# DEPARTMENT OF MEDICAL LABORATORY SCIENCE

# HISTOTECHNICIAN PROGRAM

2024-2025



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#### DESCRIPTION OF THE HISTOTECHNOLOGY PROFESSION

Histotechnology professionals are qualified by academic and applied science education to provide service and research in histotechnology and related areas in rapidly changing and dynamic healthcare delivery systems. They have diverse and multi-level functions in the areas of analysis and clinical decision-making, information management, regulatory compliance, education, and quality assurance/performance improvement wherever anatomic pathology testing is researched, marketed, developed or performed. Histotechnology professionals perform, develop, evaluate, correlate and assure accuracy and validity of laboratory testing and procedures; direct and supervise anatomic pathology laboratory resources and operations; and collaborate in the diagnosis and treatment of patients. They possess skills for financial, operations, marketing, and human resource management of the histopathology laboratory.

Histotechnology professionals practice independently and collaboratively, being responsible for their own actions, as defined by the profession. They have the requisite knowledge and skills to educate laboratory professionals, health care professionals, and others in laboratory practice, as well as the public.

The ability to relate to people, a capacity for calm and reasoned judgment, and a demonstration of commitment to the patient are essential qualities. Communication skills extend to consultative interactions with members of the healthcare team, external relations, customer service and patient education. Histotechnology professionals demonstrate ethical and moral attitudes and principles that are necessary for gaining and maintaining the confidence of patients, professional associates, and the community.

(NAACLS, 2023)

## DESCRIPTION OF ENTRY LEVEL COMPETENCIES OF THE HISTOTECHNICIAN

At career entry, the histotechnician will be able to perform routine histologic procedures such as:

- A. Receiving and accessioning tissue specimens;
- B. Preparing tissue specimens for microscopic examinations, including all routine procedures;
- C. Assisting with gross examination and frozen section procedures in histopathology;
- D. Identifying tissue structures and their staining characteristics;
- E. Performing preventive and corrective maintenance of equipment and instruments or referring to appropriate sources for repairs;
- F. Recognizing factors that affect procedures and results, and taking appropriate action within predetermined limits when corrections are indicated;
- G. Performing and monitoring quality control within predetermined limits;
- H. Applying principles of safety;
- I. Demonstrating professional conduct and interpersonal communication skills with patients, laboratory personnel, other health care professionals, and with the public;
- J. Recognizing the responsibilities of other laboratory and healthcare professionals and interacting with them with respect for their jobs and patient care;
- K. Recognizing and acting upon individual needs for continuing education as a function of growth and maintenance of professional competence; and,
- L. Exercising principles of management, safety, and supervision, as the primary analyst making specimen-oriented decisions on predetermined criteria, including a working knowledge of criteria values. Communications skills will extend to frequent interactions with members of the healthcare team, external relations, customer service, and patient education. The levels of analysis range from routine tissue processing to complex histopathology laboratory procedures in the various major areas of anatomic pathology. The histotechnician will have diverse functions in areas of pre-analytic, analytic, and post analytic processes. The histotechnician will have responsibilities for information processing, training, and quality control monitoring wherever histologic procedures are performed.

(NAACLS 2023)

# UNIVERSITY OF NORTH DAKOTA DEPARTMENT OF MEDICAL LABORATORY SCIENCE

The Histotechnician (HT) program at the University of North Dakota (UND) is a university-based certificate program. The HT program is part of the Department of MLS, which is located at the UND School of Medicine and Health Sciences (SMHS), 1301 N. Columbia Rd, Stop 9037 Grand Forks, ND 58202-9037. Program information can be found on the Histotechnology website

#### **ACCREDITATION**

The UND HT Program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) which is located at 5600 N. River Rd, Suite 720, Rosemont, IL 60018-5119.

#### **MISSION**

The mission of the Department of Medical Laboratory Science is to provide high-quality education that prepares students to positively impact healthcare through medical laboratory practice in the state and affiliated regions.

#### **GOALS**

- Develop and deliver a curriculum that: reflects current laboratory knowledge and best-practice; promotes critical thinking, scholarship, and life-long learning; and aligns with University of North Dakota (UND), UND School of Medicine & Health Sciences, and National Accrediting Agency for Clinical Laboratory Sciences standards
- 2. Provide a student-centered environment through individualized advising, responsive mentoring/instruction for all students including those with diverse backgrounds, and supportive faculty/staff
- 3. Help address healthcare needs in the state and affiliated regions by graduating students that: meet entry-level competencies; are employable in various settings; and are positioned for leadership in medical laboratory practice
- 4. Promote and advocate for medical laboratory professions

#### UND HISTOTECHNICIAN PROGRAM ESSENTIAL FUNCTIONS

Essential Functions are the physical, behavioral and cognitive attributes of an individual that are necessary to be able to be successful in an academic or clinical laboratory setting. The following Essential Functions have been defined by the UND HT Program:

#### 1. Communication

- read, comprehend, and respond to English communications (including person-to person, telephone, electronic, and written forms) in an effective, respectful, and time-sensitive manner
- b. follow oral and written directions

#### 2. Behavior and Professional Standards

- demonstrate ability to perform required skills and maintain professionalism (by continuing to meet Standards of Professional Conduct) under distracting, demanding, and/or stressful circumstances
- adapt to an environment that may change rapidly, without warning, and in unpredictable ways
- c. maintain consistent, positive work behaviors including initiative, preparedness, dependability, persistence, and follow-through
- d. project an image of professionalism through appearance, dress, hygiene, positive attitude, and body language
- demonstrate appropriate interpersonal behaviors while interacting with others during program-related occurrences, including but not limited to: courtesy and cooperation; receiving and responding to constructive feedback; respect and empathy; and nonthreatening conduct
- f. abstain from use of illegal, prescription, over-the-counter, experimental, recreational, or other drugs that have a significant effect upon an individual's judgment
- g. with minimal redirection, independently perform work and recognize appropriate next steps/actions

#### 3. Critical Thinking and Application

- a. demonstrate time management skills by completing assigned tasks within timeframes designated for professional competency
- b. correlate principles to practice
- c. complete work with precision and accuracy in accordance with established protocol

#### 4. Sensory Functions

- a. differentiate colors (hue, shading or intensity) and clarity
- b. read fine print including information displayed on orders, printouts, monitors, and equipment
- c. visually analyze specimens and reagents
- d. hear and respond to sounds produced in the laboratory environment

#### 5. Motor/Physical Functions

- a. sit/stand for prolonged periods of time
- b. safely and accurately manipulate laboratory instrumentation and equipment
- c. be able to lift 10 lbs.

# DEPARTMENT OF MEDICAL LABORATORY SCIENCE HT PROGRAM FACULTY AND STAFF

Brooke Solberg, PhD, MLS(ASCP)<sup>CM</sup> Associate Professor, Chair and Program Director

Beth Ann DeMontigny, BS, HTL(ASCP)<sup>CM</sup> Instructor, HT Clinical Education Coordinator

September Woolever, MLS(ASCP)<sup>CM</sup> Education Specialist

Katie Kucera, MS, MLS(ASCP)<sup>CM</sup> Education Specialist

Cherie Stoltman Administrative Officer brooke.solberg.1@UND.edu 701-777-2245, Rm E371 SMHS

elizabeth.demontigny@UND.edu 701-777-5976, Rm E368 SMHS

september.woolever@und.edu 701-777-2632, RM E361 SMSH

katelyn.kucera@UND.edu 701-777-6302, Rm E366 SMHS

cherylyn.stoltman@UND.edu 701-777-2628, Rm E372 SMHS

#### HISTOTECHNICIAN PROGRAM & CURRICULUM

The Histotechnician (HT) certificate curriculum includes the following pre-requisites:

- Associate degree (minimum)
- Introduction to Chemistry (at least 4 credits)
- Concepts of Biology (at least 4 credits)
- A College-Level Math Course
- Commitment from an approved clinical site

Upon successful completion of the established prerequisites, the student will apply for entrance into the HT certificate program. The HT program curriculum consists of 19 credits of asynchronous online courses and synchronous on-site clinical practicum courses, as outlined below. Upon successful completion of all HT program requirements the student receives a certificate from the University of North Dakota and is eligible for national board certification and entry-level practice as a Histotechnician. Note: Students with a bachelor's degree or higher and at least 30 credits of chemistry/biology coursework may also be eligible for national board certification and entry-level practice as a Histotechnologist (HTL).

