Medical Technology Program

Student Handbook

2015-2016
Code of Ethics

Being fully cognizant of my responsibilities in the practice of Medical Technology, I affirm my willingness to discharge duties with accuracy, thoughtfulness, and care. Realizing that the knowledge obtained concerning patients in the course of my work must be treated as confidential, I hold inviolate the confidence placed in me by patient and physicians. Recognizing that my integrity and that of my profession must be pledged to the absolute reliability of my work, I will conduct myself at all times in a manner appropriate to the dignity of my profession.

American Society for Clinical Laboratory Science
MORGAN STATE UNIVERSITY
MEDICAL TECHNOLOGY PROGRAM

ALL POLICIES AND GUIDELINES ARE IN AGREEMENT WITH THE UNIVERSITY’S POLICIES

STUDENTS MUST AGREE TO UNDERSTAND AND TO COMPLY WITH ALL OF THE POLICIES IN THIS MANUAL

THE MANUAL CONTAINS AN ADMISSION COMPONENT SECTION AND A GENERAL POLICY SECTION
MORGAN STATE UNIVERSITY
MEDICAL TECHNOLOGY PROGRAM

Table of Contents:

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Overview</td>
<td>4</td>
</tr>
<tr>
<td>Admission Criteria</td>
<td>5</td>
</tr>
<tr>
<td>Mission/Goals of the Program</td>
<td>6</td>
</tr>
<tr>
<td>Essential Functions/Non-Academic Standards</td>
<td>7</td>
</tr>
<tr>
<td>Laboratory and Personal Safety</td>
<td>10</td>
</tr>
<tr>
<td>Course Descriptions</td>
<td>12</td>
</tr>
<tr>
<td>Academic Requirements</td>
<td>17</td>
</tr>
<tr>
<td>Comprehensive Examinations</td>
<td>18</td>
</tr>
<tr>
<td>Grievance Procedure</td>
<td>19</td>
</tr>
<tr>
<td>Attendance</td>
<td>20</td>
</tr>
<tr>
<td>Clinical Experience</td>
<td>21</td>
</tr>
<tr>
<td>National Certification Exam</td>
<td>22</td>
</tr>
<tr>
<td>Program Costs</td>
<td>22</td>
</tr>
<tr>
<td>Financial Aid</td>
<td>22</td>
</tr>
<tr>
<td>Clinical Practicums Checklist Form</td>
<td>24</td>
</tr>
<tr>
<td>Program Director, Faculty, Advisory Committee</td>
<td>25</td>
</tr>
</tbody>
</table>
MEDICAL TECHNOLOGY at Morgan State University

♦ Medical Technology students at Morgan State University earn a Bachelor of Science degree in Medical Technology

♦ Each student learns four major disciplines: chemistry, microbiology, blood banking (transfusion medicine) and hematology

♦ Each student learns five ancillary disciplines: management and education, urinalysis/body fluids, parasitology, mycology and molecular diagnostics

♦ Senior students rotate through hospital clinical laboratories and reference laboratories for four (4) rotations, each lasting eighteen-twenty days (18-20)

♦ Bachelor of Science in Medical Technology is dependent upon successful completion of MT curriculum NOT the passing of external certification or licensure examination

♦ Employment opportunities are 80%-90% for the graduating seniors in various clinical laboratory settings

OUR CLINICAL AFFILIATES

♦ Good Samaritan MedStar Hospital
♦ Greater Baltimore Medical Center
♦ Johns Hopkins Hospital
♦ Johns Hopkins-Bayview
♦ Mercy Medical Center
♦ University of Maryland Medical Systems
♦ Veterans Affairs Maryland Health System-Baltimore
This admission packet contains general clinical laboratory sciences information and forms to be completed. Please indicate with your signature that you have read, understand and will comply with the policies. All forms must be signed and returned to the program office.

Admission Criteria

1. Minimum Overall GPA – 3.0
2. Minimum Science GPA – 3.0
3. Ability to meet published nonacademic (essentials) with or without reasonable accommodation
4. Completion of 62/69 credit hours including prerequisite courses *

*Catalog dependent
I. MISSION, GOALS AND COMPETENCIES OF THE PROGRAM

Program’s Mission: The Medical Technology Program aspires to promote the clinical laboratory sciences profession through teaching, research and service to a culturally diverse and multi-racial population.

Program’s Vision: To prepare the students academically, technically and professionally using the medical laboratory science (MLS) curriculum to meet the MLS entry-level competencies as directed by the profession.

