



**DEPARTMENT OF
MEDICAL LABORATORY SCIENCES**

**MEDICAL DIAGNOSTICS
STUDENT HANDBOOK**

In order to facilitate the success and ensure the welfare of students in the Medical Diagnostics major and in their future careers, the policies stated herein have been adopted. Feel free to contact the Program Director if you have any questions concerning department policies.

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Please indicate your understanding of these policies by **signing** on the indicated space on **Green Page 9** and **return the ENTIRE DOCUMENT in the enclosed envelope**. The second copy of the document is to be retained for your files. Please **return** the signed copy of the document by **June 27th**.

DEPARTMENT OF MEDICAL LABORATORY SCIENCES
MISSION STATEMENT

The Department of Medical Laboratory Sciences is committed to providing skilled, critically-thinking practitioners equipped to be future leaders in health sciences. In this pursuit, the Department is committed to active engagement of undergraduate and graduate students in experiential learning, to forming collaborative partnerships with educational, clinical, industrial and research experts locally and globally, to discovering innovative breakthroughs in research that contribute to the health and basic sciences body of knowledge, and to functioning as an expert resource regarding all issues related to Medical Laboratory Science.

I. GOALS AND COMPETENCIES REQUIRED OF STUDENTS

It is the goal of the University of Delaware to encourage students to achieve their highest standard of scholarship and to help them assume responsibility for developing and achieving their own goals and objectives. In accordance with this, the primary educational goals of the Department of Medical Laboratory Sciences are to provide students with an excellent comprehensive education in medical diagnostics leading to a baccalaureate degree, to prepare students to function in professional positions as practitioners for the healthcare environment of the 21st century, and to prepare students to be life-long learners so as to remain current with advances in medical science.

The design of the curriculum assures student-oriented instruction in the theory of diagnostic laboratory procedures. The capstone course, MEDT 462 Experiential Learning, is a continuum of this specialized, medical education and is designed to broaden the student's education and experience. This approach to medical education enables students to graduate from the University prepared to enter professional and graduate schools.

The Medical Diagnostics major's educational objectives are listed below and encompass each area of laboratory services including clinical chemistry, hematology, hemostasis, immunohematology, immunology, microbiology, molecular diagnostics/genetics, urinalysis, and body fluids. To accomplish the educational goals of the program and some of the general education goals of the University, the curriculum incorporates cognitive competencies. After successfully attending lectures and completing assignments, the student will be able to:

- Utilize scientific principles (e.g., physiology, immunology, biochemistry, genetics, microbiology, etc.), laboratory principles, and methodologies for the clinical setting.
- Interpret clinical significance, clinical procedures, and laboratory test data accurately.
- Utilize principles of quality assurance and quality improvement for all phases of laboratory services, i.e., pre-analytical, analytical, and post-analytical.
- Communicate, through oral and written skills, effectively and professionally to enable consultative and educational interactions with health care personnel, the public, and patients in order to function successfully as a member of the healthcare team.
- Demonstrate ethical behavior and professionalism, maintain confidentiality of patient information, and participate in continuing education for one's own professional career development.
- Evaluate published scientific studies utilizing knowledge of research design.
- Apply principles and concepts of laboratory operations to critical pathways and clinical decision making, performance improvement, dynamics of healthcare delivery systems in relationship to laboratory services

General Education Goals of the University

After successfully attending lectures and completing assignments in the liberal arts courses, the student will be able to:

- Demonstrate an understanding of human creativity and of various types of aesthetic and intellectual expression through study of the liberal arts.
- Demonstrate an understanding of the significance of cultural diversity as exhibited within the United States through study of the liberal arts including completion of a multicultural course.
- Demonstrate an understanding of the impact of globalization through study of the liberal arts.

II. ESSENTIAL FUNCTIONS REQUIRED OF STUDENTS

As a Medical Diagnostics major, you have chosen to pursue a health care profession, where honesty and integrity are critical personal characteristics required both in your academic studies and in the practice of the medical profession. Successful students are self-sufficient, problem-solvers who like the challenge and responsibility that careers in health care provide. The principles that embody the Essential Functions are applicable to the many career opportunities that exist in health care. Physicians, physician assistants, dentists, optometrists, etc. need to possess the same qualities that are detailed in the Essential Functions including but not limited to manual dexterity, good eye-hand coordination, safe utilization of equipment, accuracy, maintaining composure in stressful situations, utilizing independent judgment, exercising good communication skills, demonstrating ability to comprehend scientific and medical information, and maintaining patient confidentiality. The Essential Functions are comprised of physical, emotional, and professional/intellectual demands and are the expectations for a student who plans to pursue graduate or professional school upon graduation.