#### **HT Program Curriculum**

- HT 360 Histopathology Laboratory Theory\*\* (3 credits): This course presents an overview of topics related to histology laboratory operations and an introduction to histology laboratory management.
- HT 362 Histotechniques I\*\* (3 credits): This course is the introduction to the fundamental techniques including fixation, processing, instrumentation, solution preparation and staining.
- HT 363 Histotechniques II\*\* (3 credits): This course is the continuation of the fundamental techniques of histology including: muscle and connective tissue, nerves, microorganisms, pigment, minerals, cytoplasmic granules, immunohistochemistry, and enzyme histochemistry.
- HT 367 Histology Clinical Practicum I\* (5 credits): This course is a supervised work experience in an accredited Histology Laboratory. Students will learn procedures in preparation and sectioning of tissue for staining.
- HT 368 Histology Clinical Practicum II\* (5 credits): Individual assignments in an accredited histology lab. The emphasis of this course is on refining skills learned in Practicum I, special staining procedures and tissue identification.

#### **Typical Schedule for Fall or Spring Start Dates:**

### Typical Schedule for Summer Start Dates:

FIRST	SECOND
SEMESTER	SEMESTER
HT 360	HT 363
HT 362	HT 368
HT 367	

FIRST SEMESTER	SECOND
	SEMESTER
HT 362	HT 360
HT 367	HT 363
	HT 368

<sup>\*</sup> Taught as a clinical practicum at assigned clinical affiliate. Modes of Instruction include observations, demonstrations, discussions, performance, and practical examination.

<sup>\*\*</sup> Taught as an online, asynchronous course. Modes of instruction include lecture, email, discussion, handouts, readings, study guides, other assignments, and/or exams.

# POLICIES, PROCEDURES & PROCESSES

#### Related Links:

UND Code of Student Life: <a href="https://und.edu/student-life/code-of-student-life.html">https://und.edu/student-life/code-of-student-life.html</a>
UND SMHS Student Policies: <a href="https://med.und.edu/about/policies/students.html">https://med.und.edu/about/policies/students.html</a>

UND HT Student Resources: https://med.und.edu/education-training/histotechnology/forms-

handbook.html

#### **Modifications to Polices, Procedures & Processes**

- The Department Medical Laboratory Science Professional and Academic Standards Committee (PASC) will review and modify the UND HT Program Student Orientation Handbook on an annual basis. The updated handbook will be available on the UND Histotechnology website.
- If necessary, additional modifications may be made by the Department of MLS PASC at any time.
   Modifications will be made available to students electronically and will take effect on the date of approval by the PASC.
- The most current policies, procedures and processes will be applicable to all students. It is the student's responsibility to be aware of updates and/or modifications.

#### HT PROGRAM POLICIES, PROCEDURES & PROCESSES

#### I. HISTOTECHNICIAN PROGRAM APPLICATION, ADVANCEMENT & PROGRAM STANDING

Application and acceptance to the University of North Dakota (UND) is different than the application process of the Histotechnician (HT) professional program. Acceptance (admission) to UND does not guarantee acceptance into the HT professional program, nor does acceptance to the UND HT professional program guarantee acceptance to UND. A separate application is required for each. UND admission and advanced placement policies are found on the UND website at <a href="https://und.edu/">https://und.edu/</a>

#### A. General HT Program Application/Admission Processes & Polices

- 1. HT program applications are reviewed by the HT program Education Coordinator, HT Program Director, and/or Department of MLS Non-Traditional Routes Admissions Committee.
- 2. The application process will include evaluation of pre-HT program coursework for the following criteria.
  - a. Completion of an associate degree (minimum) and required pre-requisite curriculum
  - b. Cumulative GPA of >2.8 on a scale of 4.0
  - c. A maximum of one letter grade of D for any college-level math or science course
  - d. A final grade of C or higher must be earned in all required pre-requisite courses
  - e. A maximum of one science course repeated
  - f. Any previous instance(s) of probation, disciplinary action, suspension, or dismissal from an academic or professional entity
  - g. Timely completion of pre-requisite courses
- 3. For any unmet application criteria, the application can be considered but the unmet criteria may impact the applicant's overall ranking, their admission status, and/or result in the applicant being placed on HT program probation if admitted.

- 4. The application process may also include an evaluation of reference/advisor recommendations.
- 5. The student must have commitment from a clinical site for hosting the clinical practicum portion of the student's coursework. The clinical site must be approved by the UND HT program as meeting curricular requirements, and an affiliation agreement between UND HT and the site must be in place.
- 6. Students must complete a criminal background check in adherence with the <a href="SMHS">SMHS</a>
  <a href="Background Check">Background Check</a>
  <a href="Page-18">policy as part of the application process</a>. Flagged Background Check results could prevent HT program admission.
- 7. Prospective students must review and acknowledge meeting the UND HT Program Essential Function Requirements listed in this handbook (page 7) as part of the application process.
- 8. If information on the application is falsified, the applicant will not be considered for admission. If application falsification is discovered after the applicant has already been offered admission to the HT program, the offer will be immediately rescinded.
- Applications received after the application deadline (which is published within the program application and/or on HT website) will be subject to ranking deductions, and will only be considered if capacity allows and the timeline for review and/or potential admission is feasible.
- 10. Admission to the HT program is competitive. Applicants are ranked based on the degree to which application criteria/components are met.
  - a. Applicants whose rankings qualify them for an available HT program slot will be offered full admission.
  - b. Applicants that do not initially receive full admission but whose rankings suggest that forthcoming HT program placement is reasonable will be given alternate/waitlist admission. Alternates will be moved to full admission status if additional slots become available for which they are competitively ranked, and if the timeframe is realistic for completion of program pre-requisites, clinical site placement, and/or required UND admission processes.
    - Alternates not moved to full admission status are eligible to re-apply in the future.
  - c. Applicants that do not meet application criteria and/or whose rankings make forthcoming HT program placement unlikely will be denied admission.
    - i. Denial of admission to the HT program does not impact the applicant's admission status at UND or any non-HT program courses the applicant is taking at UND.

#### B. HT Program Advancement/Academic Standing

- Students in the HT Program may be placed on program-level probation for academic and/or professional standard(s) issues. Specific policies and processes related to HT Program probation are described throughout the HT Program Student Handbook.
- 2. Being placed on probation within the HT Program does not impact academic standing at UND (i.e., the student is only on probation with the HT Program and no other UND program).

#### C. HT Program Dismissal

- 1. An instance of any of the following will be reviewed by the Department of MLS Professional and Academic Standards Committee and is grounds for immediate dismissal from the HT Program and may or may not be grounds for dismissal from UND, per UND policies:
  - a. Any proven evidence of academic dishonesty.
  - b. Violation of the Health Insurance Portability and Accountability Act (HIPAA) of 1996.
    - i. Disregard of the patient's right to confidentiality and/or privacy
    - Accessing patient/healthcare information not needed to complete laboratory duties.
  - c. Failure to comply with any institutional (University or clinical affiliate), department, program, or course policies/standards.

- Any activity or behavior that is careless, disruptive, unsafe, or harmful to oneself or others.
- e. Inability to meet UND HT Essential Functions.
- f. Dismissal as determined by UND HT Program probation policies.
- g. Dismissal as determined by the UND Code of Student Life.
- 2. Students dismissed from the UND HT Program will not meet the requirements to earn a certificate in HT and will not be deemed eligible by UND HT to take the board of certification exam.
- 3. Students dismissed from the UND HT Program will not be simultaneously dismissed from UND, unless the infraction is also a violation of UND-level policies.

#### II. CRIMINAL BACKGROUND CHECK

- A. The UND SMHS has a policy that requires criminal background checks of students in all health-related programs, which can be found on the SMHS Student Policy Website.
- B. Per the SMHS policy, the criminal background checks must be completed through *Verified Credentials*, the approved agency. Students in the HT Program route must check with UND HT Faculty/Staff to determine if their employment background checks comply with the SMHS policy.
- C. An initial criminal background check must be completed at the time of application. Some program routes may need to complete another background check at the beginning of HT program coursework (consult route advisor to determine if a second background check is needed).
  - 1. If criminal activity or an allegation of criminal activity occurs at any point after the initial criminal background check (which occurs at the time of program application), the student must inform UND HT faculty/staff immediately so that potential impact to academic progress can be assessed.
- D. The student is responsible for all fees associated with the *Verified Credentials* criminal background check and must be able to pay the fees electronically at the time of background check submission.
- E. Discrepancies identified through the criminal background check will be reviewed by HT faculty/staff and forwarded as appropriate to the SMHS Criminal Background Check Review Committee. Certain discrepancies may result in the student not being accepted into or not being allowed to continue/advance in the HT program.

#### **III. ESSENTIAL FUNCTIONS & TECHNICAL STANDARDS**

A. The UND Department of MLS has defined Essential Functions (page 7) and the UND School of Medicine & Health Sciences (SMHS) has defined Technical and Academic Standards (Appendix 3) that are applicable to HT program students. All HT program students, with or without accommodations, must meet the defined HT program Essential Functions and SMHS Technical and Academic Standards to matriculate, progress through the program's curriculum, and complete HT program graduation requirements.