The ultimate goal of Morgan State University Medical Technology/Clinical Laboratory Sciences Program is to prepare students for career entry positions as clinical laboratory scientists. Therefore, specific professional competencies are the goal of graduates. The program strives, through its educational methods to incorporate all facets of quality laboratory practices into the professional development of students. The curriculum is designed to prepare graduates in various testing and analytical skills.

- Collect and safely handle biological specimens for analysis
- Perform accurate laboratory testing
- Evaluate and interpret laboratory data
- Identify problems and take corrective actions
- Use quality assurance to monitor procedures, equipment and technical competency
- Operate equipment properly and perform preventative and corrective maintenance
- Comply with established laboratory safety regulations
- Use computers and laboratory equipment effectively
- Evaluate the efficacy of new procedures and instrumentation for a given setting
- Demonstrate ethical behavior and maintain confidentiality in terms of patient results
- Interact professionally with patients and other health care personnel
- Apply principles of educational methodology
- Apply principles of management
II. ESSENTIAL FUNCTIONS OR NON-ACADEMIC STANDARDS

The field of Clinical Laboratory Sciences/Medical Technology is continually evolving. Since the field is highly technical, student must be able to satisfy the technical standards as well as the academic requirements. Essential functions are non-academic requirements which a student must possess or develop in order to participate successfully in the program.

Observation

- Identify various microscopic structures and cells using brightfield and phase microscopy
- Observe patient conditions during phlebotomy procedures
- Read text, numbers and graphics in print and on monitor screen of various instrumentations
- Determine the color and clarity of biological specimens and reagents

Movement/Manual Dexterity

- Move freely and safely in various clinical laboratory areas
- Obtain and manipulate laboratory equipment
- Perform various laboratory tasks requiring taxing, continuous, physical and mental work during the specified work period

Communication

- Demonstrate written and oral proficiency in the English language including the ability to read, write and speak English fluently
- Communicate sensitively and confidentially with individuals requiring laboratory tests
- Exercise self-evaluation to recognize and correct performance deviation
- Use the following intellectual skills: comprehension, calculation, analysis, integration, reasoning, application and self-expression
Behavior

- Display honest, ethical, compassionate and responsible behavior
- Exercise intellect and judgment during stress-related experiences
- Adapt to various professional and technical changes
Please sign this form that you have **read, understand and are able to perform** the listed essential functions. If you are unable to fulfill any of the essential functions, please consult the Program Director to discuss your individual situation and/or to request a specific accommodation.

_________________________________________  __________________________
Applicant Signature                          Date

_________________________________________
Printed Name

_________________________________________
Witness Printed Name
III. LABORATORY AND PERSONAL SAFETY

- **Dress Code**

In order to maintain a safety clinical working environment, the following laboratory items are recommended:

1. Shirts, blouses, sweaters or tops (no written message present) should cover all of the upper body areas. Scrubs are recommended for the laboratory setting.

2. Full length laboratory coat which meets OSHA standards will be worn at all times in the laboratory settings.

3. Mini skirts, shorts, canvas and open toe shoes (sandals, flip flops) are not permitted in the laboratory.

4. Hats, decorative head scarves, dangling bracelets, necklaces, or earrings longer than 1 inch below the earlobe cannot be worn. Males are not allowed to wear earrings in the laboratory settings-didactic or clinical rotation. Religious garb will be honored.

5. Students will provide the following personal protective equipment (PPE): laboratory coat, gloves.

6. Tattoos and other body markings will be covered.

- **Hazardous Substances**

Some of the laboratory exercises will require that students handle potentially hazardous reagents and specimens. Standard precautions will be used and explained to the students to ensure proper handling of the potentially hazardous materials. Pathogenic microorganisms, human blood, urine, feces and other body fluids are the potentially hazardous materials which will be used in the clinical laboratory setting.

- **Immunizations**

Students are required to have specific testing and/or immunization (or documentation thereof) for recent influenza, tetanus, measles, mumps, rubella (MMR) and tuberculosis (PPD)-see page 24.
Immunizations for the students may be received from family physicians, employment physicians or through the health center. The injections should begin at the beginning of the students’ professional year to ensure completion before students begin the clinical rotations. A copy of the immunization record will be submitted to the Clinical Coordinators and Program Office.

