

**DEPARTMENT OF MEDICAL AND
RESEARCH TECHNOLOGY**



**2011-2012
STUDENT MANUAL
POLICIES AND PROCEDURES**

**THE DEPARTMENT OF MEDICAL & RESEARCH TECHNOLOGY (DMRT)
IS ACCREDITED BY:**

**NATIONAL ACCREDITING AGENCY FOR CLINICAL LABORATORY SCIENCES
(NAACLS)**

**8410 West Bryn Mawr Avenue
Suite 670
Chicago, IL 60631
(773) 714-8880
(773) 714-8886 – fax**

DMRT CONTACT INFORMATION:

**Sanford Stass, M.D., Chair
100 Penn St., Rm. 340
410-706-7729**

**Deirdre DeSantis Parsons, MS, MT (ASCP)SBB
Program Director
100 Penn St., Rm. 440-E
410-706-7664**

**UNIVERSITY OF MARYLAND
SCHOOL OF MEDICINE**

DEPARTMENT OF MEDICAL AND RESEARCH TECHNOLOGY

2011 - 2012 POLICIES FOR STUDENTS

INDEX

	Page #
General Policy Statement.....	6
Philosophy and Goals	6-7
Mission Statement.....	6-7
Core Values & Behavioral Norms	7-8
Non-Academic Standards	8
Career Entry Competencies	9
Academic Progress.....	9-10
Grading System.....	10
Pass/Fail	10
Change in Registration (ADD/DROP).....	11
Dropping a Course	11
Refund Schedule for Dropped Courses.....	11
Withdrawal for the Semester	11-12
Leave of Absence Policy (LOA).....	11-12
Cancellation	12
Tuition and Fees.....	13
Academic Policies.....	14
70/70 Rule.....	14
75/75 Rule.....	14
Examinations/Questions	14
Senior Final Exams	15
Baccalaureate	15
Post-Baccalaureate Categorical	16
Grievance Policy.....	16
Grade Appeal	16-17
Academic Dismissal.....	17
Reinstatement Procedures.....	18
Credit by Examination for Undergraduate/Professional Students	18-19
Application for Qualifying Examination to Waive a DMRT Course ..	19-20
Judicial Review System	20
Professionalism	20
Attendance/Tardiness.....	20-22
Inclement Weather Policy.....	22
Personal Appearance and Decorum	22-23
Dress Code	23-24
Department and Campus Security and Order	24
UMB Alerts.....	24
Identification	24

Faculty Offices.....	24
Student Responsibilities.....	25
Resource Room.....	25
Information Technology Resources.....	25
Mailboxes.....	25
Policy on Visitors.....	25
Classrooms.....	25
Laboratory Practices.....	25-26
Student Health Insurance.....	26
Medical Emergencies/Treatment.....	26
Student Exposures.....	27-28
Immunization Policy.....	29
Policy Statement.....	29
Requirements.....	29-30
Waivers.....	30
Clinical Rotations.....	31
Externships.....	31
Background Checks.....	31-32
Immunizations for Rotation.....	32
Clinical Rotation/Externship.....	32
Baccalaureate.....	32
Post-Baccalaureate Categorical.....	32
Evaluation of Students.....	32-33
Accelerated Rotations.....	34
Criteria for Qualifying for Accelerated Clinical Rotations.....	34
Protocol for Applying for Accelerated Clinical Rotations.....	34
HIPAA/Confidentiality Issues.....	34
Disclosure of Information.....	35
Service Work Performed by Student.....	35
Letters of Reference.....	35
Student Records.....	36
Clearance for Graduation.....	36
Student Employment.....	36
Professional and Academic Integrity.....	36
Rights and Responsibilities for Academic Integrity.....	36
Standards of Academic Honesty and Ethical Conduct.....	37
Honor Pledge.....	37
Use of Education Materials.....	37-38
Cheating.....	38
Sharing Materials.....	38
Classroom Assignments & Laboratory Activities.....	38-39
Course Assignments.....	39
Plagiarism.....	39
Professionalism and Civility.....	40
Respect.....	40
Cooperation.....	40
Nondiscrimination.....	40
Courtesy.....	40

Use of Electronic Devices.....	40
Electronic Devices on Rotations.....	40
Professional Qualities Objectives.....	41
Professional Qualities Evaluation.....	42
Sexual Harassment.....	43
Definition.....	43
Examples of Sexual Harassment.....	43
Student Remedies.....	44
Disability Support Services.....	44
Substance Abuse.....	45
Departmental Photographs.....	45
Student/Faculty Advisors.....	45
Address Changes.....	45
SOM E-mail Accounts.....	45
Recommendation for Success in DMRT Courses.....	46
Faculty Directory.....	47

APPENDICES

Appendix A

Curriculum.....	48-50
-----------------	-------

Appendix B

Course Descriptions.....	51-62
--------------------------	-------

Appendix C Forms

Application for Examination to Establish Credit/Undergraduate.....	64
Application for Qualifying Exam to Waive Course.....	65
Leave of Absence (LOA) Checklist.....	66
Accident & Injury Form.....	67
Release for Review of Student Personal Records Form.....	68
Student Agreement.....	69
Honor Pledge.....	70
Professional Qualities Evaluation.....	71
Declaration of Track for Senior Year.....	72
Application for Accelerated Rotation.....	73
Student Clinical Rotation/Externship Site Policy Agreement.....	74
Externships & Clinical Rotation Site Listing.....	75
Acknowledgement of Student Understanding & Agreement.....	76

**UNIVERSITY OF MARYLAND SCHOOL OF MEDICINE
DEPARTMENT OF MEDICAL & RESEARCH TECHNOLOGY**

STUDENTS MUST AGREE TO ABIDE BY ALL POLICIES AND PROCEDURES ESTABLISHED IN THESE DOCUMENTS. POLICIES AND GUIDELINES IN THE STUDENT MANUAL ARE SUBJECT TO REVISION AND CHANGE WITHOUT PRIOR NOTICE. * MEDICAL TECHNOLOGY AND CLINICAL LABORATORY SCIENCE ARE SYNONYMOUS.

PROFESSIONAL POLICIES - University of Maryland

The University authorities reserve the right to make changes in the curriculum, in the requirements for advancement and graduation, in fees, and in rules and regulations whenever appropriate.

The provisions of this publication are not to be regarded as an irrevocable contract between the student and the University of Maryland. The University reserves the right to change a provision or requirement at any time within the student's term of residence. The University further reserves the right, at any time, to ask a student to withdraw when it considers such action to be in the best interests of the University.

The University of Maryland is an equal opportunity institution with respect to both education and employment. The University's policies, programs and activities are in conformance with pertinent federal and state laws and regulations on nondiscrimination regarding race, color, religion, age, national origin, sex, and disability.

If you require special accommodations to attend or participate in the program or an activity, please provide information about your requirements to the DMRT Program Director at (410) 706-7664 (1-800-735-2258 TTY/Voice).

PHILOSOPHY AND GOALS

Mission Statement

To provide a program of instruction at the baccalaureate level which develops competence in ethical, principled laboratory scientists who possess the knowledge as well as the technical, interpersonal and attitudinal skills and attributes that create quality service.

In accordance with the philosophy and purposes of the University of Maryland School of Medicine, the Department of Medical and Research Technology (DMRT) is committed to the following goals:

- to encourage scientific and academic advancement, a commitment to life-long learning, and active participation in professional societies;
- to encourage the practice of moral and ethical values relating to patient care;
- to assist students in developing competency in analytical decision-making, thus preparing them to make appropriate judgments in their professional life;

- to assist students to develop enhanced skills in critical thinking, problem solving, and skills in oral and written expression;
- to provide the opportunity for student participation in a clinical/research setting designed to offer experiences required of an entry-level Medical Laboratory Scientist or Biotechnology Research Scientist;
- to provide and foster student professional development, high standards of achievement, and interactions among other health care practitioners;
- to provide a level of instruction which maintains a progressive and positive educational environment;
- to support a graduate curricula which serves as a natural extension of professional development for those who desire to serve in leadership roles in management, practice, education, and research in the field of medical laboratory science/biotechnology science research.

Core Values and Classroom Behavioral Norms

As part of our mission to develop laboratory scientists, the DMRT faculty and staff work collaboratively to cultivate adherence to the following Behavioral Norms for the DMRT Classroom.

Core Values:

- Academic Excellence
- Effective Teamwork
- Good Citizenship
- Fairness
- Civility and Respect
- Accountability
- Reliability
- Honesty and Integrity
- Responsibility for Patient Care and Confidentiality
- Commitment to Life-long Learning

Classroom Behavioral Norms

DO:

1. Arrive on time and be prepared by reviewing objectives, notes and protocols prior to lecture and laboratory sessions.
2. Read the procedure and related materials before going to lab.
3. Follow the dress code for lecture and laboratory as published in the DMRT Student Manual of Policies and Procedures.
4. Turn off electronic devices. Cell phones may be programmed on silence mode if needed.
5. Accept accountability in all that you do by taking ownership of your academic experience.
6. Be respectful, attentive and engaged during lecture and laboratory sessions.
7. Focus on teamwork by:

- a. Actively participating in lecture and laboratory activities
- b. Contributing responsibly and equitably to assigned group activities
8. Take initiative by asking timely and relevant questions.
9. Participate without dominating the discussion.
10. Be respectful in your communications with professors, staff and classmates.
11. Make pre-contact with professors to set-up a meeting in their office if needed. Discussions in the hallway are not productive or private. Visit professors at a mutually convenient time.
12. Practice good citizenship by keeping classrooms, teaching laboratories, the resource room, and facilities clean and litter free.

DO NOT:

1. Show up late for class.
2. Leave the classroom when taking a quiz, exam or assessment.
3. Leave lecture or lab early without clearing it in advance.
4. Send text messages, answer the phone, surf the Web or play games during lecture or lab.
5. Carry on side conversations during class.
6. Display disruptive behavior or create unnecessary background noise during lecture, lab and especially quizzes, exams or assessments. Examples include, but are not limited to, leaving and re-entering the room, tapping feet or pencils, paging through books, newspapers and magazines, fidgeting, reading other class materials, doing work from other classes. Be mindful of crinkling wrappers and closing doors quietly.
7. Send professors, staff or administrators e-mails that are written too casually or lack proper grammar.
8. Contact instructors or staff through Facebook or other social networks while you are enrolled as a student in the DMRT program.

NON-ACADEMIC STANDARDS*

The following *non-academic standards* represent the essential requirements of the Department that the student must master to successfully participate in the program and become employable:

- Identify visually cellular components and microorganisms utilizing a microscope.
- Interpret visually and distinguish biochemical reactions on slides, plates, and test tubes.
- Demonstrate sufficient manual dexterity in order to process specimens; operate, maintain, and repair laboratory equipment; carry out all aspects of laboratory testing procedures.
- Ambulate adequately to collect blood specimens from patients and to perform basic laboratory functions in an established time-frame.
- Demonstrate written and oral proficiency in the English language including the ability to read, write, and speak English fluently.
- Exhibit effective communication skills when transmitting data and/or information to faculty, classmates, physicians and other health care personnel.

*** Please note: It is the student's responsibility to notify the department of any change in status in the above stated abilities.**

CAREER ENTRY COMPETENCIES

One of the goals of the internship/externship is to ensure that each student leaves the Department with an understanding of the behavioral standards of the profession and that each student demonstrates a willingness to adhere to these standards. Following the completion of Department of Medical and Research Technology didactic coursework and internships/externships, the student will demonstrate the ability to:

1. produce high-quality and timely work to support value-added laboratory services;
2. communicate effectively, professionally and civilly at all times to enable consultative interactions with members of the health care/research team, external relations, customer service and patient/subject education;
3. comply with institutional policies regarding:
 - work practices and processes,
 - work schedules and proper "in-time" attendance such as arriving on time and limiting unscheduled absences,
 - issues of confidentiality,
 - dress code and appearance,
 - biomedical and chemical safety practices,
 - total quality management and/or good laboratory practices
 - management of discrepancies;
4. develop technical skills and organize time, materials, and equipment to perform procedures efficiently;
5. analyze procedures before attempting to undertake them, requesting assistance when necessary;
6. actively participate in performing assigned duties with attention to accuracy and cost efficiency;
7. adjust his/her schedule to accommodate completion of tasks/projects and institutional objectives;
8. correlate facts and principles of work procedures to identify potential problems and sources of error;
9. accept constructive feedback with a professional demeanor;
10. maintain composure, work quality, and professional relations with others, even under stressful conditions;
11. evaluate laboratory data and published research studies as an informed consumer.

ACADEMIC PROGRESS

Each student is solely responsible for his/her academic progress. To advance, each student must meet both the quantitative and qualitative requirements of each course in the Department of Medical and Research Technology. A description and listing of requirements for each course is provided at the beginning of the semester in the course syllabus. A student **cannot graduate** if a grade of D or F has been received in any course and/or has an outstanding "Incomplete" in **any** course in the Department. A student receiving a grade of D or F in any course is required to

repeat the course and obtain a passing grade of C or higher. In addition, a student will not be eligible for graduation if any prerequisite coursework remains outstanding.

Students should be familiar with the current University of Maryland Academic Regulations. Questions may be directed to the Office of Records and Registration, 111 N. Greene St. Phone Number: (410) 706-7480

Grading System

Final grades for didactic courses are recorded as follows:

A - 90 - 100%	D - 60 - 69%
B - 80 - 89%	F - below 60%
C - 70 - 79%	I - Incomplete

PASS/FAIL

Clinical rotation/externship courses are graded on a passing with excellence, pass, or fail basis. Students must pass each laboratory rotation in order to be eligible for advancement to subsequent rotations. A student **CANNOT** graduate without passing all clinical rotations/externships.

Final grades for laboratory practice courses and externships are recorded as follows:

P – pass
F – fail

I (INCOMPLETE)

An incomplete (I) is to be used **only** when mitigating circumstances (i.e., illness, unavoidable absence) have prevented the student from completing the course on time. It is to be viewed as a non-prejudicial entry on the student's record. It must be noted that the grade of "I" remains on the official student transcript. The final grade earned is recorded on the permanent record upon successful completion of the course and is indicated on the transcript as "I/final grade. The grade of "I" is given only to a student whose work in a course has been qualitatively satisfactory, "C" or above, but who has been unable to complete some small portion because of illness or circumstances beyond the control of the student. In **no** case will the mark of "I" be recorded for a student who has not completed the major portion of the course or is in jeopardy of not passing. The Incomplete may be removed upon completion of work assigned by Department faculty. All work must be completed before the student is eligible for graduation; otherwise, the "I" becomes terminal and equivalent to an "F."