#### IV. PARTICIPATION IN EDUCATION AS IT RELATES TO STUDENT HEALTH

A. Students who are known to have a condition (injury, illness, infection, environmental disease) that may negatively impact themselves, fellow students, staff, faculty or patients have a professional obligation to inform and work with UND MLS faculty/staff to develop a plan to balance their own health, educational needs and confidentiality as well as the health of others with whom they may come in contact. See the UND SMHS Policy 3.7 – Participation in Education as it Relates to Student Health, found on the SMHS Student Policy website, for complete details (note: this policy was previously titled as "Health Conditions Impacting Student Participation").

#### V. DISABILITY ACCESS

A. The University of North Dakota is committed to providing equal access to students with documented disabilities. To ensure access to this class and your program, please contact DSS to engage in a

confidential discussion about accommodations for the classroom and clinical settings. Accommodations are not provided retroactively. Students are encouraged to register with DSS at the start of their program. More information can be obtained by email <a href="mailto:UND.dss@UND.edu">UND.dss@UND.edu</a> or by phone at 701,777,2664.

#### VI. STUDENT/GRADUATE RECORDS

- A. All files concerning students are subject to the Family Education Rights and Privacy Act of 1974. Specific information concerning student records is published in the UND Code of Student Life.
- B. The Office of Admissions and Records (Registrar) maintains official documents for students enrolled in courses at the University of North Dakota, such as the application to the University, official transcripts from other institutions, UND transcripts and other such official documents. These records are maintained permanently.
- C. The Department of MLS maintains an academic file for each student officially enrolled in the HT program of study. These files are maintained for the duration of established records/retention timeframes.

#### VII. UNIVERSITY REFUND POLICY

- A. A student who drops or withdraws from the university after the beginning of instruction will be granted a refund of tuition in accordance with Undergraduate Academic Calendar published by the UND registrar (<a href="https://und.edu/academics/registrar/index.html">https://und.edu/academics/registrar/index.html</a>).
- B. Current students wishing to dispute a charge must follow UND One Stop Student Services processes (<a href="https://und.edu/one-stop/tuition-fees/payment.html">https://und.edu/one-stop/tuition-fees/payment.html</a>). Note that students dismissed from a HT program route for failure to comply with UND HT policies likely will not be eligible for a refund.

#### VIII. UNXPECTED UNIVERSITY OR PROGRAM INTERRUPTION/CLOSURE

- A. In the event of an emergent situation that could impact University functions, a phone alert system at UND will notify all students, staff, and faculty of the immediate situation. Further information will be disseminated as the situation evolves. In addition, each department at UND has an established Continuity of Operations Plan (COOP) that will go into effect if the situation warrants, which includes direct notification of multiple departmental personnel (including the Program Director). The UND Department of MLS will work in cooperation with the UND Office of Emergency Management as appropriate. Course instructors will alert students to any potential course/schedule changes via Blackboard and/or email.
- B. In the event of an emergent or unforeseen circumstance arising that forces temporary or long-term closure of the program or University, within 30 days a teach-out plan will be implemented. In the teach-out plan, every effort will be made to provide students with options for the continuation of their program of study with the shortest interruption possible. Any refunds of tuition and fees would be determined by the UND Office of the Registrar.

#### IX. LEAVE

A. Family leave, funeral leave, military leave, or sports participant leave will be given following the UND Code of Student Life Policies. A leave of absence may require a delay in completion of the program.

#### X. DRUG & ALOCHOL SCREENING

A. Any student may be subject to drug and/or alcohol screening as outlined in the SMHS Drug and Alcohol Screening and Education Program Policy. A positive drug/alcohol drug screen will be subject to disciplinary action up to and including immediate dismissal from the program. The complete Drug and Alcohol Screening and Education Program Policy can be found on the SMHS student policy website.



#### XI. EMAIL COMMUNICATIONS

- A. All students admitted to the HT Certificate Program and/or taking HT courses will be assigned a UND email account. It is the student's responsibility to monitor this account regularly as all communication initiated from UND HT faculty/staff will be made using this e-mail account.
- B. HT faculty/staff will make every effort to respond to emails within 1-2 business days of receipt, unless otherwise indicated (ex. an out-of-office reply).

#### XII. PROMOTIONAL IMAGES

A. Photos and/or videos taken during HT coursework and activities may be utilized for educational and/or promotional purposes. Students not wanting their image to be utilized for these purposes must communicate the request in writing to the UND HT Education Coordinator.

#### XIII. BIOHAZARD & SAFETY

- A. Students are expected to be aware of and comply with the following safety standards and/or policies:
  - 1. UND Bloodborne Pathogens Exposure Control Plan: https://und.policystat.com/policy/7739092/latest/
  - 2. SMHS Bloodborne Pathogen Exposure: Immediate Steps
    - a.In the event of a needle stick, sharps injury, or exposure to blood or other potentially infectious material, follow the steps outlined in this link and any clinical site requirements: <a href="https://med.und.edu/about/policies/bloodborne-pathogen-immediate-steps.html">https://med.und.edu/about/policies/bloodborne-pathogen-immediate-steps.html</a>
  - 3. Department of MLS Safety Standard (Appendix 2)
  - 4. Safety/Biohazard policies and procedures at the clinical affiliate site

#### XIV. LEARNER MISTREATMENT

A. The Department of MLS recognizes its obligation to maintain a safe and healthy learning environment. Any learner who feels that they may have been subjected to non-protected class mistreatment of any kind by UND faculty or staff has options for addressing the mistreatment. See the UND SMHS Policy on Learner Mistreatment, found on the SMHS policy website,

#### XV. STUDENT CONCERNS

- A. If students have concerns related to the safety of themselves or others, and/or the learning environment, they should communicate that concern to the HT Program Director or another UND HT faculty/staff immediately.
- B. At any point, students wishing to share ideas and/or feedback about the program may do so by contacting the HT Program Director, Brooke Solberg (brooke.solberg.1@UND.edu; 701-777-2245).

#### XVI. STUDENT ACADEMIC GRIEVANCES & APPEALS

A. Any HT student shall be provided the opportunity to seek redress where they believe SMHS and/or HT program policy has not been followed with respect to academic matters. This includes but is not limited to issues related to course grades, outcomes, or other academic or professional behaviors. To initiate a grievance or appeal, students must follow the UND SMHS Student Academic Grievance and Appeal Policy 3.9, which can be found on the UND SMHS website. Note that aspects of this policy are time sensitive, typically within a 30-day window.

#### XVII. PROFESSIONAL & ACADEMIC STANDARDS COMMITTEE (PASC)

A. The Department of MLS Professional & Academic Standards Committee (PASC) reviews instances where students have not met professional and/or academic standards, as outlined in the HT Handbook.

- All full-time faculty and staff with instructional and/or advising roles within the Department of MLS are voting members of the PASC. If a member is a student in the same program route as student/issue under review, they will not be eligible to participate in the correlating PASC meeting(s).
- 2. The Department of MLS Chair serves as a non-voting advisory member and communicates all PASC decisions to students.
- B. Students involved in PASC review will be notified and given the opportunity to provide feedback prior to the meeting.
- C. Decisions of the PASC may be eligible for petition, as described in the Student Petitions policy.

#### **XVIII. STUDENT PETITIONS**

- A. Any programmatic decision made by the Department of MLS Professional and Academic Standards Committee (PASC) is eligible for petition if: 1.) the student believes HT program policy has not been followed, or 2.) if the student has additional information to share beyond what was originally reviewed by the PASC.
- B. To initiate a petition to the PASC, students must complete the "HT Professional and Academic Petition Form" found on the Histotechnology website and submit it to the HT Program Director within 14 days of the PASC decision. Incomplete petitions, petitions received after the 14-day window, or petitions not meeting review criteria will not be eligible for review.
  - 1. As part of the Petition Form, students may request to speak directly to the PASC. The student will be contacted by a PASC representative to coordinate meeting time.
- C. The original PASC decision will remain in effect throughout the petition process until the PASC reviews and votes on the petition. At that time the petition decision will stand as final.
- D. The HT Program Director will notify the student of the PASC's petition decision within 7 days of receipt of the petition.

#### **XIX. PROBATION STATUS**

- A. A student may be placed on probation within the Department of MLS Histotechnician Program for failure to meet admissions criteria or failure to comply with academic and/or standards of professional conduct policies.
  - 1. Any instance of a student being placed on probation will be reviewed by the Professional & Academic Standards Committee and/or Admissions Committee prior to student notification.
  - 2. A student being placed on probation will be notified in writing. The written notification will explain the reason/policy infraction warranting probation, requirements for continuance in the HT Program, and duration of the probation status.
    - a. The student will be directed to sign and return the written notification as acknowledgement of notification of probation status. A student's refusal or failure to provide a signature as directed will result in HT Program dismissal.
    - b. Failure to comply with requirements for HT Program continuance outlined in the written notification will result in HT Program dismissal (and may or may not be grounds for dismissal from UND, per UND policies).
    - c. Students who meet the requirements established in the written notification will be allowed to continue in the HT Program but will be required to comply with academic and standards of professional conduct policies designated for students on probation.
- B. Students placed on probation will remain on probation for the duration of the HT Program, unless otherwise noted in the initial probation letter.