- **Health Insurance**
  All students are required to have health insurance during their clinical rotations. Documentation of such must be presented prior to the beginning of the clinical rotations.
IV. COURSE DESCRIPTIONS

MEDICAL TECHNOLOGY COURSE OFFERINGS
(Open only to Medical Technology majors and to be taken in the sequence indicated)

MDTC 100 MEDICAL LABORATORY SCIENCE - 1 credit. This is an introductory course to the clinical laboratory profession. Topics include clinical laboratory organization, personnel and regulatory agencies and issues. Professional interactions with practicing Medical Laboratory Professionals are required. Basic clinical laboratory procedures will be performed. (SPRING)

MDTC 300 PRINCIPLES OF MEDICAL TECHNOLOGY - 3 credits. This is an integrated lecture and laboratory course to introduce concepts and techniques in the clinical laboratories. Topics include laboratory safety and mathematics, glassware, pipets, principles of instrumentation and quality assurance. Students will develop basic laboratory techniques such as pipetting and skills in the laboratory sessions. Prerequisites: CHEM 201, 202 And prior prerequisite (FALL)

MDTC 305 CLINICAL CHEMISTRY I - 3 credits. This is an introductory lecture/laboratory course to introduce the basic principles of clinical chemistry. Topics include carbohydrates, proteins and lipid metabolism, pathophysiology and testing of body fluids to evaluate the metabolic processes. Manual and automated methods of measurement of the clinically significant analytes will be performed in the laboratory sessions. Prerequisite: MDTC 300 And prior prerequisites (SPRING)

MDTC 335 PATHOGENIC BACTERIOLOGY - 4 credits. This course is Part I of Clinical Microbiology. The purpose of this course is to introduce the fundamental principles of Microbiology. The lecture emphasis is on the understanding of the pathogenic bacteria and its role in the pathogenesis of human disease. The focus of the laboratory course will primarily be on the sample handling, culturing and identifying some of the clinically relevant pathogenic bacteria. Information on the types of diseases, epidemiology and transmissions, and the prophylactic and therapeutic methods of dealing with these organisms will be presented.
Prerequisite: BIOL 405 (SPRING)

MDTC 410 CLINICAL CHEMISTRY II - 4 credits. This course is a continuation of Clinical Chemistry I. The following topics are included: Electrolytes, Enzymes, Endocrinology, Non Protein Nitrogenous Substances, Acid/Base Balance, Therapeutic drugs and Drug of abuse tests. Operational and methodology principles, maintenance and trouble shooting of the instrumentation used in the measurement of clinically significant analytes will be performed in the laboratory sessions. Prerequisites: MDTC 300 and MDTC 305 (SUMMER)
MDTC 411 CLINICAL PRACTICE: CHEMISTRY - 3 credits. This course consists of applied experience in the clinical chemistry section of the hospital or clinical laboratory. Students will perform all routine procedures under the direction of qualified laboratory medical technologist/clinical laboratory scientist. Correlation of laboratory results with clinical disorders will be done by the students. Prerequisites: MDTC 300, MDTC 305 and MDTC 410 (SPRING)

MDTC 419 CLINICAL HEMATOLOGY I - 3 credits. This course introduces the student to the basic principles of hematology and the study of anemias. Topics include hematopoiesis, erythropoiesis, anemias, and hemoglobinopathies. The student will learn to evaluate normal and abnormal cellular morphology through a systematic evaluation of the peripheral smear and all of its components. Additionally, students will learn to integrate these findings into the clinical picture. Normal values, the laboratory evaluation of hematological diseases and treatment plans will be presented in detail. Manual and automated procedures components of the blood will be performed in the laboratory session. Laboratory exercises, case studies, and integrated discussions will complement the course. (SPRING)

MDTC 420 CLINICAL HEMATOLOGY II - 3 credits. This course introduces the student to advanced concepts of hematology and hemostasis (coagulation). Normal values and basic hematologic testing will be stressed and principles of myeloproliferative disorders, the leukemias and the lymphoproliferative disorders will be explained. Students will be introduced to the principle of electronic counting and will learn to interpret scatterplots or other graphical material. The concepts of hemostasis basics and advanced will be developed through laboratory exercises, case studies and classroom discussions. (FALL)

MDTC 421 CLINICAL MICROSCOPY - 2 credits. This course introduces the student to the concepts and principles in the analysis of urine and other body fluids. Routine biochemical and microscopic examination of body fluids will be done in the lab. (FALL)

MDTC 422 CLINICAL PRACTICE: HEMATOLOGY/MICROSCOPY - 3 credits. This course consists of applied experience in the hematology section of the hospital laboratory or clinical laboratory. Students will perform all routine procedures under the direction of a qualified laboratory technologist. This instruction will enable the students to develop confidence and proficiency in the performance of laboratory tests. (SPRING)

MDTC 429 IMMUNOHEMATOLOGY I - 3 credits. This course is designed to introduce the student to basic concepts in transfusion medicine. Basic blood group serology will be stressed as well as immunologic techniques which apply to blood banking will be employed. Additionally, donor screening and component preparation and handling will be stressed. (SPRING)