The *physical demands* required of students include the ability to:

1. Perform manual manipulations safely and with dexterity.
2. Operate state-of-the-art equipment as required.
3. Utilize electronic records and hospital information systems, including proper use of computers and keyboards.
4. Read and employ information displayed on a computer monitor or in print, e.g., text, numbers, graphs, etc.
5. Perform delicate manipulations which require good eye-hand coordination.

6. Participate in safe practices through one's ability to move effectively in the work place, to access work areas, and to reach hospitalized patients and out-patients for the purpose of examination.

The *emotional demands* required of students include the ability to:

1. Maintain composure and provide appropriate services under stressful situations, such as time constraints, emergencies, rudeness, etc.
2. Utilize independent judgment and act logically in the performance of one's duties.
3. Organize and accept responsibility for one's work, including acknowledgement of errors or uncertainty and acceptance of constructive criticism.
4. Employ sufficient psychological stability to consistently and dependably utilize critical thinking in order to formulate and implement safe and ethical healthcare decisions in a variety of healthcare settings.

The *professional/intellectual demands* required of students include the ability to:

1. Communicate in a professional, positive, tactful manner with patients, physicians, nurses, other health care and non-health care employees.
2. Communicate, comprehend, and follow directions understandably in English as evidenced by verbal, written, and reading skills.
3. Communicate, through the use of assistive devices (e.g., hearing aids, phone receivers, etc.) if needed, so as to converse understandably in English.
4. Maintain patient confidentiality and exercise ethical judgment, integrity, honesty, dependability, and accountability in the performance of one's responsibilities.
5. Demonstrate the intellectual skills required to comprehend scientific and medical information, to perform mathematical calculations, to analyze information, to evaluate information, and to use critical thinking skills to solve problems.
6. Maintain a well-groomed, neat, professional appearance.

III. HEALTH AND SAFETY REQUIREMENTS

Many graduate educational programs that lead to health care careers, including those for physicians, physician assistants, dentists, optometrists, podiatrists, etc., require undergraduate students to experience the particular career by performing volunteer services. The number of volunteer service hours performed and the type of facility in which the service is performed vary among the career options. Students should inquire about the volunteer experience early in the junior year to be sure that they meet the volunteer requirements of their chosen graduate education. The best way to obtain actual patient contact is by the student volunteering in a health-related environment such as a hospital, an emergency room, an ambulance corps, a neighborhood clinic, a doctor's office, a nursing home, etc.

- **Health Requirements**

To safeguard the health and safety of staff and patients when performing educational activities in the clinical setting, students may be required to have a routine physical examination before the start of volunteer activities. The physical examination provides verification that the student appears to be free from disease or any impediment which would interfere with normal activity, study, or physical effort.

- **Immunizations**

- **Hepatitis Vaccine**

Health-care personnel are among those at increased risk for contraction of hepatitis B virus infections due to their frequent contact with human serum and other body fluids. Immunization against the hepatitis B virus is the principal means of preventing infection. **For the student's protection, it is strongly recommended (but not mandatory) that all students be immunized with the recombinant hepatitis B virus vaccine.**

A student who wishes to be immunized may receive the injections from his or her family physician. **Such immunizations should begin at least six months prior to volunteer activities.** Alternatively, the Student Health Services is making the vaccine available. The vaccine is administered as a series of three injections given at appropriate intervals over a six-month period. If administered by the Student Health Services, the cost to the student will be approximately \$115.

- **Other Immunizations**

Before starting volunteer activities, students may be required to have specific testing and/or immunization (or documentation thereof) for tetanus, measles (rubeola), mumps, and rubella (MMR), varicella (chicken pox), influenza (seasonal flu and H1N1) and tuberculosis (PPD/Tuberculin Skin Test). Students are required to submit documentation of immunity as evidenced by positive immune titers for several of these diseases. For the safety of patients, healthcare institutions have the right to refuse student participation, if the student is unwilling to comply with immunization requirements.

- **Drug Screening, Criminal Background Check, and Other Requirements**

Before starting volunteer activities, a student may be required to complete a urine drug screening and a criminal background check. There are some requirements that may be specific to certain healthcare institutions, including but not limited to: child abuse registry investigation and adult abuse registry investigation. For the safety of patients, healthcare institutions reserve the right to request a urine drug screening and such criminal/abusive background checks at the commencement of volunteer activities.