#### XX. STANDARDS OF PROFESSIONAL CONDUCT

A. The student must meet Department of MLS Standards of Professional Conduct during all program coursework and activities. If a student does not meet one of more of the standards, they will receive a Professional Conduct Evaluation Form (Appendix 1) that outlines the unmet standard(s) and provides correlating suggestions for improvement. All instances of unmet Standards of Professional Conduct are reviewed by the Department of MLS Professional and Academic Standards Committee.

- 1. If a student does not meet the Department of MLS Standards of Professional Conduct:
  - a. For the student not already admitted to the HT Program: Documentation related to the unmet standard or any future failure to meet a standard will be considered if the student chooses to apply to the HT Program, and may impact admission status and/or program advancement.
  - b. For the student already admitted to the HT Program but not currently on probation: The student will be placed on probation (see Probation Status policy).
  - c. For the student already admitted to the HT Program and currently on probation: The student is dismissed from the HT Program.
- 2. If a student does not meet the Department of MLS Standards of Professional Conduct and the unmet standard warrants immediate dismissal per the dismissal policies outlined in this handbook:
  - a. The student is dismissed from the HT Program, regardless of probation status.
- B. The Department of MLS Standards of Professional Conduct is as follows:

The student is expected to:

- 1. demonstrate time management skills by completing assigned tasks within timeframes designated for professional competency
- 2. follow oral and written directions
- demonstrate ability to perform required skills and maintain professionalism (by continuing to meet Standards of Professional Conduct) under distracting, demanding, and/or stressful circumstances
- 4. adapt to an environment that may change rapidly, without warning, and in unpredictable ways
- 5. correlate principles to practice
- 6. demonstrate neatness by making the work area and submitted documents presentable
- 7. attend, be punctual, and be present for the duration of all scheduled program coursework
- 8. maintain consistent, positive work behaviors including initiative, preparedness, dependability, persistence, and follow-through
- 9. complete work with precision and accuracy in accordance with established protocol
- 10. with minimal redirection, independently perform work and recognize appropriate next steps/actions
- 11. take ownership of and be accountable for your actions
- 12. project an image of professionalism through appearance, dress, hygiene, positive attitude, value of coursework and body language
- 13. read, comprehend, and respond to English communications (including person-to-person, telephone, electronic, and written forms) in an effective, respectful, and time-sensitive manner
- 14. demonstrate appropriate interpersonal behaviors while interacting with others during programrelated occurrences, including but not limited to: courtesy and cooperation; receiving and responding to constructive feedback; respect and empathy; and non-threatening conduct
- 15. develop organizational, prioritization, and multi-tasking skills throughout all program coursework
- 16. abstain from use of illegal, prescription, over-the-counter, experimental, recreational, or other drugs that have a significant effect upon an individual's judgement
- 17. comply with all institutional (University and clinical affiliate), department, program, course, and laboratory policies and procedures, including safety standards/policies
- 18. demonstrate academic and professional integrity as outlined in departmental policies/procedures/standards
- 19. demonstrate responsible and appropriate use of electronic resources and communication systems (including but not limited to: cell phones, computers, tablets, email, instant messaging, social media, blogs, and websites) that is not disruptive or harmful to oneself or others

#### XXI. COURSE SECTIONS

A. For all HT courses, HT advisors will assign students to the appropriate course section for their designated route/program of study. Students will receive registration information for these courses during required advisement sessions.

#### XXII. PROCTOR INFORMATION

- A. For HT courses with closed-book exams, the exam(s) must be proctored by personnel from the student's assigned clinical affiliate site. Taking a closed-book exam without the proctor's knowledge will result in zero credit for the corresponding exam and is grounds for dismissal from the program.
- B. If circumstances arise that require use of a proctor outside of the clinical affiliate, it must be approved by UND HT faculty. If the alternate approved proctor service requires a fee for use, the student will be responsible for those fees.

#### XXIII. COURSE POLICIES

A. Students must comply with all course policies listed in HT course syllabi. Student compliance or non-compliance with these course policies will be reflected in the Department of MLS Standards of Professional Conduct evaluations and addressed according to the Standards of Professional Conduct Policy.

#### XXIV. GRADING

A. Grades for HT courses may be determined using the following learning domains:

Domains	Examples
Cognitive	Quizzes, assignments, exams
Psychomotor	Performance in the laboratory and/or at the clinical site
Affective	Standards of Professional Conduct evaluation

- B. In addition to the three domains of learning, courses may contain critical objectives. Failure of any single critical objective is equivalent to failure of the overall course.
- C. If a student fails a performance evaluation, receives an initial "D" or "F" grade, or does not successfully complete one or more critical objectives in any HT program course (HT 360, 362, 363, 367, and 368), the following rules apply:
  - 1. For the student not on probation:
    - a. The student is placed on probation for the remainder of the HT program.
    - b. The student will receive a written remediation plan developed by UND faculty/staff that will establish competence for continuance in the HT program. The written remediation plan will be signed by the instructor of the course, the HT Education Coordinator or the HT Program Director, and the student.
      - i. Successful compliance with the written remediation plan will result in the student earning a letter grade of "C" for the course, and HT program continuance.
      - ii. Failure to comply with the written remediation plan will result in the student retaining the original "D" or "F" grade in the course and being dismissed from the HT program.
  - 2. For the student on probation:
    - a. The student is dismissed from the HT program and continuance in the program.
- D. A final grade of C or higher must be earned in all HT courses.
- E. Incomplete Grade Policy: It is expected that students will complete all requirements for a course during the time frame of the course. For reasons beyond a student's control, and upon request by the student or on behalf of the student, an incomplete grade may be assigned by the instructor when there is reasonable certainty the student will successfully complete the course without retaking it. The mark "I", Incomplete, will be assigned only to the student who has been in attendance and has satisfactory work up to a time within four weeks of the close of the semester, including the examination period, and whose work is incomplete for reasons satisfactory to his/her instructor.

- If the student completes work in accordance with the dates and requirements set forth by the
  instructor, the final grade will be calculated based on established course evaluation criteria,
  and reported on the transcript as that letter grade followed by the letter 'l' (ex. Al). Note that it
  is the responsibility of the student to inform the instructor when they have finished incomplete
  work.
- 2. If an extension on the due date for incomplete work is desired, it is the responsibility of the student to request the extension from the instructor ahead of the current due date. Note that requesting an extension does not guarantee that an extension can be provided.
- 3. If the student does not complete incomplete work in accordance with the dates and requirements set forth by the instructor, the final course grade will convert to an F (FI), or the calculated grade at that point.

#### XXV. HEALTH INSURANCE

- A. Students are responsible for having a health insurance policy throughout the duration of coursework completed at a clinical affiliate site. UND program officials will complete verification of this policy.
- B. Students are responsible for payment of health-related bills that occur, including needle sticks or bloodborne/airborne pathogen exposure.

#### XXVI. LIABILITY INSURANCE

A. The University will provide professional liability insurance for University students and faculty/staff liaisons with maximum limits of \$1,000,000 per occurrence and \$5,000,000 annual aggregate.

#### XXVII. CLINICAL SITE PLACEMENT

- A. All clinical sites affiliated with the UND HT program have met equivalency requirements which ensure that the site can provide an experience that meets defined UND HT learning objectives.
- B. At the time of application, the student will provide contact information for their identified clinical site. UND HT personnel will contact the site and begin the evaluation process to determine if the site meets requirements for providing required learning objectives. If the site meets requirements, UND HT personnel will work with them to establish an affiliation agreement. The student cannot begin clinical practicum coursework until the affiliation agreement is in place.
- C. The student must abide by the clinical affiliate's policies in addition to UND HT policies, such as dress code, required vaccinations, physical exam tests, parking policies, etc.

#### XXVIII. CLINICAL PRACTICUM HOURS

- A. The scheduling of required clinical practicum rotations is influenced by workflow at the assigned clinical affiliate and the desire to expose students to various skillsets. As such, clinical practicum experiences may occur during any shift, in accordance with when a site can best facilitate learning/skillset exposure.
- B. Each clinical affiliate has its own workflow and department organization. The length of time that a student spends in a particular subject area or experience may differ because of the variety of testing and procedures that are incorporated into that department. Taking those aspects into consideration, student clinical schedules through the departments will be created by the clinical affiliate liaison with consultation from the UND HT education coordinator and will include an established minimum time requirement.