MDTC 430 CLINICAL IMMUNOLOGY/SEROLOGY - 2 credits. This course will briefly review the principles of immunology and also introduce concepts that are employed in the clinical diagnostic applications. The main focus of the course is the application of serological and immunological fundamentals in diagnosing the diseases involved in the human immune system. Prerequisite: BIOL 406 (FALL)
MDTC 431 IMMUNOHEMATOLOGY II - 2 credits. This course is designed to introduce and build upon practical and theoretical concepts presented in Immunohematology I. Additional topics to be covered include investigations and management of hemolytic disease of the fetus and newborn (HDFN), transfusion reactions and autoimmune hemolytic anemias. (FALL)

MDTC 432 CLINICAL PRACTICE: TRANSFUSION MEDICINE/BLOOD BANK - 3 credits. This course consists of applied experience in the blood bank/transfusion medicine section of the hospital laboratory or clinical laboratory. Students will perform all routine procedures under the direction of a qualified medical technologist/clinical laboratory scientist. (SPRING)

MDTC 440 CLINICAL MICROBIOLOGY - 5 credits. This course is Part II of Clinical Microbiology. This course will introduce the student to diagnostic methods of Bacteriology, Mycology, Virology and Parasitology. Clinical specimens will be cultured for the identification of normal flora and pathogenic organisms. A discussion of antimicrobial testing and therapy will be included. Pathogenic fungi, yeasts, and parasites will be incorporated. (FALL)

MDTC 441 CLINICAL PRACTICE: MICROBIOLOGY - 3 credits. This course consists of applied experience in the microbiology section of the hospital laboratory. Students will perform all routine procedures under the direction of a qualified Medical Technologist/Clinical Laboratory Scientist. (SPRING)

MDTC 450 MEDICAL TECHNOLOGY SEMINAR - 1 credit. This course consists of a laboratory management, education, research design and phlebotomy component. Basic principles and concepts for each of the components will be presented. The students will make several presentations from selected topics on the components. (FALL)

MDTC 470 INTRODUCTION TO MOLECULAR DIAGNOSTICS - 2 credits. Introduction to Molecular Diagnostics is a three weeks integrated lecture and laboratory course. The emphasis is on the understanding of the molecular methodologies that are employed in clinical applications which includes diagnosis of infectious diseases, inherited disorders, prenatal, cancer, paternity and forensics. Prerequisites: MDTC 300, BIOL 405, BIOL 406, MDTC 430, MDTC 440 And prior prerequisites. (FALL)

MDTC 480 CLINICAL LABORATORY SCIENCE REVIEW - 1 credit. Clinical Laboratory Science Review will provide an in-depth review of subject areas in Clinical Chemistry, Hematology, Immunohematology, Immunology, Urinalysis/Body Fluids and Microbiology. Assessment will be done for each of the six afore-mentioned disciplines after completion of the related clinical rotation practicums. The ultimate goal of this course is preparation for the senior comprehensive examination, which will be given near the end of the spring semester, and the certification examinations. Prerequisites: MDTC 300, 305, 335, 410, 419, 420, 429, 430, 431 and 440 (SPRING)
## Pre-Professional Phase

### Freshman Year (First Semester)
- **ENGL 101** English 3
- **HIST 101** World History or U.S. History 3
- **CHEM 105** General Chemistry 4
- **MATH 113** Math. Analysis I 4
- **ORIE 106** Freshman Orientation 1
- **HEED 100** Health Education 2

**TOTAL CREDIT HOURS: 17**

### Freshman Year (Second Semester)
- **ENGL 102** English 3
- **HIST 102** World History or U.S. History 3
- **CHEM 106** General Chemistry 4
- **MATH 114** Math. Analysis II 4
- **MDTC 100** Intro to Allied Health 1
- **XXX** Physical Education 1

**TOTAL CREDIT HOURS: 16**

## Sophomore Year (First Semester)
- **HUMA 201** Humanities I 3
- **Biol 105** Intro. to Biology 4
- **CHEM 201** Organic Chemistry I 4
- **PHIL 109** Introduction to Logic 3
- **Biol 200** Medical Terminology 2
- **GENL 201** Computer Literacy 2

**TOTAL CREDIT HOURS: 18**

### Sophomore Year (Second Semester)
- **MDTC 280** Human Physiology 4
- **HUMA 202** Humanities II 3
- **Biol 106** Intro. to Biology 4
- **CHEM 202** Biochem 4
- **XXX** Soc. Science Elective 3