No opportunities to improve a grade will be offered after the end of the course which is the final examination, unless an extended date for assignments has been indicated by the Course Coordinator. Additionally, no opportunities to improve a grade will be offered besides those specified in the syllabus and offered to ALL students.

CHANGE IN REGISTRATION (ADD/DROP)

The last day a student can **ADD** a course is one (1) week after instruction begins. After this date, no course can be added without a signed "Change in Registration" form and written permission of the Dean. The last day a student can **DROP** a course is before the midpoint of the semester or the mid-term examination after instruction begins. Refer to policy on "Dropping a Course."

DROPPING A COURSE

Dropping a course may only be done under special circumstances with input from the Course Coordinator and approval of the Program Director, or the DMRT Program Committee. A course dropped **before** the mid-point of the semester or the mid-term examination, whichever occurs last, will not appear on the official transcript. A course dropped **after** the mid-point of the semester or the mid-term examination, whichever occurs last, will appear as a "W" on the official transcript. Students will not be able to drop a course solely for poor academic performance. Dropped courses will be documented and explained in the student's official record at DMRT.

REFUND SCHEDULE FOR DROPPED COURSE(S)

An 80% refund on dropped courses will be issued for all students who are charged on a per credit hour basis, if courses are dropped before the end of the first week of instruction. No refunds are issued for dropped courses after the first week. **THERE IS NO REFUND** for full-time undergraduate students who drop courses thereby changing their status from full-time to part-time.

WITHDRAWAL FOR THE SEMESTER

A student may find it necessary to withdraw from the Department due to extenuating circumstances. Reinstatement **may be** possible upon the recommendation of the Admissions Committee if the student has withdrawn in good standing. Students must submit in writing to the Department Chair a request for reinstatement.

DMRT LEAVE OF ABSENCE (LOA) POLICY

An undergraduate DMRT student may apply for a leave of absence (LOA) for appropriate personal or professional reasons by writing a formal letter of request to the Dean of the School of Medicine. A student wishing to request a leave of absence (LOA) must meet with the DMRT Program Director who will discuss the implications of taking leave, refer the student to the appropriate campus resources, as needed, and assist the student in preparing a letter to the Dean. Appropriate reasons for LOA include: medical reasons, financial issues, military service and personal considerations, such as illness within the family or family care.

If the leave of absence takes place during a semester, the normal procedures for withdrawal from classes will be followed. The student must satisfy the authorities that he/she has no outstanding obligations to the school, return his/her student identification card, microscope key and clear any personal items and remove the lock from their locker.

Students considering a leave of absence are advised that LOA may affect financial aid and health insurance. University health insurance is only good through the last semester for which the student has been registered.

LOAs are intended to cover a significant temporary interruption of the student's academic program of study. Students who do not re-enroll within one calendar year must apply for re-instatement to determine if they are eligible for re-entry in the program as they may be required to repeat all or selected courses. (Refer to DMRT Reinstatement procedure)

Students on LOA are not authorized to participate in clinical activities, serve as an elected UM representative or represent the school/program/university at another organization.

Please note that degree requirements must be completed within five (5) years of original enrollment.

Students officially withdrawn from the school will be credited for all academic fees charged to them less the matriculation fee, in accordance with the following schedule from the date instruction begins:

Two weeks or less	80 per cent
Two to three weeks	60 per cent
Three to four weeks	40 per cent
Four to five weeks	20 per cent
After five weeks	0 per cent

DATE OF WITHDRAWAL (WD) MARK

ON or **AFTER** first day of instruction **WD**

ON or **AFTER** last day of instruction **WD** or **F**

A student who withdraws during the semester and does not file an **APPLICATION FOR WITHDRAWAL** with the Registrar will receive marks of failure in all courses and will forfeit the right to any refund to which he/she would otherwise be entitled.

CANCELLATION

Students who are advance registered and subsequently decide not to attend the University must notify the Program Director in writing, **prior to the first day of instruction**. If this office has not received notification of cancellation by 4:30 p.m. on the last business day before instruction begins, the University will assume the student plans to attend and accepts his/her financial obligation.

After instruction begins, students who wish to terminate their registration must submit an "**APPLICATION FOR WITHDRAWAL**" to the Program Director. Students are liable for all charges applicable at the time of withdrawal.

PROGRAM COMPLETION

The time limit to complete the undergraduate program is five (5) years.

***TUITION AND FEES

Policies regarding tuition and fees are as follows:

- A. Tuition and fees are due and payable **on** or **before** the due date stipulated on the billing invoice. Please refer to the DMRT Website for current tuition and fees at <http://medschool.umaryland.edu/DMRT>.
- B. Tuition and fees are to be paid in full. There will be no postponement of payment **except** for the following:
 - 1. financial aid awarded by the University that has not been completely processed, or
 - 2. bank loans (i.e., GSL) have not yet been disbursed.

In both (1) and (2) above, written documentation will be required from Student Financial Aid or the bank.

Any inquiries regarding tuition should be directed to the Office of Student Accounts at 410-706-2930.

- C. A student with outstanding financial obligations to the University, or to the Department, **will not** be permitted to graduate or advance to the next academic semester.
- D. ***Departmental Fees - Junior Year** \$610.00 minus the \$100 deposit.

***Part-time** students: Fees cover **both** years of Junior level courses

Departmental Fees - Senior Year** \$175.00

Departmental Fees – Categorical Students - \$400.00

**** All Departmental fees are non-refundable**

***** Tuition and Departmental fees are subject to change without prior notice.**

ACADEMIC POLICIES

70/70 RULE

For all junior level laboratory based courses, the assessment of student performance will be based on two components, 1) didactic competence and 2) laboratory skills. **To successfully complete the laboratory-based courses, students must attain a minimum average of 70% in both the lecture portion of the course and a minimum of 70% in the laboratory portion of the course.** Failure to do so will result in a final grade no higher than “D”.

75/75 RULE

For senior level medical technology and biotechnology students the policy of the 75/75 rule is as follows: **“For successful completion of any senior level course students must earn a minimum of 75% on the lecture portion of the course and a minimum of 75% on the laboratory section of the course”** for courses with a laboratory component. Failure to do so will result in a final grade no higher than “D”.

Any concerns regarding examination questions, tests and assessments must be communicated to the course coordinator within 3 working days of when the results are reviewed. After that, the examination or assessment is considered closed.

All examination questions and graded assessments are based on published course learning objectives. Objectives may be modified during the course at the discretion of the course coordinator, but prior notice to students will be provided.

Examination questions will not be returned for students to keep. Exams may be reviewed by appointment with the course coordinator. Students are NOT permitted to write down or copy questions verbatim from examinations and assessments.

Examinations and Examination Questions:

Most final exams will be comprehensive of all lectures and laboratories.

Any concerns regarding examination questions, tests and assessments must be communicated to the course coordinator within 3 working days of when the results are reviewed. After that, the examination or assessment is considered closed.

All examination questions and graded assessments are based on published course learning objectives. Objectives may be modified during the course at the discretion of the course coordinator, but prior notice to students will be provided.

Examination questions will not be returned for students to keep. Exams may be reviewed by appointment with the course coordinator. Students are NOT permitted to write down or copy questions verbatim from examinations and assessments.

SENIOR FINAL EXAMS

For all senior level medical technology and biotechnology courses the 75% minimum on cumulative final exams rule is: **“Senior medical technology and biotechnology students must earn a minimum of 75% on cumulative final exams for all senior level courses before progressing to the related clinical rotation or externship.** Any senior student who fails to obtain 75% must re-take the exam before the semester break and achieve a score of 75% to demonstrate competency in the content area. Failure to achieve a 75% on the re-take exam will result in the assignment of a final grade no higher than “D”. The student will not be released for rotation/externship and will be required to repeat the course.

*Please note that the grade achieved on the initial exam will be factored into the final grade for the course. Additionally, students will only be permitted retakes on a maximum of two final exams and retakes will only be administered after all scheduled final exams are taken.

Academic Program Requirements for Baccalaureate Degree Seeking Students

Students earning a Bachelor of Science degree must maintain a GPA of 2.0 or better at all times. If, upon completion of any semester, the student's GPA is less than 2.0, he/she will be placed on academic probation. “Academic Probation” is noted on the student's permanent record. Once the student's GPA is 2.0 or better the student will be removed from academic probation and his/her transcript will state "removed from academic probation." A student on academic probation for two semesters will be recommended to the Dean for dismissal. If a student receives a grade of "D" in any course the student will automatically be placed on academic probation regardless of their overall GPA.

STUDENTS WITH A GPA OF 1.0 OR BELOW FOR ANY SEMESTER WILL BE ACADEMICALLY DISMISSED.

GPA 1.1 - 1.9 for any semester Academic Probation
GPA below 2.0 for two semesters Academic Dismissal

Students on Academic Probation will be required to have a modified plan of study which may include a reduction in credit hours to part-time enrollment, assignment of a tutor, repeating a failed course, and/or auditing a course in which student performance was weak or marginal. Modified plans of study are developed and finalized by the DMRT Program Director.

Students must achieve a grade of "C" or better in all didactic courses. Students will be allowed to repeat a course only one time. Failure to achieve a grade of “C” or better in a repeated course will result in the student’s dismissal from the program. A student must have a grade of "C" or better in all courses as well as a minimum of 70% on all cumulative senior final exams in order to advance to clinical rotations/externships.

Academic Program Requirements for Post Baccalaureate Categorical Students

Students in Post Baccalaureate Categorical studies must maintain a 3.0 (B) average throughout their program of study. A student whose GPA for a semester falls below 3.0 will automatically be placed on departmental academic notice and will not be permitted to progress to the clinical practicum. Any student on departmental academic notice for two semesters will be dismissed from the Program.

A student whose progress in a course is not satisfactory will be notified by the Course Coordinator. Notice will also be given to the Program Director. In such cases, the student is responsible for scheduling an appointment with the Course Coordinator. During the appointment, the Course Coordinator, in consultation with the student, will develop a remedial plan for the student. The remedial plan may include recommendations that the student seek group or private tutoring, evaluation of study skills and time management skills, financial assistance, professional counseling or other measures. It is the responsibility of the student to implement the remedial plan and to correct unsatisfactory performance. The student may also contact the Program Director for guidance and to discuss Program policies including policies governing dropping a course, academic probation, dismissal and withdrawal.

Student Grievance Policy

The Department of Medical & Research Technology is committed to providing a learning environment in which student complaints are responded to promptly with impartiality, procedural fairness and confidentiality. The DMRT views student complaints as an opportunity to review and improve policies and procedures and gain insight into levels of student satisfaction. Depending on the nature of the complaint, students are encouraged to begin by formally expressing their concern with the lowest appropriate level of management, which is usually the course coordinator, and if not satisfied follow the organizational chain of command presented in the Student Grade Appeal procedure published in the DMRT Student Manual. Formal complaints made to the Program Director should be submitted in writing to ensure procedural fairness. Concerns may also be voiced informally at the periodic Town Hall meetings with the Chair. Any DMRT student on clinical rotation/externship may formally document a concern or grievance by completing the MT Student Grievance Report Form provided at Clinical Orientation and submitting for review to the Program Director. Records of formal student complaints and resolution shall be maintained securely in student files of the Office of Student Affairs.

Grade Appeal

Students may appeal a grade according to the following procedure:

1. Discuss with the Course Coordinator the rationale for the grade assignment being appealed. Justify to the Course Coordinator why you believe the grade should be changed. If you are dissatisfied with the Course Coordinator's final decision consult with the Program Director. Refer to #2.

2. Submit the appeal in writing to the Program Director. An Advancement Committee will be called to review the case. The Advancement Committee will consist of representative members of the Department's faculty and the Program Director. The faculty member(s) involved in the appeal will report to the committee if consultation as needed, but will not have a vote in the decision rendered. The Advancement Committee will forward its decision to the Chair for final approval. Upon approval, the student will be notified of his/her standing.
3. If the student is dissatisfied with the Advancement Committee decision, the final departmental level in the grade appeal process is to schedule an appointment with the Chair.
4. If the appeal is not resolved to the student's satisfaction at the departmental level, a grievance may be filed with the Dean of the School of Medicine. An Appeals Committee appointed by the Dean will hear the testimony of the appellant student and faculty member(s) involved. Immediately following deliberations, the Appeals Committee will make its recommendation available to the Dean for decision and action. The Department will uphold the decision forwarded by the Dean.

Academic Dismissal

Upon the recommendation of the Program Committee or an Advancement Committee of the Department of Medical and Research Technology, the Chair reserves the right to request the Dean of the School of Medicine to dismiss a student from the program for failure to meet academic and/or professional requirements.

If a student has been dismissed from the program, he/she has the right to appeal the decision. The dismissed student has the right to appeal according to the following:

1. The appeal must be submitted to the Dean of the School of Medicine in writing within ten (10) calendar days of the sending of the notification of dismissal;
2. The appeal request to the Dean must include specific reference to proceedings in the original decision that precluded proper procedure ensuring due process, right to counsel, and/or admissibility of evidence;
3. The student shall have access to his/her records of the previous decision;
4. The Dean of the School of Medicine will appoint an ad hoc Appeals Committee to further investigate the situation if the claims of improper procedure specified by the student are substantiated;
5. The Ad hoc committee shall recommend final action to the Dean.
6. The final decision is made by the Dean of the School of Medicine.

REINSTATEMENT PROCEDURES

Process for students in Good Academic Standing:

All requests for reinstatement must be in writing. These requests should be made to the DMRT Office of Student Affairs and must be received no later than six weeks prior to the start of the next semester.

The following information should be included in the student's written request:

1. The reasons(s) the student left the program.
2. What the student has been doing since leaving the program.
3. The reason the student wants to return to the program at this time.

Such requests are considered individually under these guidelines:

1. General admission policies of the University and the School prevail (e.g. University rules and regulations, space available).
2. Students may be reinstated only once.
3. Undergraduate students not in attendance at the DMRT program for one or more years will have their academic records reviewed by a DMRT Committee to determine placement in the program, and they may be required to repeat all or selected courses.
4. Upon reinstatement, undergraduate students not in attendance during the previous three years will be required to repeat all or selected courses.

It is important to note that degree requirements must be completed within five (5) years of original enrollment.

Credit By Examination For Undergraduate/Professional Students

Students with related work or life experience in a specific area may elect to take an examination for credit in place of a DMRT course with equivalent content.