#### XXIX. CLINICAL PRACTICUM SCHEDULE & ATTENDANCE EXPECTATIONS

- A. Daily Schedule:
  - 1. Students are expected to report to their clinical affiliate on time and as scheduled to complete HT program coursework. Failure to adhere to the established schedule will be reflected in Standards of Professional Conduct evaluations.



- 2. Students are expected to stay at the clinical affiliate until dismissed by the bench instructor for the day. Asking to leave early is not appropriate.
- 3. The student is not allowed to perform service work at any point during the daily clinical practicum schedule.

#### B. Personal/Illness Leave Time/Student Holiday

- 1. A maximum of three personal/illness leave days are granted each semester. Personal/illness leave is only meant to be used when absolutely necessary. Personal leave cannot be utilized during the final week of a clinical practicum course.
- 2. The student may request personal leave time only with the consent of the clinical affiliate site liaison. Notification must be made at least five days in advance.
- 3. For each day of an illness related absence, the student MUST call the department/area they are currently rotating in at least ½ hour before the scheduled arrival time. If an illness related absence becomes prolonged, notify UND HT Faculty/Staff.
- 4. UND has established holiday/breaks during each semester. At the discretion of the clinical affiliate, these holidays/breaks may or may not be implemented into the student's scheduled coursework.

#### C. Make-Up Time:

- 1. If the student exceeds more than the total number of personal/illness days allowed, additional time may need to be added to the student's schedule.
- 2. If an excess of personal leave time has occurred, the clinical affiliate may decline the opportunity for make-up time to be completed at their institution and an alternative site placement may occur.
- 3. Make-up time may delay graduation and/or certification exam eligibility.

#### D. Extended Time Off:

- 1. If the student needs an extended period of time off, the clinical affiliate site liaison, the student, and UND HT faculty/staff will assess the situation and make appropriate adjustments if possible, and in accordance with established policies.
- 2. An alternate clinical affiliate site may need to be assigned.

#### E. Inclement Weather:

- Notification of university/college closure due to inclement weather does not mean the student is excused from online or clinical practicum coursework. If the student is not in the weatherimpacted area, they should proceed with coursework as normal. If the student is in the weather-impacted area, they must communicate with the clinical affiliate site to determine whether attendance is appropriate.
- F. Other Clinical Practicum Expectations
  - 1. Students must coordinate their own transportation to and from clinical sites.
  - 2. Students are responsible for securing their own housing for the duration of program coursework.

#### XXX. EMPLOYMENT/SERVICE WORK

- A. Service Work is defined as performance of duties expected of a paid employee by an unpaid student. Upon demonstration of proficiency in the learning environment, students may perform clinical tests under the direct supervision of a qualified laboratorian employed by the clinical affiliate. However, at no time is the unpaid student expected or allowed to perform service work and/or replace paid employees.
- B. A student can seek out optional employment at his/her own discretion. However, employment is not a required program component and does not fall under any academic jurisdiction.

#### XXXI. UNEXPECTED DISCONTINUANCE OF A CLINICAL AFFILIATE

- A. When circumstances outside of a clinical affiliate's control lead to an unexpected discontinuation of the clinical site affiliation that a student has been or is assigned to, the Department of MLS will secure an alternate clinical site to allow the student to finish his/her program of study.
- B. Placement at alternate clinical site will depend on site availability and may not be at the student's preferred site or location, or offer the student's preferred scheduling. When an alternate site is

secured, UND MLS will provide the student with an individualized program completion plan, which may include a delayed program completion date.

#### XXXII. REMOVAL FROM A CLINICAL AFFILIATE SITE

- A. In the event that a clinical affiliate chooses to remove a student from the clinical placement at their facility, and the removal does not warrant dismissal per existing dismissal policies, the situation will be reviewed by the Department of MLS Professional & Academic Standards Committee (PASC) to determine if the removal circumstances would inhibit/impede placement at another clinical affiliate or future ability to meet entry-level and employment competencies.
  - 1. If the PASC determines that placement at an alternate site is reasonable/feasible, the Department of MLS will attempt to secure an alternate clinical site to allow the student to finish their program of study. Placement at alternate clinical site will depend on site availability and may not be at the student's preferred site or location, or offer the student's preferred scheduling. If an alternate site is secured, UND MLS will provide the student with an individualized program completion plan, which may include a delayed program completion date.
    - a. If the alternate clinical site also chooses to remove the student from their clinical placement, the student will be dismissed from the program.
  - 2. If placement at an alternate site is determined to be unreasonable/not feasible, the student will be dismissed from the program.

#### XXXIII. NATIONAL CERTIFICATION EXAM ELIGIBILITY

A. The issuing of a certificate in HT from the University of North Dakota is NOT contingent upon the student passing any type of national/external certification examination.



#### **APPENDIX 1: Department of MLS Standards of Professional Conduct Evaluation**

#### DEPARTMENT OF MLS STANDARDS of PROFESSIONAL CONDUCT EVALUATION

Student		Date		Course(s)/Area(s)	
MEETS	MEETS The student is meeting the standard				
NEEDS IMPROVEMENT	EDS IMPROVEMENT The student needs improvement and requires re-direction/feedback to move toward 'meets'			ard 'meets'	
DOES NOT MEET The student is not meeting the standard and requires further action beyond re-direction/feedback, as		ection/feedback, as			
described in the MLS professional policies					

NEEDS DOES STANDARD OF PROFESSIONAL CONDUCT MEETS IMPROVE-NOT MENT MEET demonstrate time management skills by completing assigned tasks within timeframes designated for 1 professional competency 2 follow oral and written directions demonstrate ability to perform required skills and maintain professionalism (by continuing to meet 3 Standards of Professional Conduct) under distracting, demanding, and/or stressful circumstances adapt to an environment that may change rapidly without warning and in unpredictable ways 4 correlate principles to practice 5 6 demonstrate neatness by making the work area and submitted documents presentable 7 attend, be punctual, and be present for the duration of all scheduled program coursework maintain consistent, positive work behaviors including initiative, preparedness, dependability, 8 persistence, and follow-through complete work with precision and accuracy in accordance with established protocol 9 with minimal redirection, independently perform work and recognize appropriate next steps/actions 10 11 take ownership of and be accountable for your actions project an image of professionalism through appearance, dress, hygiene, positive attitude, value of 12 coursework and body language read, comprehend, initiate and respond to English communications (including person-to person, 13 telephone, electronic, and written forms) in an effective, respectful, and time-sensitive manner demonstrate appropriate interpersonal behaviors while interacting with others during programrelated occurrences, including but not limited to: courtesy and cooperation; receiving and responding to constructive feedback; respect and empathy; and non-threatening conduct 15 develop organizational, prioritization, and multi-tasking skills throughout all program coursework abstain from use of illegal, prescription, over-the-counter, experimental, recreational, or other drugs 16 that have a significant effect upon an individual's judgment comply with all institutional (University and clinical affiliate), department, program, course, and 17 laboratory policies and procedures, including safety standards/policies demonstrate academic and professional integrity as outlined in departmental 18 policies/procedures/standards demonstrate responsible and appropriate use of electronic resources and communication systems (including but not limited to: cell phones, computers, tablets, email, instant messaging, social media, blogs, and websites) that is not disruptive or harmful to oneself or others

#### Evaluator(s):

#### Comments/Feedback:

In order to move to a "meets" designation for the standards indicated above, the following actions are suggested:

 ${\it If the SPC evaluation includes a ``Does Not Meet", include the following language in feedback:}\\$ 

Per policy, this instance of not meeting MLS Standard(s) of Professional Conduct will be reviewed by the Professional and Academic Standards Committee (PASC) and could result in [being placed on probation OR being dismissed from the MLS professional program]. If you have additional feedback to share with the PASC for their review, please send that feedback to Sam Peterson (s.peterson@UND.edu) by [due date].

Student Signature:	Date:	

-By signing this form, I am indicating that I have read and understand the comments provided in this evaluation and/or written plan.

Please return the signed form to Samantha Peterson at s.peterson@UND.edu

v 5 12 22



#### **APPENDIX 2: Department of MLS Laboratory Safety Standard**

University of North Dakota Department of Medical Laboratory Science Grand Forks, ND

STANDARD: Laboratory Safety Effective: 04/10/2019

#### PURPOSE

This standard establishes general safe practices in the Medical Laboratory Science (MLS) biohazard laboratory. Control measures described in this standard are essential for protecting all laboratory occupants from potential biological, chemical, and physical hazards.