**TOTAL CREDIT HOURS: 18**

## Professional Phase

### Junior Year (First Semester)
- **Biol 405** Microbiology 4
- **HIST 350** Afric. Amer. Studies 3
- **MDTC 421** Clinical Microscopy 2
- **MDTC 300** Prin. Med. Technology 3
- **XXX** Humanities Elective 3
- **XXX** Comp. Stud. 3

**TOTAL CREDIT HOURS: 18**

### Junior Year (Second Semester)
- **XXX** Comp. Stud. 3
- **Biol 406** Immunology 4
- **MDTC 305** Intro. Clin. Chemistry 3
- **MDTC 335** Path Microbiology 4
- **MDTC 419** Clinical Hematology I 3
- **MDTC 429** Immunohematology I 3

**TOTAL CREDIT HOURS: 20**

### Senior Year (Summer Session)
- **MDTC 410** Clinical Chemistry 4

**TOTAL CREDIT HOURS: 4**

## Senior Year (First Semester)
- **MDTC 420** Clinical Hematology II 3
- **MDTC 430** Clin. Immuno/Serology 2
- **MDTC 431** Immunohematology II 2
- **MDTC 440** Clinical Microbiology 3
- **MDTC 450** Med. Tech. Seminar 1
- **MDTC 470** Intro. Molecular Diag. 2

**TOTAL CREDIT HOURS: 15**

### Clinical Rotations

#### Senior Year (Second Semester)
- **MDTC 411** Clin. Pract-Chemistry 3
- **MDTC 422** Clin. Pract-Hema/Micro 3
- **MDTC 432** Clin. Pract-Immunohem 3
- **MDTC 441** Clin. Pract-Microbiol. 3
- **MDTC 480** Clin. Lab. Sci. Review 1

**TOTAL CREDIT HOURS: 13**

**TOTAL CREDIT HOURS: 139**

*Courses do not run concurrently; MDTC courses taught only during the semester as listed on the curriculum sequence.*

**Up to Pre-Fall 2014**
# Suggested Curriculum Sequence

## Pre-Professional Phase
### Freshman Year (First Semester)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101-EC</td>
<td>English</td>
<td>3</td>
</tr>
<tr>
<td>XXXX-SB</td>
<td>Social &amp; Behavioral Science Core</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 105-BP</td>
<td>General Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>or CHEM 111</td>
<td>(Honors)</td>
<td></td>
</tr>
<tr>
<td>MATH 113-MQ</td>
<td>Math. Analysis I</td>
<td>4</td>
</tr>
<tr>
<td>ORNS 106</td>
<td>Freshman Orientation</td>
<td>1</td>
</tr>
</tbody>
</table>

### Freshman Year (Second Semester)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 102-EC</td>
<td>English</td>
<td>3</td>
</tr>
<tr>
<td>XXXX-SB</td>
<td>Social &amp; Behavioral Science Core</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 106</td>
<td>General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>or CHEM 112</td>
<td>(Honors)</td>
<td></td>
</tr>
<tr>
<td>MATH 114-MQ</td>
<td>Math. Analysis II</td>
<td>4</td>
</tr>
<tr>
<td>MDTC 100</td>
<td>Introduction to Medical Lab Sci.</td>
<td>1</td>
</tr>
</tbody>
</table>

## Sophomore Year (First Semester)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXXX-AH</td>
<td>Arts &amp; Humanities Core</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 105-BP</td>
<td>Intro. to Biology I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 201</td>
<td>Organic Chemistry (Allied Hlth.)</td>
<td>4</td>
</tr>
<tr>
<td>PHIL 109-CT</td>
<td>Introduction to Logic</td>
<td>3</td>
</tr>
<tr>
<td>INSS 141</td>
<td>Intro. to Computer-Based Info. Sys</td>
<td>3</td>
</tr>
</tbody>
</table>

### Sophomore Year (Second Semester)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXXX-AH</td>
<td>Arts &amp; Humanities Core</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 209</td>
<td>Animal Physiology</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 202</td>
<td>Biochemistry (Allied Hlth.)</td>
<td>4</td>
</tr>
<tr>
<td>XXXX-HH</td>
<td>Health &amp; Healthful Living</td>
<td>3</td>
</tr>
<tr>
<td>PHEC XXX</td>
<td>Physical Education</td>
<td>1</td>
</tr>
</tbody>
</table>

## Junior Year (First Semester)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXXX</td>
<td>Complementary Studies</td>
<td>3</td>
</tr>
<tr>
<td>MDTC 330</td>
<td>Clinical Immunoserology</td>
<td>4</td>
</tr>
<tr>
<td>MDTC 305</td>
<td>Introduction to Clinical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>MDTC 335</td>
<td>Path. Microbiology</td>
<td>4</td>
</tr>
<tr>
<td><strong>MDTC 320</strong></td>
<td>Clinical Hematology I</td>
<td>3</td>
</tr>
<tr>
<td><strong>MDTC 331</strong></td>
<td>Immunohematology</td>
<td>3</td>
</tr>
</tbody>
</table>