1. Credit may be earned by examination for all Junior level courses except MEDT 309 Professional Development and MEDT 308 Scientific and Technical Writing. For senior courses credit by examination may be earned only for MEDT 421 Urinalysis/Body Fluids.
2. The applicant must be formally admitted to the University of Maryland Baltimore. Posting of credit, however, will be delayed until the student is registered. Matriculating students must be enrolled to take challenge exams.
3. Any student may take a course by examination by obtaining an application form from the Program Director, paying the requisite fee, and taking the examination at the time mutually agreeable to the student and the Department of Medical and Research Technology. Please see Appendix C for a copy of the application form.

4. Approval to take an examination in any course will depend upon the student having established credit in all prerequisites or having received the approval of both the Chair of the Department and the Program Director.
5. The total amount of credit that can be earned by the examination method, including both credits transferred and those earned at the University of Maryland, cannot exceed sixty (60) credits. Credit by examination will not normally be accepted for any part of the final 30 semester credits which must be completed in residence.
6. Credit by examination cannot be given for a course in which the student has formally registered and received a terminal mark of “D”, a failure (F) or incomplete (I).
7. No examination for course credit may be attempted more than once.
8. Letter grades earned on examinations to establish credit (if accepted by the student) are entered on the student's transcript and used in computing his/her cumulative grade point average. A student may elect to take an examination for credit on a “Pass/Fail” basis under the normal “Pass/Fail” regulations.
9. Application for credit by examination is equivalent to registration for a course; however, the following conditions apply:
 - a. A student may cancel his/her application at any time prior to completion of the examination with no entry on the permanent record, but forfeits the registration fees.
 - b. The Department makes the results of the examination available to the student prior to the formal submission of the grade. Before formal submission of the grade, a student may elect not to have this grade recorded.
 - c. The letter grade for the examination will be submitted by the Program Director to the Records and Registrar's Office on a Supplemental Grade Report Form.
 - d. A fee is charged for each course examination. This fee is paid upon application for examination and is non-refundable regardless of whether or not the student completes the examination or the results of the examination are recorded on the permanent record. The cost of the examination is the current cost of one (1) semester hour of credit.

Application for Qualifying Examination to Waive a DMRT Course

Students who have previously taken a course with equivalent content may elect to apply to take a qualifying exam to waive the equivalent DMRT course. The following conditions apply:

1. MLT/CLT* or Associate's degree or BS in Biotechnology*, Biology or Chemistry.
2. Upon entering the program a GPA of 2.5 or higher at the beginning of the Junior year.
3. Attained a grade of “B” or higher in course or course equivalent at transfer institution within the past 7 years.
4. Attain a grade of 80% or higher on the qualifying examination to be waived from the related course.

5. Qualifying examinations are offered for the following **junior level** courses:

MEDT 491 Clinical Immunology MEDT 331 Hematology I
MEDT 490 Pathogenic Microbiology

6. Qualifying examination is only offered for the following **senior level** course:

MEDT 421 Urinalysis & Body Fluids

7. Application for a Qualifying Examination must be submitted **no later than** 3 weeks prior to the semester in which course the offered and the examination must be taken no later than the first day of the related class.

* Students from a college with a current articulation agreement to waive designated courses are exempt.

JUDICIAL REVIEW SYSTEM

Please refer to the publication "Statement of Ethical Principles" Judicial Review System & By-laws of the Judicial Board Honor Code & Judicial Review System, UMSOM July 1, 1996, distributed at orientation.

PROFESSIONALISM

All DMRT faculty expect students to demonstrate the professional attitude and behaviors necessary for a career in clinical and biomedical laboratory science. Professional Qualities objectives that reflect professional attitude and behavior are distributed at the beginning of the semester and evaluated throughout the course by the Course Coordinator. In each course, students who exhibit unprofessional attitudes and behaviors in the classroom or laboratory setting may have up to 2% deducted from their final cumulative course grade.

ATTENDANCE/TARDINESS/LEAVING EARLY

Laboratory professionals must be reliable and dependable. They must report to work as scheduled and they must be on time. Since the development of professional responsibility is one goal of the Department of Medical and Research Technology, class attendance is **mandatory**.

Attendance – Didactic Courses at DMRT

Reliable attendance is one important aspect of professionalism. All DMRT students are required to adhere to the lecture and laboratory schedule by attending every class. If a student is to be absent he/she must contact the Course Coordinator prior to the start of the class session. For any incidence (day) of unexcused absence, two (2) points may be deducted from the final cumulative grade for the course. It is the *responsibility of the student to report to the Instructor within two days of return to campus. At that time, the student will submit a doctor's excuse or other explanation.* If a student fails to report to the instructor, the absence will automatically be

deemed unexcused. Any make-up work may be arranged at the discretion of the instructor. If an examination is missed, the make-up examination may be objective and/or oral at the discretion of the instructor(s).

Unexcused absences will not be made up. The student will receive a grade of zero for that period. If an examination is missed and the absence is unexcused, the student will receive the grade of zero for the examination.

There is no make-up option for missed laboratory sessions for any reason. The student is responsible for the content of the missed laboratory.

Attendance – Clinical Rotation/ Externship

Attendance in all areas of the clinical rotation/externship is **MANDATORY**. Students are expected to treat attendance at clinical rotations as they would employment. Students are required to arrive on time and remain at the rotation site until the completion of the day's assigned duties or as determined by the clinical preceptor.

Absence from clinical rotation/externship is not encouraged and any missed time due to absence, tardiness, or leaving early will be made up. Make-up time will be scheduled by the clinical preceptor at a time that does not interfere with the progress of the clinical rotation/externship. The policy for making up missed time to be determined by each clinical site. Please note that attendance, tardiness, and leaving early reflect student professional attributes and are documented on the Final Evaluation form for clinical/externship experiences.

In the case of student illness, such as the flu, upper respiratory infection or other illness that could be transmitted to patients the student is encouraged to stay home.

Absence, tardiness or leaving early during the clinical rotation/externship must be documented by either a phone call or e-mail from the student with one communication to the respective clinical preceptor and one to the Program Director (410-706-7664). If the clinical preceptor has concerns about UM student tardiness, absenteeism or leaving early, please contact a DMRT faculty liaison or the Program Director (410-706-7664).

Attendance at Post Rotation/Externship Day is **MANDATORY**. Students with an unexcused absence on Post Rotation Day will not be permitted to advance to their next rotation.

Tardiness/Leaving Early

Timeliness is another important aspect of professionalism. All DMRT students are expected to be "on-time". This is accomplished by adhering strictly to the lecture and laboratory schedule. The term "on-time" refers to being in your seat and ready at the published start time that a class, laboratory, or assessment is scheduled to begin. On-time also means returning from breaks and being in your seat and ready in the time allotted by the instructor. Being timely for class, lab and rotation is good practice for your future success in the workplace to plan ahead by allowing adequate time to be ready and travel to school on-time.

If a student will be late or must leave before the conclusion of the class, he/she must contact the Course Coordinator in advance of the related class/lab session and will explain the lateness or need to leave early.

Any student who arrives late for class is responsible for initialing the attendance sheet (so as not to be marked absent). If unexcused, the time missed will be documented and accumulated as unexcused time. Tardiness of 30 minutes or more will be considered an absence (refer to DMRT absence policy). After the first 3 occurrences of unexcused tardiness, a reduction of two (2) points will be made from the final grade. After this, one (1) point will be deducted for each occurrence of unexcused tardiness. Lateness may be deemed excused due to extensive extenuating circumstances as determined by the Department.

Students should be aware that habitual tardiness or absenteeism will adversely affect their academic standing.

Regular or patterned cumulative tardiness or absenteeism is unacceptable during the didactic portion and/or clinical rotation/externship. The Chair and Program Director reserve the right to evaluate the patterns of abuse and take the appropriate disciplinary action up to and including academic dismissal.

Inclement Weather Policy

Students on clinical rotations/externships are to make every effort to attend their practicum. Time missed due to inclement weather must be made-up unless the UM campus is officially closed. Absences must be reported to both the Program Director (410-706-7664) and the clinical preceptor at the laboratory site.

In the case of inclement weather and the campus is officially closed, the student is NOT obligated to report to the clinical site for rotation/externship. In the case of the campus delaying opening until 10:00 a.m. the student should report to the affiliate site by 10:00 a.m.

Sources of information concerning inclement weather announcements include: the Campus Emergency Information Phone number of 410-706-8622, the Campus Alerts web page at <http://www.umaryland.edu/alerts>, the TV station WBAL-TV, and the radio station WBAL (1090AM). Please note that the DMRT will close **ONLY** if the University of Maryland campus is closed. Students should also periodically check Blackboard for course specific announcements as well as their University of Maryland e-mail.

As a result of varying conditions, students are urged to use their personal judgment on whether to travel to the University of Maryland campus or to affiliate laboratories. Students are to also follow the attendance protocol as previously described in this manual.

PERSONAL APPEARANCE AND DECORUM

Since the environment of the UM campus and the laboratory affiliates of the Department is professional rather than typically collegiate, students shall conduct themselves at all times and in all places in a manner which will bring credit to the University, the School of Medicine, the Department of Medical and Research Technology and to themselves. Conduct of students in

public, particularly within the affiliated hospitals and laboratories, should conform to the highest professional standards.

Dress Code/DMRT

DMRT Students are required to follow a dress code appropriate to the profession. **Dress Code in the Didactic Classroom** and on Campus is less formal, but still encourages professionalism at all times with the following guidelines:

- Appearance is to be neat and clean, and demonstrate the use of good hygiene at all times.
- Student University ID badge must be worn at all times.
- Clothing with suggestive, political or offensive logos and hooded sweatshirts are not permitted.
- Hats and hoods are NOT permitted unless for religious/cultural reasons.
- Clothing should be clean, free from tears and not wrinkled or tattered.
- Students are not permitted to wear halter tops, tube tops or midriff tops.

In addition to the above requirements, a **Dress Code for Student Laboratories** is enforced to ensure the personal safety of all students. Students in violation of these policies will not be permitted to participate in laboratory exercises.

- Male students must wear long pants or scrubs with pockets. Socks are required when wearing pants or scrubs to cover legs below the hemline.
- Female students must wear pants, scrubs with pockets or skirts resting below the knee. Socks are required when wearing pants or scrubs; socks, stockings or hose are required when wearing a skirt to cover legs below the hemline.
- Cloth, open-toed or perforated shoes (such as crocs) are not permitted in the laboratories.
- Hairstyles which extend below the shoulder must be tied back.
- Jewelry must be limited; long necklaces, dangling bracelets or earrings extending below the jaw line are not permitted.

Clinical Practicum Dress Code

As professional representatives of the Department and the University of Maryland, students on clinical rotation or externship must adhere to the established dress code guidelines for the specific facility. In addition to observing the guidelines of the practicum site, students must adhere to the following minimum guidelines of the Department of Medical and Research Technology:

- Appearance is to be neat and clean, and demonstrate the use of good hygiene at all times.
- Clothing should be clean, free from tears and not wrinkled or tattered.
- Male students must wear long pants or scrubs with pockets. Socks are required when wearing pants or scrubs to cover legs below the hemline
- Female students must wear pants, scrubs with pockets or skirts resting below the knee. Socks are required when wearing pants or scrubs; stockings or hose are required when wearing a skirt to cover legs below the hemline.

- T-shirts, sweat shirts, hooded sweat shirts, strapless tops, mid-driffs, halter-tops, tube tops and tops with plunging necklines are not permitted. Shirts with a collar are recommended.
- Miniskirts, shorts, blue jeans, sweatpants and running pants are not permitted.
- Cloth, open-toed or perforated shoes (such as crocs) are not permitted in the laboratories. This includes canvas tennis shoes and crocs.
- Hairstyles which extend below the shoulder must be tied back.
- Jewelry must be limited; long necklaces, dangling bracelets or earrings extending below the earlobes are not permitted.

During clinical rotations/externships, students must also adhere to the established dress code guidelines of the specific laboratory. Students should consult with the affiliate institution for site specific information. Instances when a student does not conform to the dress code will result in appropriate disciplinary action, including removal from rotation.

DEPARTMENT AND CAMPUS SECURITY AND ORDER

UMB Alerts

UMB Alerts is an alert system that allows the University of Maryland to contact you during an emergency by sending text messages to your:

- E-mail account (school, personal, other)
- Cell phone
- Pager
- Blackberry/Treo
- Personal devices capable of receiving SMS text messages

Please visit <http://www.umaryland.edu/alerts> for more information.

Students are responsible for maintaining security, neatness, and order in all departmental areas.

A. Identification

Students must wear a University Identification badge at all times and abide by the University's security regulations. When on rotation/externship, additional identification that may be required by the laboratory affiliate must be worn at all times and students must abide by the affiliates' security regulations. Students who lose their UMB1ONE badges must notify campus police and the DMRT Program Director immediately. The student will absorb the cost of a replacement badge.

B. Faculty Offices

1. See page 43 for a list of faculty and their office locations.
2. Offices are restricted areas. Do not enter any faculty office without knowledge and/or consent.
3. All outgoing phone calls are to be made on public phones located in the first floor lobby. Incoming calls will be restricted to EMERGENCY MESSAGES ONLY.

C. **Student Responsibilities**

Students are responsible for personal property and care of the departmental and affiliate institutional property.

D. The **Resource Room** is located on the 4th floor of the Allied Health Building, room 411. Resource Room materials are to be loaned only to faculty. Students may use but may not remove materials from the Resource Room.

E. Use of UM and UM Affiliate **Information Technology (IT) Resources** must be responsible, professional, and in a manner consistent with the law and the opportunities of others to use the IT Resources. In general, acceptable use of UM resources include support of research, education, and administrative activities. For the full description of the IT policy refer to the *UM Student Answer Book*.

F. **Mailboxes**

Student mailboxes are located on the 4th floor corridor outside of room 440. Faculty and staff mailboxes are located in the main office areas on the 3rd and 4th floors. All DMRT faculty, staff, and student mailboxes are protected under Federal Laws, and tampering with anything placed in a mailbox may be punishable according to those laws. Tampering with information placed in any mailbox may also result in suspension and/or dismissal from the school.

G. **Policy on Visitors**

Due to campus security and safety regulations, students are NOT permitted to bring young children and/or siblings to school with them. Children, as well as adult visitors, are not allowed in the student lounges and the Department is not responsible for their care.