#### ROLES AND RESPONSIBILITIES

Safety Coordinator - Provide guidance and ensure safety in the laboratory

Faculty/Staff/GTA's - Comply with all MLS safety policies, report unsafe working conditions as well as accidents to the MLS Safety Coordinator or Program Director

Students - Comply with all MLS safety policies

#### DEFINITIONS

Work Practice Controls – Also known as Administrative Controls, are changes in work procedures such as written safety policies, rules, posted signs, alarms and warnings, and training with the goal of reducing the duration, frequency, and severity of exposure to hazardous chemicals or situations.

Personal Protective Equipment (PPE) – Equipment worm or used to minimize exposure to physical, chemical, or biological agents. Per OSHA regulations, personal protective equipment must prohibit blood or other potentially infectious materials (OPIM) from passing through to clothing, skin, eyes, mouth, or other mucous membranes.

Sharps – Objects that can penetrate skin, such as needles, scalpels, broken glass, and capillary tubes. If blood or other potentially infectious materials (OPIM) are present or may be present on the sharp, it is considered a contaminated sharp.

Standard precautions – 1<sup>st</sup> tier of basic infection control. A set of precautions applied to all patients designed to reduce the risk of transmission of bloodborne and other potentially infectious materials (OPIM) in the health care setting. All blood, tissue, body fluids, secretions, and excretions (except sweat) are considered potentially infectious.

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#### GENERAL SAFETY

#### **Engineering Controls**

Engineering controls are controls designed to reduce work related hazards. They reduce exposure by removing, eliminating, or isolating the hazard.

Biological Safety Cabinet (BSC)	Act as a primary barrier to contain hazardous biological materials within the cabinet and away from the laboratorian's breathing zone.  Includes three classes (I, II, III). Class II is further divided into four types: A1, A2, B1, B2.  The MLS biohazard lab has two (2) class II, type A2 BSC's.  Students will be instructed on the use of the BSC's as needed based on the class and activity.
Centrifuge Safety	Protects against release of aerosols
Equipment	<ul> <li>Includes safety cups, rotors with covers, removable rotors, and O-rings</li> </ul>
	Always check tubes for cracks prior to placing in centrifuge
Pipetting Aids	For the safe use of pipettes
	Bulbs, pipettes with cotton plugs
Splatter shields	Protects from exposure when opening specimen containers or manipulating specimens in a manner that would cause a splash
	Students will be instructed on the use of splatter shields as needed.
Enclosed Electrical Incinerators	Reduce splatter when decontaminating bacteriological loops
	The MLS Biohazard laboratory uses only enclosed electrical incinerators.

#### Personal Protective Equipment

PPE is not a substitute for good engineering or work practice controls. PPE is used in conjunction with these controls to ensure safety.

Fluid Resistant	Fluid resistant laboratory coats are to be worn at all times in the MLS
Laboratory Coats	Biohazard laboratory. It is at the discretion of the instructor whether or not students need to wear lab coats while in the lab for lecture only. Cloth lab coats are not allowed.
	Lab coats must be long sleeved, knee length, button in the front Students White lab coats Purchase through UND MLS Club or UND Bookstore. Faculty/Staff/GTA's - Ceil Blue lab coats

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	<ul> <li>Remove lab coat immediately if it becomes contaminated with hazardous materials. Place contaminated lab coats into marked biohazard bags for laundering.</li> <li>Remove lab coat prior to leaving the laboratory. Lab Coats are not to be worn outside of the MLS biohazard lab.</li> <li>Lab coats are laundered by UND laundry services. Bringing lab coats home for laundering is prohibited.</li> </ul>
Disposable Gloves	Disposable gloves must be worn in the laboratory when performing tasks where contact with blood or OPIM is possible, including surfaces contaminated with these materials.
	Immediately remove gloves that are contaminated with blood or OPIM and discard in the biohazard containers. Wash hands before putting a new pair of gloves on.
	Gloves should be replaced when they are torn, punctured, wet, or when their ability to function as a barrier is compromised.     Do not wash or reuse disposable gloves
	Remove gloves and wash hands when finished working with hazardous materials as well as prior to leaving the laboratory at any time.  Remove gloves using an aseptic technique and discard in the biohazard waste.
	Nitrile gloves are provided by the MLS department. In the case of allergy to provided gloves, other alternatives will be offered by the department.
Heat Resistant Gloves	Protect hands when handling hot objects.
Gioves	Use when removing autoclave bins or handling other hot objects such as electrophoresis gels.
Face and Eye Protection	Safety goggles, face shields, or other eye and face protectors need to be worn when performing activities that pose a risk of splashing hazardous substances into the eyes, nose, or mouth.
	<ul> <li>This type of exposure may happen during tasks such as handling chemicals or infectious materials.</li> </ul>
	<ul> <li>Prescription eyeglasses do not offer adequate protection from splashes.</li> <li>Safety glasses that fit over the top of prescription glasses will be required.</li> </ul>
	Safety goggles and/or face masks, including those that fit over the top of prescription glasses, will be provided by the MLS department.

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#### Sharps Engineering Controls

Additional engineering controls to use when working with sharps.

#### Handling of Sharps

Handle all needles, contaminated glass, and other sharp objects with extreme

- Never purposely bend, break, or re-cap used needles.
  - \*OSHA exception: if the procedure requires the contaminated needle to be recapped or removed and no alternative is feasible and the action is required by the medical procedure. If such action is required, then the recapping or removal of the needle must be done by the use of a mechanical device or a one-handed technique.
- Needles with safety shields will be used for all phlebotomy procedures.
- After use, place all sharps in a puncture-resistant container.

#### Work Practice Controls

#### Infection Control Mouth pipetting is prohibited. Hands must be kept away from the mouth, nose, eyes, and other mucous membranes to reduce the possibility of self-inoculation. Use Biohazard wipes when removing the tops from specimens to minimize aerosol production. Never leave a discarded tube or infected material unattended or unlabeled. The laboratory door must be kept shut (do not prop open). This is to ensure proper air exchange as well as to reduce the risk of biohazard contamination outside of the laboratory. Hand Hygiene Hands should be washed after the following: Removing gloves Before leaving the laboratory Before and after contact with patients Before eating, drinking, smoking or the manipulation of contact lenses Immediately after accidental contact with blood or OPIM. Steps recommended for proper handwashing: Wet hands with clean running water (warm or cold) and apply soap. 2. Rub hands together to make a lather and scrub the well. Be sure to scrub the back of the hands, between fingers, and under nails. 3. Continue rubbing hands for at least 20 seconds. Rinse hands well under running water. Dry hands using a clean towel. Use towel to turn off faucet.

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#### Decontamination Decontaminate works areas with an appropriate chemical germicide after a spill with blood or OPIM and at the end of every laboratory session. Wear gloves and appropriate PPE when decontaminating work surfaces. Commercial disinfectants or a 1:10 bleach solution will be used in the MLS biohazard lab. For biohazard spills, notify an instructor immediately. Decontaminate work space as soon as feasible after a spill of blood or body PPE and double gloves should be worn when doing the clean-up. Saturate the spill with bleach and let sit for five minutes. If glass is involved, the spill should be picked up with a biohazard disposal kit or dustpan and broom and disposed of in a biohazard labeled sharps container. For chemical spills, notify an instructor immediately. Follow all directions indicated in the SDS sheet. For small spills, use the chemical spill kit located in the safety cabinet For large spills, contact the UND Office of Safety Immediately.

Emer	

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Eyewash Stations	<ul> <li>In the event of a hazardous splash to the eye, immediately notify an instructor and proceed to the nearest eyewash station.</li> <li>Active the eyewash.</li> <li>Hold eyes open and flush for a minimum of 15 minutes, rolling the eyes left to right and up and down to ensure all surfaces are flushed.</li> <li>Contact lenses may be gently taken out during flushing.</li> <li>Immediately seek medical attention after flushing is complete.</li> </ul>
Emergency Shower	In the event of a hazardous splash to the body, immediately notify an instructor and proceed to the nearest emergency shower.  Stand under the shower and turn water on Remove contaminated clothing while under the shower Rinse for a minimum of 15 minutes.  Immediately seek medical attention after rinsing is complete.  Instructors will notify UND Office of Safety in the event the emergency shower is used to control the water from leaking to other areas of the building.

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#### Waste Disposal

Students will be instructed on proper waste disposal during safety orientation.

Biohazard Waste Containers	Specimens, including blood and OPIM must be disposed of in a container that prevents leakage.  Containers must have a biohazard label and be red/orange in color.  All gloves, plastic transfer pipettes, and anything contaminated with blood or OPIM that is not a sharps must be disposed of in biohazard waste.
Sharps containers	All needles and contaminated glass are to be disposed of in sharps containers.     Sharps containers must be impervious, puncture resistant, and rigid to eliminate the potential of physical injury.     All needles and lancets as well as contaminated glass slides, tubes, and glass pipettes.
Regular Waste	All other waste not sharps or considered biohazard.     Paper towels used for handwashing and decontaminating work surfaces     Paper products such as wrappers and lens paper/kim wipes.