## Junior Year (Second Semester)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXXX</td>
<td>Complementary Studies</td>
<td>3</td>
</tr>
<tr>
<td>MDTC 411</td>
<td>Clinical Practicum (Chemistry)</td>
<td>3</td>
</tr>
<tr>
<td>MDTC 422</td>
<td>Clinical Practicum (Hema/Micro)</td>
<td>3</td>
</tr>
<tr>
<td>MDTC 432</td>
<td>Clinical Practicum (Immunochem)</td>
<td>3</td>
</tr>
<tr>
<td>MDTC 441</td>
<td>Clinical Practicum (Microbiology)</td>
<td>3</td>
</tr>
<tr>
<td>MDTC 480</td>
<td>Clinical Lab. Science Review</td>
<td>1</td>
</tr>
</tbody>
</table>

## Senior Year (Summer Semester)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDTC 410</td>
<td>Clinical Chemistry</td>
<td>4</td>
</tr>
</tbody>
</table>

## Senior Year (First Semester)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDTC 420</td>
<td>Clinical Hematology II</td>
<td>3</td>
</tr>
<tr>
<td>MDTC 431</td>
<td>Immunohematology II</td>
<td>2</td>
</tr>
<tr>
<td>MDTC 440</td>
<td>Clinical Microbiology</td>
<td>5</td>
</tr>
<tr>
<td>MDTC 450</td>
<td>Med. Tech. Seminar</td>
<td>1</td>
</tr>
<tr>
<td>MDTC 470</td>
<td>Intro. Molecular Diag.</td>
<td>2</td>
</tr>
</tbody>
</table>

## Clinical Rotations

### Senior Year (Second Semester)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDTC 411</td>
<td>Clinical Practicum (Chemistry)</td>
<td>3</td>
</tr>
<tr>
<td>MDTC 422</td>
<td>Clinical Practicum (Hema/Micro)</td>
<td>3</td>
</tr>
<tr>
<td>MDTC 432</td>
<td>Clinical Practicum (Immunochem)</td>
<td>3</td>
</tr>
<tr>
<td>MDTC 441</td>
<td>Clinical Practicum (Microbiology)</td>
<td>3</td>
</tr>
<tr>
<td>MDTC 480</td>
<td>Clinical Lab. Science Review</td>
<td>1</td>
</tr>
</tbody>
</table>

### Total Credit Hours

127

---

* Admission to program is required to take Professional Phase MT courses

** Courses do not run concurrently

***Fall 2014 and after***
V. ACADEMIC REQUIREMENTS

GRADING POLICY

Didactic Courses:

1. **70/70 Policy Grading Policy** - All Medical Technology (MT) Professional students are required to have an average grade of 70% in both the lecture and laboratory component of the MT courses to successfully pass the courses. If unsuccessful in either component, the student will be given a course grade of a D and will be required to retake the component of the course in which the average grade was less than 70%.

2. **Course Retake** - If a student makes a grade of less than a C in one MDTC or didactic course; the student may retake the course only once and successfully complete the course.
   - Reduced Academic Load: Student may be required to take a reduced course load to maintain the Program’s academic standards as determined by the Program Director.

3. **Program Dismissal**: The following situations will result in Program Dismissal.
   - A grade of less than a C in two or more Medical Technology courses
   - A grade of less than a C in two or more didactic courses; i.e., BIOL 105, CHEM 105, CHEM 106, CHEM 201, CHEM 202, BIOL 201 AND BIOL 209
   - A grade of less than a C twice in the same MT course.
   - The following grading system is used for the didactic courses.
     - A – 90-100%
     - B – 80-89%
     - C – 70-79%
     - D – 60-69%
     - F – below 60%

Clinical Practicums:
- A grade of P (Pass) in the clinical rotations must also be obtained. In the Pass/Fail courses, a grade of P requires attainment of a minimal grade of 70%.
- Failure to complete a clinical practicum will result in the student retaking the practicum in order to meet the requirements for graduation.
Additional Senior Examination

In addition to the didactic examination, other senior examinations will consist of the following:

- Pre-Rotational Assessment
- Post-Rotational
- University-Department Comprehensive

- Pre-Rotation Assessment – The examination will be given to the student prior to the start of the clinical rotation. The examination will be comprehensive with approximately 20-25 questions in each specific discipline that includes: clinical chemistry, hematology, immunohematology, microbiology and immunology. Students are required to make a grade of 70% or higher in each discipline.