H. **Classrooms**

1. Eating/drinking is not allowed in any classroom.
2. All personal belongings are to be placed in *assigned* lockers. Books and other materials not being used should be kept in the lockers. Lockers are the property of the University and are not to be written on, and/or defaced in any way. A copy of the student's lock combination must be on file in the Student Affairs/Program Director's office. Food and drinks are not to be kept in lockers. Room 411, the Student Resource Room has facilities for students' use as a lunchroom. **Each student is responsible for removing all personal belongings and their lock from assigned lockers before leaving for summer break.**
3. Cell phones are not permitted in the classroom.

I. **UM Smoking Policy**

UM is a non-smoking campus and prohibits smoking in university owned/leased buildings (including the Allied Health Building), property outside of buildings or on any campus courtyard or other designated outdoor areas. Please refer to the UM Student Answer Book for more information.

J. **Laboratory Practices**

The following practices will be adhered to by students in the laboratory. They are in compliance with the Occupational Safety and Health Administration (OSHA) guidelines, and

are enforced to ensure the personal safety of students. Violation of these policies will result in immediate disciplinary action. Repeat violations may result in dismissal from the program. Students are responsible for cleaning the laboratory areas, and maintaining proper laboratory safety practices.

1. Standard laboratory precautions will be practiced at all times.
2. Personal protective equipment (PPEs) such as lab coats will be worn in the laboratory at all times. Lab coats are not to be worn outside the laboratory or laundered by the student.
3. Gloves must be worn when handling biological or hazardous materials.
4. DMRT students in all laboratory sessions will wear protective eye wear at all times except when using the microscope, performing phlebotomy, or at the discretion of the instructor.
5. Splash shields are to be utilized when appropriate.
6. Eating, smoking, chewing gum, drinking, applying cosmetics and handling of contact lenses are prohibited in the laboratory.
7. Biological waste and sharps are to be disposed of in appropriate containers.
8. Students are not permitted in departmental or affiliated laboratories unattended.

STUDENT HEALTH INSURANCE

All Students enrolled in 9 or more credits must carry health insurance.

Student Accounting bills full-time students for health insurance in the fall and spring. Students with comparable insurance must show proof of coverage to obtain a waiver. Students interested in receiving an insurance card sooner are advised to self-enroll on the insurance carrier's web site. Student Accounts sends out letters detailing how to self-enroll. Student Health insurance at UM includes prescription coverage. Please contact Student Accounting at 410-706-2930 for further details.

MEDICAL EMERGENCIES/TREATMENT

- A. For medical attention during class hours, students should notify the faculty and then report to the Campus Health Service, 29 South Paca St., phone (410) 328-6791. When on clinical rotations/externships, supervisory personnel should be consulted as to the procedure following illness or accident; or the student's private physician should be consulted.

ALL ACCIDENTS MUST BE REPORTED TO THE FACULTY MEMBER IN CHARGE OF THE LABORATORY AND AN INCIDENT REPORT FORM MUST BE FILED IN THE DEPARTMENT BY THE FACULTY MEMBER. ACCIDENTS IN THE AFFILIATE LABORATORIES MUST BE DOCUMENTED ACCORDING TO INSTITUTIONAL POLICIES. THE DMRT MUST BE NOTIFIED IMMEDIATELY OF ANY INCIDENT/ACCIDENT INVOLVING A STUDENT DURING THEIR LABORATORY PRACTICUM. AN INCIDENT FORM MUST BE FILED IN THE STUDENT'S RECORD.

Cost: All costs for medical treatment or post-exposure evaluation and follow-up activities for students are the responsibility of the student. All full time DMRT students

are required to have health insurance and the insurance will be billed for all medical services.

B. Post-Exposure Evaluation and Follow-Up for Students

All student exposure incidents must be reported, investigated, and documented (see Accident & Injury report form in Appendix C).

Exposure at DMRT

When a DMRT student has an exposure incident at DMRT, the student must report it to the faculty responsible for the course. That faculty must then inform the Program Director as soon as possible and complete the Accident and Injury form. Students with potential exposure must report to the Student and Employee Health Clinic at 29 South Paca Street if the potential exposure occurred Monday, Tuesday, or Thursday, 8:00 AM to 4:30 PM or Wednesday and Friday, 8:00 AM to 4:00 PM. When a student has a needle stick injury, the faculty member responsible for the course must contact the Needle Stick Hotline by dialing 410-328-2377 and page extension 7845. Current CDC guidelines call for initiation of medical treatment of high-risk exposures within 2 hours. *Please refer to the DMRT Safety Manual for further detail.*

Exposure at Affiliates of DMRT

If a DMRT student has an exposure incident at an affiliate laboratory the student must inform that laboratory's Education Coordinator or the immediate supervisor to begin the post exposure follow-up procedure. Some affiliate laboratories will perform the testing of both the student and the source individual's blood. However, other affiliates may send the student back to the Student and Employee Health Clinic at UM for all testing. It is important that ALL students know the affiliates' policy concerning student exposure to blood borne pathogens PRIOR to an incident occurring.

THE DMRT MUST BE NOTIFIED IMMEDIATELY OF ANY INCIDENT/ACCIDENT INVOLVING A STUDENT DURING HIS/HER LABORATORY PRACTICUM. AN INCIDENT FORM MUST BE FILED IN THE STUDENT'S RECORD.

Following a report of an exposure incident, the affected student must receive a confidential medical evaluation and follow-up, including a minimum of the following elements:

- Documentation of the route of exposure and the circumstances under which the exposure incident occurred.
- Identification and documentation of the source individual, unless it can be established that identification is infeasible or prohibited by state or local law.
- The source individual's blood will be tested as soon as feasible after consent is obtained to determine HBV and HIV infection. If consent is not obtained, the person responsible

for the Hepatitis B vaccination program will establish that legally required consent cannot be obtained. When the source individual's consent is not required by law, the source individual's blood, if available, will be tested and the results documented.

- When the source individual is already known to be infected with HBV or HIV, testing for the source individual's HBV or HIV status needs to be repeated.
- Results of the source individual's testing must be made available to the exposed student along with information on applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

Collection and testing of blood for HBV and HIV serological status will comply with the following:

- The exposed student's blood will be collected as soon as feasible and tested after consent is obtained.
- The exposed student will be offered the option of having their blood collected for testing of HIV/HBV serological status. The exposed individual **MUST** have a blood test for HIV if the source patient consents for testing.

All DMRT students who experience an exposure incident will be offered post exposure evaluation and follow-ups in accordance with the OSHA standard. The health care professional responsible for the student's Hepatitis B vaccination and post-exposure evaluation will be provided with the following:

- A copy of 29 CFR 1910.1030, <http://www.osha.gov>.
- A written description of the exposed individual's duties as they relate to the exposure incident.
- Written documentation of the route of exposure and circumstances under which exposure occurred.
- Results of the source individual's blood testing, if available.
- All medical records relevant to the appropriate treatment of the person, including vaccination status.

The exposed student will be provided a copy of the evaluating health care professional's written opinion within 15 days of the completion of the evaluation.

The health care professional's written opinion for HBV vaccination must be limited to whether HBV vaccination is indicated and if the student has received such vaccination. It will include a statement that the student has been informed of the results of the evaluation and of any medical conditions resulting from exposure to blood or OPIM (other potentially infectious material) which required further evaluation or treatment. All other findings or diagnoses must remain confidential and will not be included in the written report.

IMMUNIZATION POLICY

I. Policy Statement

The University of Maryland strives to be a model health promoting campus and to support both the health of its students and the people of the community with whom they come in contact. All students, both full- and part-time, who wish to qualify for enrollment at the University must satisfy the University's immunization requirements. All costs of student compliance with the immunization requirements are the responsibility of the student.

UM Immunization Policy and immunization requirements are based on Maryland law and public health recommendations of the U.S. Centers for Disease Control and Prevention. The policy and the requirements will be reviewed periodically and revised as necessary.

II. Requirements

- A. A report of Medical History form which includes an immunization history shall be mailed to all new students and must be completed and returned to Student Health **prior to** the student's initial registration.
- B. All incoming students are required to provide to the satisfaction of Student Health:
 1. Proof of immunization for measles, mumps, and rubella (students born before 1957 are considered immune to measles).
 2. Certification of varicella (chicken pox) immunity by
 - a. history of disease;
 - b. proof of vaccination or
 - c. by way of a positive titer.
 3. Evidence of immunization against tetanus/diphtheria within the past 10 years.
 4. **Tuberculosis**
Each student must provide the results of tuberculosis screening that has been performed within 12 months of the date of the student's enrollment. Screening must show a negative PPD test or, if the PPD is positive, a negative chest X-ray report. **Please note: All incoming students must provide the results of 2 negative tuberculosis screening tests performed 3 months apart.**
 5. **Hepatitis Immunization**
Students enrolled in the program must be immunized against Hepatitis B. The Hepatitis B series can be initiated during the first semester of enrollment.
 6. **Meningitis**
All students who live in on-campus student housing must receive a

vaccination for meningococcal disease or sign a waiver stating that the student has received and reviewed information provided by the University about meningococcal disease and has chosen not to be vaccinated.

7. Students may be required to comply with additional immunization requirements specified by a particular School or program. Students should check with their School and program to determine which requirements may not be waived, and the possible curricular implications of waiving other immunization requirements.
8. To participate in clinical training at non-university sites, students must comply with the health and immunization requirements of the training sites.
9. **Those students not adhering to University policy governing immunizations will not be allowed to register for subsequent semesters or to advance to their practicum.**

III. Waivers

Immunizations required by law or mandated by a UM school or program will not be waived. For example, the requirement for immunization against Hepatitis B cannot be waived by students in the program. Except for the following:

- A. A student may receive a waiver on health grounds if he/she presents a written statement from a licensed physician or a local deputy state health officer indicating that immunization against any or all of the diseases for which immunization is required is medically contraindicated, detrimental to, or not in the best interest of the student. The physician's statement shall state whether the contraindication is permanent or temporary and, if temporary, provide assurance that the student will receive immunizations(s). The student subsequently must furnish evidence of completion of immunization at the first reasonable opportunity. In the absence of such evidence, the student will not be allowed to register.
- B. Any student who objects to immunization upon grounds that immunization conflicts with his or her bona fide religious beliefs and practices may request a religious waiver. A waiver on religious grounds may be obtained by submitting a written request to Student Health. This waiver will not apply in case of an emergency or epidemic of disease which is declared by the Secretary of Health and Mental Hygiene or the Secretary's designee. Students requesting religious waivers should refer to this policy and contact their School or program for possible curricular implications.

CLINICAL ROTATIONS

Each student who meets the academic criteria and professional standards for advancement to clinical rotations will be placed at an affiliate site. Every effort is made to assign senior and categorical medical technology students to clinical rotations according to geographical area(s), availability and student interest. However, due to rotation commitments by the affiliates, special arrangements may be required for student placement in clinical affiliate laboratories. The final decision for all rotation placements is made by the program. **Once clinical rotation sites are assigned to the student no changes to the schedule will be made.**

The program works closely with the clinical affiliates to assure that all rotation experiences provide comparable entry level skills and training. A standardized set of Clinical (Behavioral) Objectives and rotation related policies have been developed with input from the clinical affiliates and are distributed annually at DMRT's Clinical Orientation. Prior to release to clinical rotation each student will sign a statement acknowledging agreement to adhere to departmental and affiliate policies and procedures (See Appendix C).

EXTERNSHIPS

Every effort is made to assign senior biotechnology students externships according to the geographical area(s) selected by the student. However, due to externship commitments by the affiliates, students may be required to rotate through a externship site not in their immediate geographical area. **Once externship sites are assigned to the student no changes to the schedule will be made.** Externship interviews may be required by the site and will be conducted **before** Fall finals week. Prior to release to externships, each student will sign a statement acknowledging agreement to adhere to departmental and affiliate policies and procedures (See Appendix C).

BACKGROUND CHECKS

DMRT's academic requirements involve placement at one or more off-campus training sites, such as hospitals and other institutional settings. These off-campus clinical sites routinely require students to undergo and pass a background check and, in some cases, drug testing.

More and more hospitals and other clinical training sites are requiring criminal background checks and drug tests to protect the safety of patients and other persons at these facilities, and to ensure the confidentiality of patient information.

Each training site sets its own standards for a background check and/or drug testing and typically conditions placement at the site on passing the check. You may also be asked by the training site to pay the cost of the background check and drug testing. You may have to complete more than one criminal background check and drug test during the course of your rotations, depending on the number of sites at which you are placed and the requirements of each site.

If you fail a site's criminal background check or drug test, you may be unable to complete your course requirements. It is important for you to consider this before you enroll. The Department has no obligation to refund your tuition or fees, or to accommodate you in the event that you fail a background check or drug test and, as a result, are unable to complete your course

requirements. You should also be aware of the possible consequences under the campus Substance Abuse Policy. (See: <http://cf.umaryland.edu/hrpolicies/section7/t70110Asa.html>.)

IMMUNIZATIONS

In addition to the immunizations required by UM and the State of Maryland, many affiliates also require the Influenza vaccine for all students rotating at their facility. Influenza vaccinations are offered by UM Student Health, many affiliates or a personal physician.

Clinical Rotations/Externships for Baccalaureate Students

Clinical practicums are graded on a pass/fail basis. Grades are “Passing with Excellence” (PE), “Passing” (P), or “Failing” (F). The minimum pass level for a clinical practicum is “P”. In addition to obtaining a passing grade, the student must also achieve a grade of 70% or higher on the discipline-specific, post-rotation examination.

Clinical Rotations for Post-Baccalaureate Categorical Students

Clinical practicums are graded on a pass/fail basis. Grades are “Passing with Excellence” (PE), “Passing” (P), or “Failing” (F). The minimum pass level for a clinical practicum is “P”. In addition to obtaining a passing grade, the student must also achieve a grade of 80% or higher on the discipline-specific, post-rotation examination..

Evaluation of Students on Rotation/Externship

1. Evaluation of a student's progress is the responsibility of the DMRT faculty liaison and the clinical faculty at each clinical rotation/externship. The clinical faculty member has the prerogative to determine the grade based on the student’s performance and professional behavior. The grade will be assigned in accordance with standard DMRT learning objectives and the standard DMRT grading scale.

At the beginning of each course and clinical rotation/externship, the student will be informed of these policies and all other policies relevant to the course.

2. It is the student's responsibility to be aware of the date and time of scheduled evaluations.
3. Advancement from the didactic portion of the program to the laboratory portion in the senior year will be based on the student's overall academic record and professional behavior. Progression to clinical rotations/externships is only permitted upon successful performance in both these areas. The Interim-Chair reserves the right to deny advancement to clinical rotation/externship if any concerns related to professional behavior have been raised.
4. Twelve semester hours of Clinical Practice/Externship are taken on a Pass/Fail basis. A grade of "P" is not included in the calculation of the grade point average. Successful completion of each Clinical Practice/Externship component is required before graduation.