#### Personnel Responsibility

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Food, Drink, and Like Substances	<ul> <li>Eating, drinking, smoking, handling contact lenses, or putting anything in one's mouth while in the laboratories where there is a reasonable likelihood of occupational exposure is prohibited.</li> <li>Chewing gum is acceptable, however, it must be placed in one's mouth prior to entry into the lab.</li> <li>Food and beverages are not to be kept in refrigerators, freezers, shelves, cabinets, counter or bench tops or other areas designated as work areas by the laboratory or where blood or other potentially infectious materials are present or may be present.</li> </ul>		
Cosmetics, Hair, Beards, and Jewelry	<ul> <li>Application of cosmetics in the MLS biohazard lab is prohibited. Hand cream is not considered a cosmetic and is permitted.</li> <li>Hair longer than chin length must be secured back to prevent it from contact with contaminated materials and away from moving equipment such as centrifuges.</li> <li>Jewelry or flowing scarves that can become caught in equipment or hang into infective materials need to be removed prior to working in the lab.</li> <li>Men with beards should observe the same precautions provided for long hair. Long beards are dangerous because they can get caught in moving equipment. All beards are sources of bacterial contamination.</li> </ul>		

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Personal Property	Backpacks must be stored either in the shelves on the south side of the MLS laboratory or in the student's respective learning community.  Personal electronic device (e.g., cell phone, laptop computer) use by students is not allowed in the MLS biohazard lab. Personal electronic devices may be kept in backpacks stored in their designated area in the lab.  Computers with keyboards/mice are available at every lab bench station for student use.  Instructor's may, at times, use personal electronic devices in areas away from sample testing in order to facilitate teaching.
Hygiene	Students must maintain proper hygiene while in attendance in the MLS laboratory. This includes, but is not limited to:  • Showering/bathing daily  • Maintaining clean, neat hair  • Using personal care products (e.g. deodorant, toothpaste)  • Fragrant products such as perfume, cologne, other strongly scented products, and essential oils are not to be used in the MLS laboratory.

CLOTHING/AT	TIRE
Clothing	Proper clothing is essential while working in the laboratory. The dress code for the laboratory is casual: jeans/pants/scrubs are all OK. Absolutely no shorts. Dresses are allowed provided they cover the entire leg (see clearance guideline below) and are worn with socks and appropriate shoes.  Clothing must be clean, neat, and in good repair.  Clothing must fit appropriately.  Legs must be completely covered in the laboratory.  No skin may show around ankle area.  Pants must not have any holes.  Pants or dresses may not drag on the floor when in the lab. Dresses and pants should have 1 to 1.5 inches of clearance from the floor.
Footwear	<ul> <li>Shoes should be comfortable, rubber-soled, and cover the entire foot, including the toe, heel, and instep. Clog-style shoes are not appropriate footwear, even if they have a heel strap.</li> <li>Canvas shoes are not recommended as they may absorb chemicals and infectious fluids. Leather, vinyl, or synthetic fluid-impermeable material is suggested.</li> </ul>

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#### CHEMICAL SAFETY

#### General

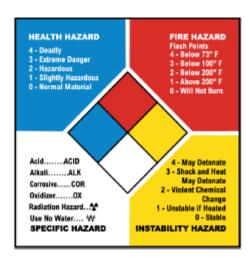
- Students will be informed as to any hazards associated with chemicals used for laboratory tasks.
- Always add acid to water
- Never smell a chemical directly. Vapors should be wafted toward the nose if necessary.
- Safety Data Sheets for all chemicals are kept in the SDS binder in the Safety Cabinet in the MLS Biohazard lab.
- All chemicals must be properly labeled. Primary containers must be labeled according to the Globally harmonized System (GHS) of classification.
   Secondary containers may either be labeled according to GHS regulations or by the National Fire Protection Agency (NFPA) regulations.

Note: It is a direct OSHA violation to re-label primary containers.

#### NFPA labeling

Department of Transportation requirement for shipping chemicals.

- Color coded diamond with four quadrants
  - Blue: Health hazard
    - Red: Fire hazard
    - o Yellow: Reactivity hazard
    - White: Indicates water reactivity, radioactivity, biohazards, or other special hazards.
- Numbers are used in the upper three quadrants to signal the degree of emergency
  - o A numerical scale of 0 to 4 is used
    - 0 = no unusual hazard
    - 1 = minor hazard
    - 2 = moderate hazard
    - o 3 = severe hazard
    - 4 = extreme hazard



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#### GHS

United Nations Globally Harmonized System of Classification and Labeling of Chemicals.

- · Chemical Labeling requirements include:
  - Product Identifier, Supplier Identification, Precautionary, Hazard Pictograms, Signal Word-severity of hazard, Hazard Statements, Precautionary statements.
  - Pictograms included in chart below.



#### FIRE SAFETY and EVACUATION

#### Fire Safety/ Evacuation

All students receive safety training each semester they are enrolled in a MLS laboratory course, including summer session. Staff/Faculty/GTA's receive safety training upon hire. The following fire safety information is included in the training:

- Location of fire extinguishers
- Location of fire pull pox
- Location of all exits
- Map of floor plan with exits and evacuation routes

In addition, evacuation routes and designated storm shelter areas is covered.

Open flames are prohibited in the MLS biohazard lab, including the use of Bunsen burners.

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#### REFERENCES

- CLSI. Clinical laboratory safety, approved guideline third edition. CLSI document GP17-A3. Wayne, PA: Clinical and Laboratory Standards Institute; 2012.
- OSHA. Occupational Safety and Health Standards Toxic and Hazardous Substance, Bloodborne pathogens, standard 1910.1030. [Internet] Washington, DC: [Updated 2017 Sept 18] Available from www.OSHA.gov

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#### APPENDIX 3: Technical and Academic Standards for matriculation, Progression, and Graduation



#### Technical Standards for Matriculation, Progression, and Graduation for all SMHS Students

Section: 3

Policy number: 3.11

Responsible Office: Student Affairs and Admissions

Issued: 08.04.14

Latest Review (Bylaws): 03.21.23

Latest Approval (Faculty Council): 07.2023

#### **Policy Statement**

All graduates of this institution use professional knowledge, skills, and attitudes in order to function in a wide variety of settings and render a wide spectrum of patient care. To accomplish this, students, must meet (with or without accommodations) specified technical standards to matriculate, to progress through the curriculum, and to complete the graduation requirements. This policy describes the broadly defined technical standards expected of University of North Dakota School of Medicine & Health Sciences (UND SMHS) students.

#### Reason for POLICY

The technical standards are designed to ensure the graduation of skilled, well-rounded, and appropriately educated scientists and healthcare providers. Each program and department within the UND SMHS may have additional technical standards specific to the requirements of the program.

#### SCOPE of POLICY

This policy applies to:

VDeans, Directors, and Department Heads VManagers and supervisors

VFaculty VStaff

VStudents Others:

\_\_\_\_

#### WEB SITE REFERENCES

Policy Office: http://www.med.und.edu/policies/index.cfm

Responsible Office: https://med.und.edu/admissions/student-affairs-admissions/index.html

#### **DEFINITIONS**

Matriculate	The enrollment status of a student at the UND SMHS.		
Technical Standards	Technical standards required for completion of biomedical, clinical and		
	translational sciences, and health professions degrees consist of certain		
	minimum essential abilities and characteristics to ensure that applicants		
	for admission, progression, and graduation are able to complete the		
	entire course of study and participate fully in all aspects of education,		
	with or without reasonable accommodation.		



#### **RELATED INFORMATION**

Biomedical	https://med.und.edu/biomedical-sciences/graduate-studies.html
Sciences (MS, PhD)	
Clinical and	https://und.edu/programs/clinical-translational-science-phd/index.html
Translational	
Science (MS, PhD)	
Indigenous Health	https://med.und.edu/education-training/indigenous-health/
(PhD)	
Medicine (MD)	https://med.und.edu/index.html/
Medical	
Laboratory Science	
& Histotechnology	https://med.und.edu/medical-laboratory-science/index.html/
(BS, MS, certificate	
programs)	
Occupational	https://med.und.edu/occupational-therapy/
Therapy (OTD)	
Physical Therapy	https://med.und.edu/physical-therapy/index.html/
(DPT)	
Physician Assistant	https://med.und.edu/physician-assistant/index.html/
Studies (MPAS)	
Public Health	https://med.und.edu/public-health/masters/index.html/
(MPH)	_
Sports Medicine	https://med.und.edu/sports-medicine/index.html/
(BSAT, MSAT)	

#### CONTACTS

General questions about this policy can be answered by your department's administrative office. Specific questions should be directed to the following:

Subject	Contact	Telephone/FAX	Email contact
Policy clarification	Student Affairs & Admissions	777.4221/777.4942	saa@UND.edu
Policy format	Dean's Office	777.2514/777.3527	judy.solberg@UND.edu

#### **PROCEDURES**

When a student's ability to perform a technical standard is not met, the student must demonstrate alternative means and/or abilities to perform the specified activity.