- **Important Note**

Students should be aware that results from the criminal background check, urine drug screening, child abuse registry investigation and adult abuse registry investigation could negatively

impact the student's ability to participate in volunteer activities at healthcare institutions. In addition, candidates applying for employment in healthcare are typically required to undergo a criminal background check and urine drug screening. Each student should use sound judgment and avoid situations which could result in poor decisions. Failure to do so could jeopardize the student's ability to complete graduate medical education, thus impacting on future career goals in healthcare.

IV. ACADEMIC REQUIREMENTS

- **Grading**

The student must obtain a grade of C- or higher in each of the Medical Laboratory Science (MEDT) professional courses to progress in the Medical Diagnostics major. A grade of C- requires attainment of a minimal grade of 70. To avoid problems that may impede progression in the major, a student who finds himself/herself in academic difficulty is encouraged to seek assistance from the Office of Academic Enrichment and the Center for Counseling and Student Development. **NOTE:** In accordance with University policy, courses taken at another institution must be graded C or better to transfer (a grade of C- is not acceptable for transfer).

See <http://www.udel.edu/registrar/transfer/transins.html>.

- **Lecture Attendance**

Attendance at all Medical Laboratory Science lecture sessions is highly recommended. The student must abide by the regulations set forth in each Medical Laboratory Science course, so the student should consult the policy contained in each course manual. In general, absence from class due to illness, death of a family member, a personal emergency, or observance of a religious holiday will constitute cause for an excused absence. Examples of unexcused absences include but are not limited to: scheduling routine medical and dental appointments, expanding spring break beyond its allotted time, or scheduling other travels for personal reasons.

- **Student Grievances and Disciplinary Action**

Honesty and reliability are essential in the medical profession, and these qualities are emphasized in all of the undergraduate professional courses. Any incidence of personal misconduct, suspected cheating on an examination, plagiarism, or any other form of academic dishonesty by a student will be communicated to the Office of Student Conduct. If warranted, the incidence may be adjudicated by the Undergraduate Student Conduct System. Determination of misconduct may result in an F in the course and automatic dismissal from the Medical Diagnostics major.

Student grievances are handled according to the policies of the Department of Medical Laboratory Sciences, the College of Health Sciences, and the University at large. Students should refer to the *University of Delaware Student Guide to University Policies* for detailed information on academic and non-academic grievance procedures (available on the World Wide Web <http://www.udel.edu/stuguide/current>).

V. PROFESSIONAL SCHOOL REQUIREMENTS

- **Health Science Advisement and Evaluation Committee (HSAEC)**

A student whose educational goal is to attend a professional school, including medical, dental, optometry, or podiatry, should become familiar with the Health Science Advisement and Evaluation Committee (HSAEC) no later than the junior year. HSAEC is a University committee composed of University faculty and local physicians, who evaluate the credentials of perspective candidates for professional school admission. A junior student must complete their HSAEC pre-med file, be interviewed by two HSAEC committee members in preparation for the University's evaluation of the student's record, and take the appropriate standardized admission exam, e.g., MCAT, DAT, GRE. A student may open a HSAEC file as early as the freshman year, most often during the sophomore year and no later than the junior year.

For additional information about HSAEC and professional school requirements, students are referred to <http://www.bio.udel.edu/medical-and-dental-careers>.

- **Center for Premedical and Health Profession Studies**

The Center for Premedical and Health Profession Studies focuses on assisting students who are interested in careers in the health professions. The center helps to assist students who want to pursue careers in medicine, dentistry, optometry, podiatry, physician assistant, advanced practice registered nurse, pharmacy, physical/occupational therapy and other health profession programs.

For additional information about the Center for Premedical and Health Profession Studies, students are referred to <http://www.udel.edu/premed/>.

STUDENT SIGNATURE

It is the student's responsibility to read and understand the policies in this document.

MY SIGNATURE ATTESTS THAT I HAVE READ AND UNDERSTAND ALL OF THE POLICIES AND INFORMATION RELATED IN THIS DOCUMENT FOR PROGRESSION IN AND COMPLETION OF THE MEDICAL DIAGNOSTICS MAJOR.

WITNESS to Student's Signature Date
(Parent or guardian can be a witness.)

Student's Signature Date
MEDICAL DIAGNOSTICS STUDENT

Print Student's Name