The Interim and Final evaluations are used by the clinical faculty to determine final grades in addition to any written or oral examination procedures administered on site:

The Interim Evaluation is to be used by the clinical/externship instructor to monitor the student's progress *during* rotation/externship. This evaluation is an indication of the student's progress and performance. It should reflect the student's potential to successfully complete the rotation/externship. It will be collected during the faculty site visit.

The Final Evaluation was developed by academic faculty of the Department of Medical and Research Technology. This evaluation must include a recommendation for a grade, formal evaluation, and documentation of specific observed behaviors with appropriate narrative comments. Successful demonstration of acceptable affective behavior and attendance in accordance with the Department's policies and procedures will be required of all students in order to pass laboratory courses. It is the student's responsibility to return the original copy of the clinical professional evaluation in a sealed envelope to the Program Director on the post rotation day. Final evaluation forms become a part of the student's permanent record. The evaluations are confidential and utilized by program officials when recommendations are requested by prospective employers, graduate schools, professional schools, etc.

NOTE: Each student is required to complete a form authorizing release of information for **each** letter of recommendation for future employment at senior orientation in the beginning of the school year.

Students will evaluate their rotation/externship experience utilizing the following evaluative tools:

The Self Evaluation enables the students to rate themselves for comparison with the professional evaluation filled out by the clinical supervisor. This evaluation may also be used to assess student strengths and weaknesses. This form is to be filled out by the student at the Department on Post Rotation days.

The Laboratory Evaluation allows each student to evaluate his/her laboratory experience. This evaluation will be reviewed and used for possible curriculum revision. This form is to be completed by the student at the Department on Post Rotation Days and is reviewed with the clinical faculty in that discipline.

Clinical Rotation/Externship – Academic Failure/Removal

Removal from a clinical rotation/externship based on unethical behavior and/or unprofessional conduct can result in IMMEDIATE SUSPENSION. An Advancement Committee will convene to evaluate the student's case and will forward its recommendation for action to the Department Interim-Chair for approval. If warranted, the case will be forwarded to the Judicial Board or the Office of Student Affairs in the Medical School. The decision made by the Dean of the School of Medicine is **FINAL**. The Department of Medical and Research Technology will adhere to this decision.

Academic Failure of a Clinical Rotation/Externship

Failure of a laboratory rotation or externship (grade of "F") can result in academic dismissal.

ACCELERATED ROTATIONS (for Medical Technology Students only)

Criteria for Qualifying for Accelerated Clinical Rotations

1. Certified MLT or CLT.
2. Earned average of "B" or better in each discipline (at DMRT and the articulating program) where the student is requesting an Accelerated Rotation.
3. Entering GPA of 3.0 or better at the beginning of the Junior year.
4. CLS/MT rotations must occur within three (3) years of the CLT/MLT rotations, or the student must show recent (within three years) related work experience in the discipline where the student is seeking an Accelerated Rotation.

Protocol for Applying for Accelerated Clinical Rotations

1. Submit an Accelerated Rotation Application to the Program Director with a copy of ASCP Board of Certification (BOC) number and a resumé detailing previous work experience in the Medical Laboratory Sciences. (See Appendix C)
2. The request will then be forwarded to the appropriate faculty Course Coordinator(s) for consideration.
3. Final Approval will be made by the Program Director.
4. If approved, DMRT will forward to the clinical affiliate the recommendation for Accelerated Rotation for the student prior to rotation.

An affiliate may deny a student an accelerated rotation if a student does not demonstrate adequate competency in the assigned discipline, in which case the Clinical Rotation will automatically convert to the standard rotation time.

HIPAA AND RELATED CONFIDENTIALITY ISSUES

Students are required to complete the online HIPAA course offered at UM. Prior to participating in the clinical externship rotations, the student is required to sign a form whereby he/she agrees to abide by the rules and regulations of the clinical sites utilized by the program while on their premises during any assigned clinical or research rotations. Clinical sites may require the student to satisfy their specific HIPAA policies.

DISCLOSURE OF INFORMATION

In accordance with "The Family Educational Rights and Privacy Act of 1974" [P.L. 93-380 (FERPA)], popularly referred to as the "Buckley Amendment", disclosure of student information, including financial and academic, is restricted. Release of information to anyone other than the student requires a written waiver from the student (see Appendix C). It is the policy of the University of Maryland to:

- A. permit students to inspect their educational records;
- B. limit disclosure of personally identifiable information from educational records without student's prior written consent; and
- C. provide students the opportunity to seek correction of their educational records where appropriate.

SERVICE WORK PERFORMED BY STUDENTS

Students are not expected to provide "service work" for the clinical site during their clinical practicum rotations. After demonstrating proficiency, students may be permitted to perform procedures under qualified supervision; however, it is the responsibility of the supervising employee for final verification of the data and release to the LIS (laboratory information system). Discipline specific course objectives are provided for each clinical rotation.

Any service work by students in the clinical setting outside of the academic hours is non-compulsory. If a student chooses to be hired by a clinical site for a job that does not require a certified medical technologist (MT), the work hours must be scheduled at a time other than class hours (e.g., evenings or weekends). In such cases, the student is a *bona fide* employee of the site and the work is not considered to satisfy any part of the student's clinical practicum rotation.

LETTERS OF REFERENCE

Writing a letter of recommendation is an optional activity for faculty. Any student requesting letters of recommendation is required to provide the following:

- A. complete list of references electronically or on diskette (if multiple references),
- B. addressed and stamped envelopes,
- C. a signed "Release and Waiver Form for Professional Reference" (Appendix C) for each letter requested
- D. submit request for letters **no less than 2 weeks prior to due date**
 - it is at the discretion of the faculty member to write letters of recommendation
 - **letters of reference should not be requested during high volume times such as the weeks prior to and including the weeks of graduation and orientation, as well as the first and last weeks of class**
 - generic letters of recommendation will not be written such as "To Whom it May Concern"

STUDENT RECORDS

Student records consist of admission documents, unofficial grade reports that include grades and the sequence of courses, counseling records and program related letters and memorandums. All records are permanently maintained in a locked storage room at the Department of Medical and Research Technology (DMRT). Records are filed according to the year of graduation and are kept confidential. Only the program director, education coordinator and admissions specialist have access to student files. Students may review their file by request. Official University transcripts may be obtained through the UM Office of Records and Registration.

CLEARANCE FOR GRADUATION

An Application for Diploma form must be filed with the Office of Records and Registration.

Submission of the Application for Diploma form must be filed by the following dates:

Spring Graduation	-	no later than February 9 th
Summer Graduation	-	no later than June 9 th
Fall Graduation	-	no later than September 9 th

In addition, any student receiving financial aid must attend an exit interview conducted by the Office of Financial Aid.

Please Note: Conferring of the Bachelor of Science degree is not contingent upon passing the national certification examination(s).

STUDENT EMPLOYMENT

To support academic success, it is the recommendation of the Department that students not maintain full-time employment and work no more than 16 hours per week. If additional funds are required, financial aid avenues should be pursued. Contact the University of Maryland Financial Aid at (410) 706-7347 or a DMRT representative for scholarship opportunities.

PROFESSIONAL AND ACADEMIC INTEGRITY

Students are expected to maintain professional conduct on the University of Maryland campus and in clinical/externship settings at all times.

RIGHTS AND RESPONSIBILITIES FOR ACADEMIC INTEGRITY

The academic setting is characterized by reasoned discussion between student and teacher, a mutual respect for the learning and teaching process, and intellectual honesty in the pursuit of knowledge. Please refer to the section on Rights and Responsibilities for Academic Integrity in the "The Student Answer Book" distributed at orientation.

Standards of Academic Honesty and Ethical Conduct

Academic honesty and integrity guide the learning process and are fundamental values in a community of professionals. The Honor Code of the University of Maryland School of Medicine places the responsibility of ethical behavior squarely on each individual and requires formal review of questionable behavior. Each student as a member of this academic community is given notice that joining this institution voluntarily commits the individual to understand, accept and practice the general principles of ethical behavior promoted in the Honor Code.

Academic honesty and ethical conduct are expected from all students enrolled in courses and programs offered by the Department of Medical and Research Technology. Violations of the policies on academic honesty and ethical conduct will not be tolerated and will be formally addressed through Departmental and/or campus systems. Sanctions may include no credit on the assignment in question, course failure, and/or formal charges of student misconduct. Formal charges can result in academic probation or dismissal.

Violations of academic honesty and ethical conduct include, but are not limited to, plagiarism, cheating, falsification of data/results, obtaining unauthorized assistance from and/or giving unauthorized assistance to another individual during an examination or completion of an assignment, collaboration with other students on projects or assignments without the instructor's knowledge, as well as misuse of UM documents, identification cards and computers.

Failure to comply with the policies on academic honesty erodes one's own personal integrity and character and devalues grades, degrees and the institution. For more detailed information, please refer to pages 12-14 of the "Statement of Ethical Principles" UMSOM, July 1, 1996 distributed at orientation.

Honor Pledge

As members of this academic community, students in the Department of Medical and Research Technology make a commitment to uphold the values and principles of this Institution. The following Honor Pledge will be distributed with examinations, laboratory practicals, written papers and other designated assignments for student signature.

Please note that ALL DMRT students are required to uphold the Standards of Academic Honesty whether or not they choose to sign the Honor Pledge.

"As a student of the University, I pledge that I have followed the standards of academic honesty and ethical conduct and have neither given nor received any unauthorized assistance on this academic work, thus affirming my own personal commitment to honor and integrity."

Please refer to Appendix C.

USE OF DMRT EDUCATIONAL MATERIALS

DMRT learning materials are for use within the DMRT academic program only. Students should assume that all DMRT learning material is protected by copyright and cannot be used

except for the purposes expressly authorized by the Department. Students and others using these materials without the express written authorization of the author for purposes other than the DMRT academic program may be subject to claims of copyright infringement and violation of the Honor Code.

Academic Dishonesty: Cheating and Plagiarism

Cheating

Cheating is a type of academic dishonesty. It involves an act of fraud, deception or misrepresentation of one's academic work in order to increase one's grade or academic standing by trying to obtain an unfair advantage. Some examples are:

A. Quizzes, Tests, Laboratory Practicals, Examinations

- Communicating with another student or other individual during a test, quiz, practical, or examination. Copying from another student or allowing another student to copy your work during a quiz, test, practical, or examination.
- Taking a quiz, test or examination for another student.
- Using unauthorized notes or electronic devices during the taking of a quiz, test, practical or examination.
- Obtaining a copy of the exam, exam key, and/or information about the quiz, test, practical or examination prior to the academic assessment and/or giving information about such academic assessments to another student prior to the academic assessment
- Removing a test paper from the classroom without permission from the instructor.
- Changing any answers on a corrected quiz, test, or examination and returning for credit.
- Leaving the room during the quiz, test, or examination to go to the rest room or other area of the building to seek answers to a quiz, test, or examination questions.
- Sharing materials from previous years such as quizzes, exams, case studies and homework with students presently in a course or in the future.

NOTE: Any student who repeats a course/or courses to improve a grade/s must read and sign an "Acknowledgement Form for Student Repeating a DMRT Course" form. By signing the form the student agrees to not share any materials with other students pertaining to the course/courses from previous years. The Program Director may require the student to return any course materials from previous years.

B. Classroom Assignments

- Copying or allowing copying of homework, class work, or class projects or other materials unless specifically allowed by the instructor.
- Collaborating on homework, class work, class projects, or other assignments unless specifically allowed by the instructor. Unauthorized collaboration includes (a) jointly calculating homework problems, (b) sharing resources for an assignment, working in a group on a lab or computer assignment (c) presenting another student's homework or assignment as your own, (d) failing to acknowledge the contribution of another student or student(s) in an authorized group assignment.
- Obtaining pre-written papers or assignments from other students or commercial services and presenting the work as your own.

- Recycling written papers or class assignments from one course to another.

C. Laboratory Activities

- Falsifying laboratory results.
- Allowing another student to perform your laboratory test, or performing a test for someone else.

Course Assignments

All course assignments will be given a rating to designate whether the work will be carried out independently by each individual student or collaboratively with students working together. The DMRT rating system is defined as follows:

I = Independent Work Required
C = Collaborative Work Permitted

Plagiarism

- Plagiarism is defined as a form of “literary theft” and involves presenting the words, ideas, opinions, or graphic designs as your own work without proper attribution. Attribution means the ascribing (or acknowledgement of) a work to an author, date, publisher, and place of publication by the use of a designated system of referencing.
- Submitting another person’s actual written words (from published or unpublished sources) without the use of quotation marks and properly acknowledging and referencing the source.
- Portraying another person’s ideas, theories or written work as one’s own without properly acknowledging and referencing the source.
- Paraphrasing the words, ideas or theories of another individual by merely reordering the sequence of sentences or finding synonyms for some of the words without properly acknowledging and referencing the source.
- Using the graphic designs (tables, graphs, figures, color plates, slides, photographs) without properly acknowledging and referencing the source.
- Using information that is not considered common knowledge in the field without acknowledging and properly referencing the source.
- Submitting papers written by another student or obtained from a commercial source.

PROFESSIONALISM AND CIVILITY

One basic ethical principle is “Respect for Persons.” Students in the Department of Medical and Research Technology are responsible for adhering to the following code of civility. Each member of this community is entitled to respect and should treat all others, regardless of status, respectfully and courteously. Professional relationships should be characterized by civility.

- **Respect**
Students will treat faculty, staff and fellow students in a courteous and professional manner. Students will practice civility in all communications whether in person or in writing. Students will not use profanity, insults, or make disparaging remarks.
- **Cooperation**
Students will work together with faculty, staff and fellow students to create a positive atmosphere conducive to achieving a learning environment that promotes personal integrity and academic achievement.
- **Nondiscrimination**
Students will respect the differences in people, their ideas and opinions and will reject all forms of bigotry by practicing tolerance of others.
- **Courtesy**
Students will adhere to the Department’s Code of Professionalism and will ensure that their behavior does not disrupt learning activities either in the classroom or the laboratory.
- **Electronic Devices**
As a courtesy to the instructor(s) and other students, all cell phones and pagers **will be turned off during lecture and laboratory sessions (no texting is permitted)**. The use of any electronic devices, including, but not limited to: cell phones, Smart phones, pagers, programmable calculators, personal digital assistants (PDAs), and MP3 players, reading devices such as Kindle, is not permitted during lecture, laboratory exercises, examinations, quizzes or laboratory practicals. **If indicated by the instructor:**
 - Personal laptops are permitted for lecture related activities in the **lecture class room**,
 - Non-programmable calculators may be used for examinations and other assessments.