The student will be required to take the specific discipline section of the pre-rotation exam if (s)he did not take the specific discipline final during the same semester.

Failure to do so may result in a student forfeiting the clinical rotation in which (s)he has failed to make the 70% standard. This may affect the student’s graduation date.

- Post Rotation exams will be given one (1) time after the completion of all of the specific study questions and at or near the end of the clinical rotation practicum. Students are required to obtain a grade of 70% or higher on each examination.

- General comprehensive examination will be given one month prior to graduation. The student is expected to make 70% or greater for each discipline of the comprehensive exam. The student will only have one retake for the comprehensive examination. Failure to make a 70% or higher will affect the graduation.
VI. GRADE APPEAL/GRIEVANCE PROCEDURE-STUDENT COMPLAINT

Non-Academic and Academic Appeals

A. Grade Appeal

1. Discuss the appeal with the Instructor/Faculty. Provide all supporting information for the justification of the grade change. If the student is not satisfied with the decision of the Instructor/Faculty, the student should follow step 2.

2. Submit a written explanation to the Program Director and the Faculty. A meeting will be held with the student and the Program Director to discuss the concern. The Program Director will submit the decision to the student. If the student is not satisfied with the decision of the Program Director, the student should follow step 3.

3. The Program Director will submit the grievance to The Student Advisement Committee of the Medical Technology Program. The Student Advisement Committee will consist of the faculty members of the Program. The faculty member involved will have a final vote in the decision. The Committee will forward its decision to the student. If the student is dissatisfied with the Committee’s decision, the grievance may be submitted at the departmental level. See p. 44 in the Morgan State University College Catalog 2014-2015.

B. Student Complaints Resolution Procedure

1. Students will write the concern or complaint on the student appeal form.

2. The faculty and student will discuss the concern in a confidential meeting.

3. A summary of the meeting will be recorded and placed in the locked file cabinet in the Program’s Office.

4. Faculty or Program will resolve the complaint if possible.

5. Follow-up by the Faculty to the student within a month after the meeting.

C. Program Dismissal Appeal Procedure

The Appeal Petition should be submitted to the Program Director within 5 working days after the student receives the Program’s dismissal letter.
VII. ATTENDANCE

- Lecture/Laboratory

Attendance is mandatory for the lecture and laboratory sessions which require that the student is attentive and awake. Sleeping or dozing will result in the loss of the affective grade of 3 points for each session including lecture and laboratory settings. Students must communicate to the Professor if he/she is unable to attend either of the sessions.

Tardiness Policy
If a student is 5 minutes late for a class, the student is considered as tardy. Three tardiness are considered as one (1) absence.

Absence Policy
An absence may be defined as an excused or unexcused absence.

Excused absence includes but is not limited to the following:
- Personal illness
- Religious Holiday
- Birth of a child
- Death in immediate family (mother/father, siblings, child)
- All of the above involve prior communications/approval of the instructor

Unexcused Absence includes but are not limited to the following
- Personal reason, such as vacations or personal events
- Assignments not completed within the specified time by the instructor
- No valid explanation for absence
- Leaves the Lecture or Laboratory setting prior to the completion of the session
- All of the above involve no prior communications/approval of the instructor

A student must report to the specific instructor within 1 day of the return to class. During the meeting time, a student will submit a written explanation (professional letterhead) of the absence or the doctor’s excuse. All make-up work (laboratory exercises) will be performed one-week post absence or at a time designated by the faculty. If an examination is missed, the make-up examination will be done 1 week after the student submits documentation. If a student fails to present documentation one day after returning to class, the absence will be deemed as UNEXCUSED. There will be no make-up for unexcused absences. A student will receive a grade of zero (0) for the missed examination.

In order to successfully pass a course, the student must not incur more absence than the number of credit hours. Special circumstances will be evaluated on a case-by-case basis.

Students are required to adhere to additional policies as outlined by each Instructor in his/her syllabus regarding the disciplines.
VIII. CLINICAL EXPERIENCE

Students will complete an established Phlebotomy practicum on campus during the fall semester.

The clinical rotations will complete the final phase of the Medical Technology Professional Curriculum. Students will receive hospital, reference and clinical laboratory experiences in Maryland. These rotations will begin 5 months prior to graduation. There are four rotations of 18-20 days. Students will have the opportunity to experience clinical laboratory settings in rural, urban and metropolitan hospitals and reference laboratories.

Students will attend only the Program assigned clinical rotation.

Campus Clinical Practicum - An on-campus simulated or modified clinical rotation is provided when there is no available clinical rotation practicum from the clinical affiliates.