- Matriculation: Each academic program within the SMHS maintains admissions standards and procedures that
  must be fulfilled prior to being accepted into a degree-granting program. Each program within the SMHS
  publishes these standards on their websites. These standards are set to describe minimal criteria needed to
  successfully complete the degree. Students should refer to these websites and work with individual academic
  coordinators to best prepare themselves for matriculation. Students should demonstrate the potential to meet
  the expected technical abilities listed in the table below prior to matriculation.
- 2. Progression: Each academic program within the SMHS maintains minimal Technical Standards (See table below), as judged by faculty members, examinations, and other measurements of performance required for a student to continue to progress through the curriculum. Every effort is made to meet the educational needs of the UND SMHS student. It is the student's responsibility to identify and disclose any disabilities when requesting accommodations to progress through a program. When a student's ability to perform a technical standard is not met, the student must demonstrate alternative means and/or abilities to perform

- the specified activity to progress towards earning a degree. Each clinical, fieldwork, or practicum site may have additional technical standards that might affect a student's ability to complete clinical placements.
- 3. Graduation: Prior to the award of the degree, SMHS students must demonstrate the requisite capacities/abilities in the following broad areas: observation, communication, motor function, intellectual, conceptual, integrative, and quantitative abilities, behavioral and social abilities, and ethics and professionalism. The broad requirements for each program are described below. Further, a student must be able to engage in personal reflection and self-awareness as a mechanism of effective personal growth, development, and lifelong learning.

#### **Technical Standards**

Standard	Health Professions	Biomedical Sciences and
	Students	Clinical and Translational
	Stadents	Science Students
Observation	Students should be able to	Students should be able to
	obtain information from	obtain information from
	demonstrations and	demonstrations and
	experiments in the basic	experiments in the basic
	sciences. These skills require	sciences. These skills
	the use of vision, hearing, and	require the use of vision,
	touch or the functional	hearing, and touch or the
	equivalent.	functional equivalent.
Communication	Students should be able to	Students should be able to
	communicate with others,	communicate with others
	including patients, in order	in order to elicit
	to elicit information, detect	information, detect
	changes in mood, activity,	changes in mood, activity,
	and to establish a	and to establish a collegial
	therapeutic relationship.	relationship. Students
	Students should be able to	should be able to
	communicate via English	communicate in English
	effectively and sensitively	effectively and sensitively
	with others, including	with others, including all
	patients and all members of	members of the scientific
	the healthcare team, both	community, both verbally
	verbally and in writing.	and in writing.
Motor Function	Students should, after a	Students should, after a
	reasonable period of time,	reasonable period of time,
	possess the capacity to	possess the capacity to
	perform a physical	perform physical tasks
	examination and perform	required for experimental
	diagnostic maneuvers.	procedures in the
	Students should be able to	laboratory setting. Such
	execute some motor	tasks may require
	movements required to	coordination of both gross
	provide general care to	and fine muscular
	patients and administer or	movements balance and
	direct the provision of	equilibrium. Students
	emergency treatment of	should be able to provide
	patients. Such actions require	or direct the provision of
	some coordination of both	emergency response to
	gross and fine muscular	unforeseen laboratory

	movements balance and	incidents.
		meidents.
Intellectual Consentual	equilibrium. Students should be able to	Students should be able to
Intellectual, Conceptual,		
Integrative and	assimilate detailed and	assimilate detailed and
Quantitative Abilities	complex information	complex information
	presented in both didactic	presented in both didactic
	and clinical coursework,	and clinical coursework,
	adapt to different learning	adapt to different learning
	environments and	environments and
	modalities, and engage in	modalities, and engage in
	problem solving. Students	problem solving. Students
	are expected to possess the	are expected to possess
	ability to accurately	the ability to accurately
	measure, calculate,	measure, calculate,
	quantify, reason, analyze,	quantify, reason, analyze,
	synthesize, and transmit	synthesize, and transmit
	information.	information.
Behavioral and Social	Students should possess the	Students should possess
Abilities	emotional health required	the emotional health
	for full utilization of their	required for full utilization
	intellectual abilities, the	of their intellectual
	exercise of good judgment,	abilities, the exercise of
	the prompt completion of	good judgment, the
	all responsibilities, and the	prompt completion of all
	development of mature,	responsibilities, and the
	sensitive, and effective	development of mature,
	relationships with patients,	sensitive, and effective
	fellow students, faculty,	relationships with fellow
	and staff. Students should	students, faculty, and staff.
	be able to tolerate	Students should be able to
	physically taxing workloads	tolerate physically taxing
	and to function effectively	workloads and to function
	under stress. They should	effectively under stress.
	be adaptable and resilient	They should be adaptable
	to changing environments.	and resilient to changing
	Compassion, integrity,	environments.
	concern for others,	Compassion, integrity,
	interpersonal skills,	concern for others,
	respectability, interest, and	interpersonal skills,
	motivation are all personal	respectability, interest, and
	qualities that are expected	motivation are all personal
	during the education	qualities that are expected
	process.	during the education
		process.
Ethics and Professionalism	Students should demonstrate	Students should demonstrate
	ethical and moral behaviors	ethical and moral behaviors
	commensurate with the role	commensurate with the role
	of a healthcare professional	of a scientist in all
	and researcher in all	interactions with faculty,
	interactions with faculty,	staff, students, the public,
	staff, students, the public, and	and subjects. The student is
	patients. The student is	expected to understand the
	expected to understand the	legal and ethical aspects of

legal and ethical aspects of	their profession and function
their profession and function	within the law and ethical
within the law and ethical	standards required of the
standards required of the	profession.
profession.	

#### RESPONSIBILITIES

Student	It is the responsibility of the student to request necessary
	accommodations through university procedures.

#### **DISABILITY SERVICES**

Disability Services for Students at UND SMHS assists qualifying students who have a physical or mental impairment that substantially limits one or more major life activities, such as learning, seeing, hearing, speaking, walking, or breathing. Presence of disability alone does not necessarily qualify an individual for accommodations. The individual must experience functional limitation(s) caused by the disability that significantly limit or prevent access to the University's programs, services, or facilities.

Determination for accommodations is made on a case-by-case basis and is accomplished through discussion with the student and review of the disability documentation. Note that if accommodations are identified, they cannot be provided retroactively. For more information on the process to determine eligibility or to discuss accommodations, applicants or enrolled students in the biomedical sciences, clinical and translational sciences, or health professions programs should contact Disability Services for Students. Disability Services for Students is the campus resource for confidential discussion and support regarding reasonable accommodations.

Disability Services for Students (DSS) McCannel Hall Room 190 2891 2<sup>nd</sup> Ave N. Stop 9040 Grand Forks, ND 58202 – 9040 P 701.777.2664 F 701.777.4583 UND.dss@UND.edu



#### **STUDENT SIGNATURE PAGE**

The UND HT Program Student Orientation Handbook contains policies, procedures and processes that HT students must comply with in order to be successful academically and professionally. It is the responsibility of the UND HT program to ensure that students are aware of these policies, procedures and processes, which is accomplished through completion of this signature page.

initial each	n item as acknowledgement:	
Initials	Signature Page Item	
1.	I have read, understand, am aware of, and agree to comply with the policies and processes as defined in the UND HT Program Student Orientation Hand understand that the policies, procedures, and processes in the handbook are modification and that I am responsible for updates as they occur.	book. I
2.	I have read and understand that I must be able to meet the UND HT Program Functions and SMHS Technical & Academic Standards in order to be successacademic and clinical laboratory. I understand that if I am unable to meet the Program Essential Functions or SMHS Standards, I must inform UND HT Program for the determine if accommodation options are available that continuation in the program.	ssful in the e UND HT ogram
3.	. I am aware of the UND SMHS 'Participation in Education as it Relates to Stupolicy and understand that if I have a condition (injury, infection, immunocom status, environmental disease) that may negatively impact myself, fellow stufaculty or patients, I have a professional obligation to inform and work with UProgram faculty/staff immediately.	promised dents, staff,
4.		my student files fo
5.	I have read the Dept. of MLS safety and biohazard standards and have been about the blood borne pathogens exposure control plan regulations and polic understand that I am responsible for compliance with these policies and star	cies. I
6.	I understand that photos and/or videos taken during HT program coursework may be utilized for educational and/or promotional purposes and give conser be utilized in them. If I do not want my image to be utilized in such photos ar must communicate that request in writing to the UND HT Education Coordinate.	nt for my image to nd/or videos, I
7.		
	Clearly Print Your Full Name	Your 3 Initials
	Signature	Date