Electronic Devices on Clinical Rotations/Externships

When on clinical or research practicums (rotations and externships), students are required to observe the policies of the affiliate regarding the use of electronic devices. The DMRT does not permit students to use MP3 players, Cell phones, Kindle devices, etc. in any practicum setting and strongly discourages the use of cell phones while performing assigned duties at affiliate facilities.

PROFESSIONAL QUALITIES OBJECTIVES

Preparation for a career in clinical and biomedical laboratory science requires not only the development of cognitive (knowledge) and psychomotor (technical) skills, but also professional attitudes and behavior. All DMRT faculty expect the student to demonstrate professional attitudes and academic integrity as evidence of his/her readiness to enter the clinical practicum/externship, as well as the profession. Therefore, in this course the student will:

1. Adhere to the lecture and laboratory schedule by attending every class.
2. Adhere to the lecture and laboratory schedule by arriving on time and remaining until the conclusion of the class.
3. Return promptly from scheduled breaks and minimize behaviors that may be disruptive. Such behaviors include, but are not limited to, personal communications, leaving the room while instruction is in progress, as well as the unauthorized operation of electronic devices such as laptop computers and cell phones during lecture and laboratory sessions.
4. Complete assignments, homework, and laboratory exercises within established timelines and adhere to the Departmental writing standards for grammar and punctuation.
5. Exhibit a commitment to learning by seeking clarification from the instructor(s) when material is not understood, by actively participating in discussions and in-class assignments, as well as in team projects by equitably sharing responsibility for the assignment.
6. Demonstrate flexibility with changes to the schedule, syllabus or planned laboratory exercises.
7. Comply with all safety policies and requirements.
8. Adhere to required student dress code policies.
9. Communicate with the instructor and other students in a manner that is characterized by civility and professionalism.
10. Cooperate with other students in sharing equipment and supplies as well as cleaning up at the completion of the laboratory session.
11. Maintain a clean work/study area that includes, but is not limited to, laboratory bench and student resource room.

Please refer to Appendix C for the student Evaluation of Professional Qualities.

**DEPARTMENT OF MEDICAL & RESEARCH TECHNOLOGY
UNIVERSITY OF MARYLAND SCHOOL OF MEDICINE**

PROFESSIONAL QUALITIES EVALUATION

Student Name: _____
(please print)

1. ___ Arrives on time, returns from breaks as scheduled and remains until the conclusion of the class. ___ Days Late ___ Days Left Early
2. ___ Actively exhibits a commitment to learning by participating in class activities and being prepared on a consistent basis for assigned tasks in lecture and laboratory.
3. ___ Complies with all safety regulations and dress code policies in the laboratory.
4. ___ Completes tasks within specified period of time.
5. ___ Communicates with the instructor and peers in a civil, professional manner.
6. ___ Cooperates with other students in sharing equipment and supplies and cleaning up at the completion of the laboratory sessions.
7. ___ Actively participates in all lecture and laboratory activities.

I have read and understand the expectations and requirements for this course and the program.

Student Signature

Date

THE UNIVERSITY'S POLICY AGAINST SEXUAL HARASSMENT OF STUDENTS

The University prohibits sexual harassment of students by colleagues or faculty. **Sexual harassment is an infringement of an individual's right to work and study in an environment free from unwanted sexual attention and sexual pressure of any kind.** It can result in a significant human resource drain for the University and hinder the scholastic efforts of students.

DEFINITION OF SEXUAL HARASSMENT

The University has adopted the definition of sexual harassment used by the United States Equal Employment Opportunity Commission. Unwelcome sexual advances, unwelcome requests for sexual favors, and other behavior of a sexual nature constitute sexual harassment when:

- A. Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's participation in the University educational program; or
- B. Submission to, or rejection of, such conduct by an individual is used as the basis for academic or employment decisions affecting that individual; or
- C. Such conduct has the purpose or effect of unreasonably interfering with an individual's academic or work performance, or of creating an intimidating, hostile, or offensive educational or working environment.

EXAMPLES OF SEXUAL HARASSMENT

Sexual harassment can include any or all of the following behaviors, as well as others which are not listed:

- Harassment through public or private insult, sexually suggestive comments concerning a person's body or behavior, and sexual demands.
- Subtle or overt pressure to comply with demands of sexual activity.
- Remarks about another person's clothing, body, sexual activities, sexual preferences, or sexual orientation, as well as teasing, jokes, remarks, or gestures which are sexual in nature.
- Unnecessary touching, pinching, patting, or exposure of another person's body.
- Unwarranted staring at another person's body.
- Unwanted communications of a sexual nature in writing, by telephone, or by other means.
- Requests or demands for sexual favors accompanied by implied or overt threats about grades, clinical assignments, class academic assignments, recommendations, student employment, etc.
- Repetition of unwanted invitations for dates.
- Physical assault of a sexual nature, up to and including attempted or actual rape.

STUDENT'S REMEDIES

Sex-based discrimination and sexual harassment of student by students, faculty or staff will not be tolerated. Proven harassment will result in disciplinary action possibly including suspension, expulsion or dismissal.

Student questions about peer behavior that may constitute sex-based discrimination or sexual harassment and questions about disciplinary policies should be directed to Dr. Roger Ward, the Associate Vice President for Academic Affairs in the UM Office of Academic Affairs (“AVPSA”), (410) 706-2477 or to the identified dean of the school involved (See Article V1-1.00(c) for list and contact information).

Student questions about employee behavior that may constitute sex-based discrimination or sexual harassment and questions about disciplinary policies should be directed to the campus Manager of Diversity/EEO/Affirmative Action (“EEO Manager”) at (410) 706-7302.

Timely reporting of allegations of sexual harassment is crucial. It permits effective University intervention to protect students and educate and discipline the offenders. Institutional investigations of sexual harassment charges often require the complainant's identity to be known by the accused. However, complainants should be aware that the University will not tolerate or condone any form of retaliation against a student complainant whose sexual harassment claim is made in good faith.

The Counseling Center can be useful in helping students cope with the stress resulting from sexual harassment or participating in campus proceedings to investigate sexual harassment charges. Please call (401) 706-8404 for more information about campus counseling services.

For more information please visit <http://cf.umaryland.edu/hrpolicies/section6/t60120Bsa.html>

DISABILITY SUPPORT SERVICES

The University of Maryland is committed to providing excellent educational programs for all qualified students who enroll in one of our many academic disciplines. Students with documented disabilities may request modifications, accommodations, or auxiliary aids which will enable them to reasonably participate in and benefit from our educational programs, activities, services and facilities. Students with a documented disability can request reasonable accommodation for their disability by following the steps found at the following web address: http://www.umaryland.edu/student/forms/disability_disclosure_accommodations_form.html . Questions regarding the process for requesting reasonable accommodations should be directed to Flavius Lilly, Assistant Vice President of Academic & Student Affairs, by phone at 410-706-7767 or by e-mail at flilly@umaryland.edu

SUBSTANCE ABUSE

1. Students may be subjected to random drug testing at affiliate sites where drug-testing programs are in place.
2. Students must adhere to the University of Maryland policy. (Refer to the Student Answer Book distributed in the orientation packet.)

DEPARTMENTAL PHOTOGRAPHS

Throughout the academic year, photographs are taken of students in lecture, lab, and during student activities. Students sign a waiver form at orientation stipulating whether or not they consent for their photographs to be used by the department. These photos may be used for recruitment and career awareness activities as well as the promotion of departmental programs and activities.

STUDENT/FACULTY ADVISORS

Students are assigned faculty advisors at junior/senior orientation. All students are requested to meet with their advisor to discuss their progress in the program at least once per semester preferable within the first month of classes. Students are encouraged to contact their advisor to discuss any academic or non-academic issues that they may be experiencing (within reason). If the advisor is unable to assist the student, a referral within the department or on campus will be made.

ADDRESS CHANGES/STUDENT INFORMATION

Students must notify the Registrar and the Program Director regarding changes to address, phone number and/or name.

SOM E-mail ACCOUNTS

SOM e-mail accounts will be assigned to all students entering the program. Since many DMRT courses are supported by BlackBoard, students are required to utilize and monitor (on a regular basis) their e-mail account provided by SOM. In addition, SOM e-mail accounts will be used to communicate with senior students on rotation/externship.

The School of Medicine HELP desk requires users with SOM network accounts to have their password changed every 120 days, otherwise the accounts will be deactivated and no longer work. If your account does not work please call the SOM HELP Desk @ 6-3998 and request to have your account reactivated.

RECOMMENDATIONS FOR SUCCESS IN DMRT COURSES

1. Attend every lecture AND actively take notes – not just what is written on the hand-out, but anything you need to understand the material.
2. Review the notes within 24 hours after the lecture and again the weekend before the related examination.
3. Use the objectives like study questions and write out the answers to them. Work from memory as much as possible then go back and fill in from your notes.
4. Complete all in-class assignments and homework. Study these materials the weekend before the related examination.
5. Form a study group to quiz one another before exams. Also, practice explaining what you understand to other group members, family members or your pet – you will know it when you explain it correctly to someone.
6. Periodically study previous notes and write down questions about what you do not understand to ask at the next class.
7. Start your intensive review for examinations several days before the exam.
8. Schedule an appointment with/or e-mail the course coordinator to get questions answered.
9. Read assignments in the book and use the textbook as a reference.
10. Plan your study time each week for this class. Allow enough time to review the lecture notes, read the text and prepared study materials (such as answering objectives, preparing flash cards).

DEPARTMENT OF MEDICAL & RESEARCH TECHNOLOGY

DIRECTORY 2011-2012

<u>(NAME) @som.umaryland.edu</u>	410-706-	<u>ROOM</u>
Denise Booth (dbooth) Instructor	x2626	415-A
Harry Wandell Assistant Professor	X7535	435-C
Jack Luo (jluo) Associate Professor	x3773 x2625	405-A
Deirdre Parsons (dparsons) Assistant Professor & Program Director	x1829	440-E
Eileen Patton (epatton) Assistant Professor	x3772	440-A
Cynthia Stambach (cstambach) Volunteer Adjunct Instructor	x7728	340-B
Sanford Stass (jwertz@umm.edu) Professor and Chair	x7729	340-D
Ivana Vucenik (ivucenik) Associate Professor	x1832	405-C

A P P E N D I X A

C U R R I C U L U M

JUNIOR YEAR CORE CURRICULUM

CREDIT HOURS

MEDT 308	Scientific & Technical Writing	1
MEDT 321	Introduction to Lab Techniques	1
MEDT 355	Biochemistry	3
MEDT 451	Cellular & Molecular Biology	4
MEDT 491	Clinical Immunology	<u>4</u>

TOTAL 13

MINI-MESTER

MEDT 309	Professional Development	1
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SPRING SEMESTER

MEDT 409	Laboratory Mgmt/QA/Regulatory Issues	3
MEDT 471	Virology/Parasitology/Mycology	3
MEDT 356	Instrumentation/Analytical Methods	4
MEDT 331	Hematology I	3
MEDT 490	Pathogenic Microbiology	<u>4</u>

TOTAL 17

SUMMER SESSION

MEDT 408	Research Project (optional elective)	1-3
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SENIOR YEAR - SPECIFIC TRACK DECLARED

FALL SEMESTER - MEDICAL TECHNOLOGY

MEDT 421	Urinalysis/Body Fluids	2
MEDT 472	Clinical Microbiology	3
MEDT 464	Immunohematology	4
MEDT 432	Hematology II	3
MEDT 452	Clinical Chemistry	<u>4</u>

TOTAL 16

FALL SEMESTER - BIOTECHNOLOGY

CREDIT HOURS

MEDT 454	Applied Cellular & Molecular Biology	4
MEDT 422	Computer Applications	3
MEDT 423	Applications in Biotechnology/Research Design	4
MEDT 433	Techniques in Biotechnology/Protein Applications	4
MEDT 410	Product Development & Commercial Applications	<u>1</u>
	TOTAL	16

SPRING SEMESTER - MEDICAL TECHNOLOGY

MEDT 402	Comprehensive Review Course	1
MEDT 453	Clinical Practice Chemistry	3
MEDT 463	Clinical Practice Hematology	3
MEDT 473	Clinical Practice Microbiology	3
MEDT 467	Clinical Practice Immunohematology	<u>3</u>
	TOTAL	13

SPRING SEMESTER - BIOTECHNOLOGY

MEDT 475	Externship I	6
MEDT 476	Externship II	6
MEDT 402	Comprehensive Review Course	<u>1</u>
	TOTAL	13

A P P E N D I X B

***C O U R S E
D E S C R I P T I O N S***

CHEMISTRY

MEDT 355 BIOCHEMISTRY (3 SEMESTER HOURS)

This course is designed to introduce students to the principles of biochemistry – the chemistry of living matter. The first section of the course will emphasize building blocks of biomolecules, biological buffers, protein structure and enzymes. The next section will deal with the molecular biology of the informational macromolecules, DNA and RNA, and with protein synthesis. The final section discusses the metabolic pathways of the macromolecules – carbohydrates, lipids, amino acids and nucleic acids – as well as the action and mechanisms of hormones.

MEDT 356 INSTRUMENTATION / ANALYTICAL METHODS (4 SEMESTER HOURS)

This course is designed to introduce students to the basic laboratory instrumentation and analytical methods common to both clinical and research laboratories. The course will explore miscellaneous instruments and techniques through their application and use. Instructional formats include lecture, discussion, question and answer sessions, reading assignments and laboratory exercises. The laboratory component of the course will serve to complement and enhance lecture topics by both demonstrations and laboratory performance using the instrumentation and analytical techniques discussed.

The laboratory component of the course will serve to complement and enhance lecture topics.

Prerequisite: MEDT 355

MEDT 452 CLINICAL CHEMISTRY (4 SEMESTER HOURS)

This course is designed to present in-depth information relating to the pathophysiology of commonly measured analytes in the clinical chemistry laboratory. Discussion will include the following topics: proteins, clinical enzymology, carbohydrates/diabetes, lipids/lipoproteins, renal function, tumor markers, liver function, acid-base balance, blood gases, electrolytes, bone metabolism, cardiac markers, thyroid and adrenal endocrinology, and therapeutic drug monitoring/toxicology. The instructional formats used include lecture, discussion, question and answer sessions, case study presentations, reading assignments, and laboratory exercises which include sample/data analysis, evaluation of quality control parameters and clinical correlation exercises.