- Expenses
  During the phlebotomy rotation and the five months of clinical rotations, students are expected to bear the expense of the following:

  ➢ Appropriate Clothing
    Laboratory coat, slacks (no jeans), name tag, pastel top/sweater (no writing), appropriate scrubs

  ➢ Transportation – Each student is responsible for his/her own individual transportation to the clinical rotation sites. Assignments will not be made in pairs (students sharing means of transportation). The Program is not responsible for the students’ transportation to the clinical rotation sites. Location of assignments will be based on the available departments and not students’ proximity to the clinical rotation sites.

    ➢ The cost of parking at the clinical rotation sites may be a component of the transportation expense.

  ➢ Attendance – Students are required to begin the clinical practicums at the designated start times. If a student is absent for more than 3 days for a clinical rotation practicum, he/she will have to complete and repeat the clinical rotation. Specifics of the attendance policy are presented in the clinical practicum manual.
IX. NATIONAL CERTIFICATION EXAM

The Medical Technology Program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).* Program graduates are eligible to take the National Medical Laboratory Science Certification Examination offered by the American Society of Clinical Pathologists (ASCP). Awarding of the Bachelor of Science degree in Medical Technology is dependent upon successful completion of the MT curriculum and NOT the student passing any type of certification or licensure examination.

X. PROGRAM COSTS

In addition to the tuition and fees listed in the College Catalog, the following additional expenses are incurred by a student in the MT Program (all prices are approximate):

- Immunizations
- OSHA approved lab coat - $50.00
- Books - $400/semester (approximately)
- Parking at clinical sites – variable
- Tuition Refund Policy – See pg. 07 of the Morgan State University Catalog 2014-2015

XI. FINANCIAL AID

Information on financial assistance is available through the Financial Aid Office. The MT Program Director maintains a list of available scholarship opportunities for MT students.

The college, of necessity, reserves the right to make changes without prior announcement with respect to any matter see forth in these guidelines, including fees, charges, policies, regulations or requirements. These guidelines are not to be regarded as a contract.

Notice of Nondiscriminatory Policy

MSU admits students of any race, color, sex, religion, national or ethnic origin to all of the rights, privileges, programs benefits, and activities generally accorded or made available to students at the College. It does not discriminate on the basis of race, color, sex, religion, national or ethnic origin in administration of its educational policies, admission policies, scholarship and loan programs, and other college administered programs. The college is committed to providing all students with an education environment free of bias, discrimination, intimidation or harassment. In this regard, MSU complies with all relevant federal, state and local laws. The college also complies with all applicable laws and federal regulations regarding prohibition of discrimination and accessibility on the basis of age, condition of handicap, veteran status, or otherwise. Students needing special accommodation to ensure barrier free access should contact the Section Counselor.

*NAACLS, 5600 N. River Road, Suite 720, Rosemont, IL 60018; 773-714-8880
I HAVE READ, UNDERSTAND AND WILL COMPLY WITH THE MORGAN STATE UNIVERSITY MEDICAL TECHNOLOGY PROGRAM POLICIES LISTED IN THE PREVIOUS SECTIONS.

____________________________________  __________
Signature                                    Date

____________________________________  __________
Printed Name                                 Date

____________________________________  __________
Witness                                      Date
Morgan State University  
Medical Technology Program  
Clinical Practicum Rotation Checklist

| Student Name | | |
|-------------|-------------|
| Date of Completion | Comments |
| **Tuberculin survey status** | |
| **Measles and Rubella vaccination or antibody testing results** | |
| **HBV vaccine or declination** | |
| **Recent Flu Shot** | |
| **HIPAA Training** | |
| **Criminal background check** | |
| **Verification of Health Insurance Coverage** | |

24
FACULTY AND STAFF

Diane Wilson, Ph.D., MT (ASCP)  
Program Director  
Clinical Chemistry  
G67 Key Hall  
443-885-3611  
Diane.Wilson@morgan.edu

Mathumathi Rajavel, Ph.D.  
Assistant Professor  
Microbiology/Immunology  
106 Spencer Hall  
443-885-1553  
Mathumathi.Rajavel@morgan.edu

Anthony Ogbuka, MPH, MT (ASCP)  
Lecturer  
Hematology  
G62 Key Hall  
443-885-3425  
Anthony.Ogbuka@morgan.edu

ADVISORY COMMITTEE

Shaun Adams, MT (ASCP)

Jesse Brown, MT (ASCP)

Paul Griffey, MT (ASCP), MBA

Donna Cashara, MT (ASCP)

Deborah Records, MT (ASCP)