as described below:
        1. Circumstances that led to the belief that a firearm or other weapon may be present;
        2. Description of person involved; and
        3. Description and location of possible weapon.
        4. Following the steps above, faculty/staff complete a VERITAS report.

Locations of weapon prohibition signage at VUMC

VCH

- ED Ambulatory Entrance
- ED Ambulance Entrance
- Main Lobby Entrance
- Crosswalk Entrance from South Garage, 2nd Floor
- 2nd Floor Entrance Pierce Avenue side, both sets of double door entrances

PRB

- Revolving Doors on Pierce Avenue (or on glass near door)
- On Handicapped Entrance near revolving door, Pierce Avenue side

TVC

- Main Entrance doors on Medical Center Drive side (#184157)
- Crosswalk Entrance from TVC Garage, 2nd and 3rd levels

MCE/North/South Towers - Main Entrance, 21st Avenue side (#027-711)

VUH

- Main Lobby Entrance, Medical Center Drive Side, (#184152, #184153)

- 2nd Floor SICU Waiting Entrance from the East Garage
- Emergency Department Ambulatory Entrance (#028-421)
- Emergency Department Ambulance Entrance (#054-660)

MCN Round Wing

- Main Lobby Entrance Doors facing circle drive
- Patient Drop Off, 22nd Avenue “B Corridor” Canopy Entrance

VPH - Main entrance

One Hundred Oaks - Public entrances