MICROBIOLOGY

MEDT 490 PATHOGENIC MICROBIOLOGY (4 SEMESTER HOURS)

Students are introduced to bacteria, which may cause disease or may reside as normal flora in humans. In the lecture portion of the course, each genus of pathogenic bacteria is studied according to its classification, structure, virulence, epidemiology, clinical syndrome(s) and treatment. Major emphasis is placed on learning the basic identification characteristics of each of the genera studied and the differentiation of the various species within each genus. Gram positive/negative, cocci/bacilli, aerobic/anaerobic organisms are studied as well as mycobacteria, mycoplasma/chlamydia, actinomycetes, rickettsia, and spirochetes. Conventional and/or automated and molecular techniques are discussed. The laboratory portion of the course supports the lectures by providing practical experience in the identification of pathogenic bacteria by conventional techniques. The student obtains expertise by working with known organisms as well as unknown samples.

Prerequisite: General Microbiology

MEDT 471 VIROLOGY / PARASITOLOGY/MYCOLOGY (3 SEMESTER HOURS)

This course involves three different modules that together constitute a comprehensive introduction to parasitic, viral and fungal infections of humans with emphasis on the major pathogens encountered in the clinical laboratory. In the lecture portion of this course, students are introduced to each new taxonomic group and the following areas are discussed: a) morphology, b) life cycle, c) clinical symptoms and disease, d) diagnosis, e) treatment, and f) epidemiology.

In the Parasitology Module laboratory sessions, the students will view numerous reference vials and stained slides of parasite adult worms, eggs, trophozoites, cysts, and blood smears. Additionally each student will be responsible for the independent and accurate identification and reporting of two unknowns in Parasitology (one from a concentration procedure and one from a trichrome stained slide).

In the Virology module, students will work with commercial assay systems to detect viruses.

In the Mycology Module, students will view a variety of yeast strains and prepared LPCB slides of pathogenic molds, and each will be responsible for the accurate and independent identification and reporting of one unknown yeast in Mycology for identification to the genus and species level.

MEDT 472 CLINICAL MICROBIOLOGY (3 SEMESTER HOURS)

The course presents a review of pathogenic microbiology with the approach used in the clinical microbiology laboratory. Students are introduced to medical microbiology and the clinical basis of infectious diseases. Each system of the body is discussed in terms of anatomy and physiology, normal flora, occurrence of infectious diseases, expected pathogens, their characteristics, and factors which predispose them to pathogenesis in that particular body site. In the laboratory, students become acquainted with the proper collection, handling, identification and appropriate treatments of pathogens from the various body sites. Students use the information and laboratory skills acquired in Pathogenic Microbiology. During the course each student works independently building self-reliance and analytical skills to identify pathogens from clinical specimens and in the reporting of their findings.

Prerequisite: MEDT 490 – Pathogenic Microbiology

MEDT 491 CLINICAL IMMUNOLOGY (4 SEMESTER HOURS)

This course presents a systematic review of the structure and function of the human immune system and its relationship to disease. Students will acquire the background and practical skills necessary to work in a clinical immunology laboratory. Some lecture topics include innate and acquired immunity, antigens, antibody structure/function, B & T lymphocytes, immunodeficiencies, MHC and antigen processing/presentation, soluble mediators of immunity, immune response to infection, hypersensitivity, autoimmunity, and transplantation/tumor immunology. Some laboratory topics include laboratory safety, phagocytosis, complement, various precipitation/agglutination assays, various labeled immunoassays (including ELISA, FTA-ABS, IFA) serology of various disease states, antinuclear antibody testing (colorzyme vs. fluorescent) and the basics of flow cytometry.

HEMATOLOGY

MEDT 331 HEMATOLOGY I (3 SEMESTER HOURS)

This course is an introduction to the fundamental concepts and principles of the field of clinical hematology. Components include: units on hematopoiesis, normal values, introduction to stem cells, and in-depth study of various anemias, hemoglobinopathies, qualitative leukocyte disorders and related laboratory tests. The pathogenesis, clinical and laboratory manifestations of hematologic disorders are described. Students learn to distinguish normal and abnormal cellular characteristics of peripheral blood smears by examining and applying systems of qualitative differentiating criteria. Association of abnormal morphologic findings with underlying disorders are emphasized. Other laboratory topics include: general laboratory safety precautions, routine hematological tests, an introduction to automated hematology cell counters and quality control measures for the hematology laboratory. Instructional methods include lectures with educational objectives and comprehensive outlines, small group discussions, case histories, and study guide review questions. Grades are determined by lecture examinations, laboratory competency exercises, quizzes and homework.

MEDT 432 HEMATOLOGY II (3 SEMESTER HOURS)

This course is designed to emphasize advanced theoretical concepts in hematology and hemostasis and their practical applications. Students are exposed to the pathogenesis, laboratory diagnosis, clinical correlation and peripheral blood cell identification of the acute myeloid and lymphocytic leukemias. Other topics include: myeloproliferative and lymphoproliferative disorders, the myelodysplastic disorders, and plasma cell disorders. Cytochemical staining patterns in acute leukemias are stressed and their utility in the diagnostic process is developed through case study exercises. Students learn to interpret abnormal automated CBC results and perform follow-up procedures. Anemias are reviewed throughout the course of the semester. Topics in coagulation include an overview of hemostasis, platelet disorders, hereditary factor disorders, von Willebrand's disease, fibrinolysis, DIC, physiologic and pathologic inhibitors, thrombosis and anticoagulant therapy. Each hemostasis concept is supported by laboratory exercises which emphasize the practical aspects of coagulation test systems, and reagent, quality control and diagnostic usefulness. Instructional methods include lectures and educational objectives, case studies, problem-based exercises, and homework.

Prerequisite: MEDT 331 – Hematology I

MEDT 464 IMMUNOHEMATOLOGY (4 SEMESTER HOURS)

This course is designed to cover practical and theoretical concepts in the study of blood group serology and transfusion medicine. Students will learn and apply basic knowledge of immunological principles to the ABO, Rh, and other significant blood group systems. Transfusion medicine topics discussed include donor screening, component preparation, apheresis, and blood component therapy. The course will also cover topics in the investigation of hemolytic disease of the newborn (HDN), drug related red blood cell sensitization, transfusion reactions and autoimmune hemolytic anemias. Emphasis will be placed on quality control and regulations in transfusion medicine. In lab, students will demonstrate proficiency in ABO/Rh grouping, direct antiglobulin testing, antibody screening, and compatibility testing. In addition, students will be introduced to various blood bank special techniques and apply basic knowledge of concepts and techniques to the investigation of unexpected serological reactions in Blood Banking.

Prerequisite: MEDT 491 Clinical Immunology or equivalent

LABORATORY SCIENCES

MEDT 321 INTRODUCTION TO LABORATORY TECHNIQUES
(1 SEMESTER HOUR)

This course serves as a basic introduction to the field of clinical and research laboratory sciences. Students will acquire the fundamental skills necessary to ensure competency in the clinical and research laboratory. Course topics include: laboratory safety, organization of the clinical laboratory, phlebotomy, collection and processing of laboratory specimens, quality assurance, systems of measurement, basic laboratory equipment, microscopy, laboratory mathematics and point-of-care testing. This course includes a mandatory phlebotomy rotation at the University of Maryland Medical Center.

MEDT 421 URINALYSIS / BODY FLUIDS (2 SEMESTER HOURS)

This course covers the anatomy and physiology of the genitourinary system, procedures and principles behind the complete urinalysis including physical, chemical, microscopic properties, and genitourinary disease status. Other body fluids including spinal fluid, synovial fluid, seminal fluid, transudates, exudates and fecal analysis are also covered. Specimen handling, analysis and disease correlation are discussed for all fluids.

PROFESSIONAL DEVELOPMENT

MEDT 309 PROFESSIONAL DEVELOPMENT (1 SEMESTER HOUR)

Utilizing a problem-based learning approach towards instruction, this course is designed to heighten students' awareness of professional and ethical issues impacting the practice of medical laboratory science and biotechnology science research. Modes of instruction include group exercises, web-based activities, oral presentations and written assignments. Professional societies are introduced along with career development strategies, cover letter and resume writing and interviewing skills. In addition, emphasis will be placed on fine-tuning presentation skills. Students will be required to give a group presentation using a graphics software program. At the end of the term, each student submits a portfolio, which is an accumulation of course assignments and their individually tailored career plan.

MEDT 308 SCIENTIFIC & TECHNICAL WRITING (1 SEMESTER HOUR)

Scientific and Technical Writing is designed to meet competencies defined by the industry and the National Accrediting Agency for Clinical Laboratory Science. This one-credit course will provide undergraduate students with the basic structure, format and content for writing scientific papers, technical reports, professional essays and personal correspondence. In addition, the course also focuses upon conducting literature searches and ethical conduct in scientific and technical writing.

MEDT 408 RESEARCH PROJECT (OPTIONAL ELECTIVE, THIS COURSE MAY BE TAKEN MORE THAN ONCE, 1-3 SEMESTER HOURS)

Under faculty mentorship, students identify a suitable research topic, conduct a comprehensive literature search, carry out a project, analyze the data generated and submit a publication quality written project.

MEDT 409 LABORATORY MANAGEMENT / QUALITY CONTROL /
REGULATORY ISSUES (3 SEMESTER HOURS)

This course is designed to enhance students' oral and written communication skills, promote critical thinking, foster team building and endorse professionalism. Utilizing a problem-based learning approach towards instruction, students will develop managerial skills in the following areas: leadership, human resources, problem solving, laboratory information systems, financial analysis, education methodology, training, and regulatory issues. In addition, students will conduct a mock inspection of a laboratory. Modes of instruction include case studies, group exercises, role-play, oral presentation and written assignments.

BIOTECHNOLOGY

MEDT 451 CELLULAR & MOLECULAR BIOLOGY (4 SEMESTER HOURS)

This course is an introductory course in which students acquire the basic skills, concepts and theoretical background needed for the biotechnology research laboratory. In the lecture portion of this course, basic concepts of molecular cell biology are discussed. The molecules, structures, organization and function of prokaryotic and eukaryotic cells are examined and compared. Experimental techniques used to analyze and manipulate DNA and RNA are explained. Molecular diagnoses of genetic and cancerous diseases will be discussed. In the laboratory portion of the course, the students learn basic skills in DNA technology. Initially students will practice sterile techniques, micropipetting, DNA extraction and establish a bacterial growth curve. Additional laboratory skills are learned through agarose gel analysis of DNA, PCR, cloning, plasmid transformation, selection and identification of recombinant clones, DNA isolation and purification, restriction endonuclease analysis and mapping, DNA probe labeling, Southern blot analysis, DNA hybridization and principle of DNA sequencing, different types of PCR and microarrays.

MEDT 454 APPLIED CELLULAR AND MOLECULAR BIOLOGY (4 SEMESTER HOURS)

This course builds upon the concepts of skills learned in Molecular Biology in MEDT 451. In the lecture portion of this course, the principles of molecular techniques and the application of these techniques in creating useful products and solving research and commercial problems are emphasized. In the laboratory portion, a series of experimental molecular biology techniques are linked together in a continuous project to give the student a sense of how a complete project might be carried out. During the course-long project, the student will master the following techniques: Nucleic acid amplification (PCR), cloning, nucleic acid isolation, restriction digestion, reagent preparation, experimental planning, vector selection, antibiotic selection and protein expression. In addition, students maintain a scientific notebook during this laboratory project; teaching them proper recording and documentation of experiments.

Prerequisite: MEDT 451 – Cellular and Molecular Biology

MEDT 422 COMPUTER APPLICATIONS (3 SEMESTER HOURS)

This course is designed to introduce biotechnology students to a variety of software packages and computer applications. Students are prepared for work settings where utilization of their professional and scientific training will occur. Components of the course will include use of software for the design of oligonucleotide primers, analysis of nucleic acid primary structure, DNA sequencing chromatograms, use of a reference database, and bioinformatics. Students will also become proficient in Microsoft Excel and be able to prepare spreadsheets, charts, and graphs.

Prerequisite: MEDT 451 – Cellular and Molecular Biology

MEDT 433 TECHNIQUES IN BIOTECHNOLOGY / PROTEIN APPLICATIONS
(4 SEMESTER HOURS)

This course is designed to provide the students with the theoretical knowledge and laboratory techniques to purify and characterize proteins, in order to understand their structure and function. Methodologies that will be discussed and covered in laboratory exercises include peptide synthesis, ultrafiltration, fractional precipitation, quantitation, chromatography, electrophoresis, mass spectrometry, crystallography and nuclear magnetic resonance (nmr).

Prerequisite: MEDT 356 – Instrumentation & Analytical Methods

MEDT 423 APPLICATIONS IN BIOTECHNOLOGY / RESEARCH DESIGN
(4 SEMESTER HOURS)

This course explores the theory of research design and requires that the student demonstrate his/her understanding through integration of design theory into actual laboratory research. The didactic portion of the course is presented during a weekly one-hour class where theory is presented and discussed. Under the direction of an assigned academic UM researcher, the student performs hands-on, non-paid, independent and original research as a means of applying the research design theory. Weekly homework assignments, on such topics as hypothesis formulation, design of a research study and critique of the scientific paper, are reviewed in class and will serve to meld the theory with its laboratory application. At the end of the term, students will present their research findings as an abstract, a poster, an oral presentation and a paper.

Prerequisite: MEDT 451 – Cellular and Molecular Biology

MEDT 410 PRODUCT DEVELOPMENT / COMMERCIAL APPLICATIONS
(1 SEMESTER HOUR)

This course is designed to introduce and familiarize the student with the process of product development within the biotechnology industry. The process of taking a product from inception through FDA approval will be discussed. Lectures will concentrate on defining a product for commercialization through research and development, small-scale and large scale manufacturing processes, optimization, validation and verification processes. Clinical trials will be discussed as well as data analysis and clinical evaluations. The course will also focus on the commercial applications of biotechnology-derived products. Specific applications include biopharmaceutical products, in-vitro diagnostic products, medical devices and agricultural products. Industry professionals will be utilized for lectures in their areas of expertise.

EXTERNSHIPS/CLINICAL ROTATIONS

MEDT 453 CLINICAL PRACTICE CHEMISTRY (3 SEMESTER HOURS)

This course provides exposure to practical experience in Clinical Chemistry acquired through a 19-day rotation at an affiliated hospital or physician's office laboratory. Students are introduced to daily operations, workflow, quality control and the laboratory information system as they perform automated diagnostic chemistry procedures. Emphasis is placed on the operation and troubleshooting of chemistry analyzers and equipment as well as enhancement of skills used in manual techniques. Focus is also placed on the assessment of specimen integrity with proper follow-up.

Prerequisite: MEDT 452

MEDT 463 CLINICAL PRACTICE HEMATOLOGY (3 SEMESTER HOURS)

This course provides exposure to practical experience in Hematology and Coagulation acquired through a 19-day rotation at an affiliated hospital or physician's office laboratory. Students are introduced to daily operations, workflow and the laboratory information system as they perform manual and automated hematology and coagulation procedures. Procedures include manual and automated cell counts, evaluation of abnormal CBC results and formulation of an appropriate course of action, examination of normal and abnormal peripheral smears, recognition of abnormal red cell and white cell morphology, and identification of the most common anemias and leukemias.

Prerequisites: MEDT 331 & 432

MEDT 467 CLINICAL PRACTICE IMMUNOHEMATOLOGY (3 SEMESTER HOURS)

This course provides exposure to practical experience in Blood Banking and Transfusion Medicine acquired through a 19-day rotation at an affiliated hospital laboratory. Students are introduced to daily operations, workflow and the laboratory information system as they perform routine and specialty pre-transfusion testing on patient and simulated samples. Techniques performed include ABO/Rh testing, antibody detection and direct antiglobulin testing as well as antibody identification, direct antiglobulin battery and other reference techniques and methods.

Prerequisite: MEDT 464

MEDT 473 CLINICAL PRACTICE MICROBIOLOGY (3 SEMESTER HOURS)

This course provides exposure to practical experience in Microbiology acquired through a 19-day rotation at an affiliated hospital or reference laboratory. Students are introduced to daily operations, workflow and the laboratory information system as they perform diagnostic techniques for microorganism identification. Tasks and techniques include specimen processing and culturing, identification of pathogenic microorganisms, and susceptibility testing for selecting the most appropriate antibiotic. Other specialized methods may include parasitic, fungal and viral identification.

Prerequisites: MEDT 472 & 471

MEDT 475/476 BIOTECHNOLOGY EXTERNSHIP (6 SEMESTER HOURS EACH)

This course provides exposure to practical experience for the biotechnology track students acquired through a 17-week externship at an industry-based biotechnology company. Through professional training, the student will utilize the expertise gained through previous didactic coursework, applying various technologies and good laboratory practices. This experience provides the student with exposure to the daily operations of the industry as well as the opportunity to learn while they work on research projects. Working with a multidisciplinary team of scientists, students will have the opportunity to gain hands-on research, practical laboratory and business experience, and develop entry-level skills, which will enable them to join the biotechnology field. The biotechnology site will serve as a preceptor to train, guide, and evaluate the student.

Spring Semester 6 credits each

Prerequisites: MEDT 454, 433 & 423

MEDT 402 COMPREHENSIVE REVIEW COURSE
(1 SEMESTER HOUR)

This course will provide a comprehensive review of the major discipline areas within the clinical laboratory or biotechnology science research. Students are required to attend all scheduled review sessions which will facilitate preparation for the exam portion of the course. For students in the medical technology track, four post rotation exams will be administered. For students in the biotechnology science research track, two exams will be given during the externship experience. All students will take a final comprehensive exam at the end of the semester. Final grades will be assigned on a pass/fail basis. As with all DMRT courses, successful completion of MEDT 402 is a requirement for graduation.

A P P E N D I X C

***S U P P L E M E N T A L
F O R M S***

**OFFICE OF RECORDS AND REGISTRATION
APPLICATION FOR EXAMINATION TO ESTABLISH
CREDIT - UNDERGRADUATE**

NAME: _____ **DATE** _____

SCHOOL/PROGRAM: _____

STUDENT ID NUMBER: _____

DEPT. ABBR./COURSE #: _____ **SEMESTER CREDITS:** _____

COURSE TITLE: _____

I request permission to take an examination to establish credit. In support of this request, I submit the following statement covering facts as to when, where, and under what conditions a knowledge of this subject was acquired.

APPLICANT'S SIGNATURE: _____

CHAIR OF DEPT. OFFERING COURSE: _____

The student satisfies all regulations governing credit by examination. Credit for this examination will bring the total examination credit for this student to _____ semester credits.

**CHAIR OF STUDENT'S
SCHOOL/PROGRAM:** _____

INSTRUCTIONS:

This application must be filled out in quadruplicate. The student's dean will keep one (1) copy; forward one (1) copy to the Department Chair; and give two (2) copies to the student. If the application is approved, the applicant will make arrangements with the Department concerned to take the examination. The student will then present one (1) copy of the approved application to the Student Accounts Office, 110 S. Paca Street, where a bill will be issued. The student will then take the approved application to the Registrar's Office, 110 S. Paca Street, 2nd floor. Before the Examination is given, a receipt for payment of the fee should be presented to the examiner by the student. A report on the result of the examination will be submitted by the examiner to the Registrar's Office on a Supplemental Grade Report Form.

**DEPARTMENT OF MEDICAL AND RESEARCH TECHNOLOGY
APPLICATION FOR QUALIFYING EXAM TO WAIVE COURSE**

Name: _____ Date: _____

Criteria for Qualifying Examination to Waive DMRT Course

1. Degree or appropriate coursework in MLT, Biotech, Biology and Chemistry.*
2. Upon entering the program, a GPA of 2.5 or higher at the beginning of the Junior Year.
3. Attained a grade of “B” or higher in course or course equivalent at transfer institution within the past 7 years.
4. Attain a grade of 80% or higher on the qualifying examination to be waived from the related course.
5. Qualifying examinations are offered for the following **junior level** courses:

MEDT 491 Clinical Immunology MEDT 490 Pathogenic Microbiology
MEDT 331 Hematology I
6. For **senior level** courses, a qualifying examination is only offered for MEDT 421, Urinalysis & Body Fluids.
7. Application for a Qualifying Examination must be submitted no less than 3 weeks prior to the semester in which the course is offered and the examination must be taken by the first day of the related class.

I request permission to take a qualifying examination for the following course(s):

Applicant Signature: _____

Exam Score(s): _____

_____ **Approved** _____ **Not Approved**

Program Director _____ Date _____

Course Coordinator _____ Date _____

***Students from a college with a current articulation agreement to waive designated courses are exempt.**

Department of Medical and Research Technology

Accident and Injury Report Form

1. Name of injured person
2. Date of injury
3. Name of person first contacted about the injury (supervisor/instructor)
4. Description of injury
5. How did accident occur? (describe fully)
6. What was person doing when injured (be specific)
7. Name of object which injured individual
8. Was safety equipment provided?
9. Was safety equipment in use at time of injury?
10. Was accident caused by injured's failure to use or observe safety regulations?
11. Was injured person treated at the scene of accident or sent to doctor? (student health)
12. If treated at scene of accident, describe treatment
13. Did injured person return to school or work, if so time and date
14. Follow up
15. Signature of person filing report

Release and Waiver Form For Professional Reference

Faculty Name _____ Date Requested _____

Student Name _____ Class of _____

Student ID# _____

Student Track _____

Applying to what type of program _____

Name (to whom) and Address to which letter should be sent:

Deadline for mailing: _____

NOTE: Requests for recommendations must be made at least 2 weeks prior to the deadline for mailing.

To the Student:

Please provide the information requested above. The student must initial one of the following statements and sign this form before submitting it to the evaluator. In accordance with the Family Rights and Privacy Act of 1974, I understand that federal legislation provides me with a right of access to confidential letters of evaluation relating to application for admission to another school, for a job, or for an award, and that no school or person can require me to waive this right.

_____ I hereby voluntarily waive and relinquish any right of access to this confidential letter of evaluation.	_____ I retain my right of access to this letter of evaluation
--	---

I give permission for the faculty member named above to review my student records for the purpose of providing a reference (written or oral) to the person/program above. It is my understanding that the evaluation will be based upon the faculty member's knowledge of my academic performance and character traits. He/She has my permission to include my grades, grade point average, class rank, and any relevant information.

Student's Name (Print)

Student's Signature

Date

R:/ Faculty Resources/recommendationrequestform

Student Agreement

Please acknowledge your understanding and agreement by initialing each item below:

_____ I recognize that I am responsible for assuming the role of both health care provider and patient in laboratory sessions. To meet this responsibility, I agree to obtain, as well as provide, clinical specimens of body fluids including blood.

_____ I have been informed that biological specimens and blood products hold the potential for transmitting infectious diseases such as hepatitis and acquired immune deficiency syndrome. Accordingly, I agree to observe standard precautions and OSHA Blood Borne Pathogen regulations when handling and processing all samples. I am satisfied that I have received sufficient training of these practices. Furthermore, I have had the opportunity to request additional training, but have not made such a request.

_____ I understand that diagnostic products and reagents derived from human sources are tested for viral markers such as Hepatitis B surface antigen and HIV antibodies. As no test can assure that every product is free of infectious disease, I agree to handle all diagnostic products as potentially infectious.

STUDENT SIGNATURE

DATE

Honor Pledge

As a student of the University, I pledge that I have followed the standards of academic honesty and ethical conduct and have neither given nor received any unauthorized assistance on this academic work, thus affirming my own personal commitment to honor and integrity.

Student Signature

Date

PROFESSIONAL QUALITIES EVALUATION

Student Name (please print)

8. ___ Arrives on time, returns from breaks as scheduled and remains until the conclusion of the class. ___ Days Late
9. ___ Exhibits a commitment to learning by participating in class activities and being prepared on a consistent basis for assigned tasks.
10. ___ Complies with all safety regulations and dress code policies in the laboratory.
11. ___ Completes tasks within specified period of time.
12. ___ Communicates with both instructor and peers in a civil, professional manner.
13. ___ Cooperates with other students in sharing equipment and supplies and cleaning up at the completion of the laboratory sessions.

I have read and understand the expectations and requirements for this course.

Student Signature

Date

Declaration of Track for Senior Year

_____ I would like to continue my studies in the Medical Technology Track for my senior year.

_____ I would like to continue my studies in the Biotechnology Science Research Track for my senior year.

Student Name - Print

Student Signature

Date

**DEPARTMENT OF MEDICAL AND RESEARCH TECHNOLOGY
APPLICATION FOR ACCELERATED ROTATIONS**

Name: _____ Date: _____

Criteria for Qualifying for Accelerated Rotations

1. Criteria (certification) MLT or CLT.
2. Earned an average of "B" or higher in the related disciplines (at DMRT and the articulating program) where the student is seeking an Advanced Rotation.
3. Entering GPA of 3.00 or better at the beginning of the Junior Year.
4. CLS/MT rotations must occur within three (3) years of the CLT/ MLT rotations, or the student must show recent (within three years) related work experience in the discipline where the student is seeking an Advanced Rotation.

I request permission to take an Advanced Rotation in the following designated area:

_____ Chemistry	_____ Hematology
_____ Microbiology	_____ Blood Bank

Applicant Signature: _____

Certification Type and #: _____

_____ **Approved** _____ **Not Approved**

Program Director _____ Date _____

Course Coordinator _____ Date _____

Policy Statement

Clinical Rotation and Externship Site Assignments

It is the goal of the DMRT to provide a diversity of exposure and experience in the clinical rotations and biomedical externships scheduled for the spring semester of the senior year. We are fortunate to have the support and participation from clinical and industry sites for clinical rotations/externships throughout the Mid-Atlantic region. Externship sites for the biotechnology science research track are located predominantly in the Rockville/Gaithersburg research corridor, while clinical rotation sites for the medical technology track are located throughout the Mid-Atlantic region.

A sincere effort is made to match student needs and desires to available site locations in the assignment of rotation/externship sites. Please note, assignments may require travel to a site that was not originally requested by the student. Lodging and travel arrangements to and from clinical rotation and externship sites are the responsibility of the student.

I understand this policy and accept the conditions stated pertaining to clinical rotation and biomedical externship assignments.

Name (printed)

Signature and Date

EXTERNSHIP SITES

BD Diagnostics, Sparks, MD

Department of Pathology, University of Maryland School of Medicine

MedImmune, Inc., Gaithersburg, MD

Sequoia Pharmaceuticals, Inc., Gaithersburg, MD

Virion Systems, Inc., Rockville, MD

CLINICAL ROTATION SITES

Anne Arundel Medical Center - Annapolis, Maryland
Calvert Memorial Hospital, Calvert County, Maryland
Dr. Richard DeSantis (POL), Bel Air, Maryland
Franklin Square Hospital Center, Baltimore, Maryland
Georgetown University Hospital, Washington, D.C.
Good Samaritan Hospital, Baltimore, Maryland
Greater Baltimore Medical Center, Baltimore, Maryland
Harbor Hospital, Baltimore, Maryland
Harford Memorial Hospital, Havre de Grace, Maryland
Holy Cross Hospital, Silver Spring, Maryland
Johns Hopkins Bayview Medical Center, Baltimore, Maryland
Johns Hopkins Hospital, Baltimore, Maryland
Kaiser Permanente Regional Laboratory, Rockville, MD
Mercy Medical Center, Baltimore, Maryland
Montgomery General Hospital, Olney, Maryland
National Institutes of Health, Bethesda, Maryland
Quest Diagnostics, Inc., Baltimore, Maryland
St. Agnes Hospital, Baltimore, Maryland
Suburban Hospital Healthcare System Bethesda, Maryland
Union Memorial Hospital, Baltimore, Maryland
University of Maryland Medical Center, Baltimore, Maryland
University of Maryland Pathology Associates, Baltimore, Maryland
Upper Chesapeake Medical Center, Bel Air, Maryland
Veterans Administration (VA) Medical Center, Baltimore, Maryland

**DEPARTMENT OF MEDICAL AND RESEARCH TECHNOLOGY
UNIVERSITY OF MARYLAND SCHOOL OF MEDICINE
STUDENT POLICY AND PROCEDURES FOR
ROTATIONS AND EXTERNSHIPS**

Please acknowledge your understanding and agreement by initialing each item listed below:

_____ The Clinical Rotation/Externship Manual of the Department of Medical and Research Technology was distributed. The key policies and procedures were reviewed at Clinical Orientation in December. I agree to abide by the policies and procedures established in this document.

_____ I have been advised that each clinical affiliate may have policies and procedures specific to the institution. I agree to abide by the policies and procedures of each clinical site where I have been assigned a rotation/externship.

Student Name (please print)

Student Signature

Date

- This form will be kept as part of the student's permanent file in the Student Affairs Office in DMRT.

Student Affairs/clin rot mat/student clin rot policy agreement