WESTERN COLLEGE ALLIANCE FOR MEDICAL LABORATORY SCIENCE (WCAMLS)
APPLICATION TO THE CLINICAL YEAR

DIRECTIONS: In order for your application to be considered a complete application must be received.

Required Application Materials:
1) An UNOFFICIAL transcript of all college level coursework MUST accompany this application.
2) One letter of reference from your MLS/CLS academic advisor is required (no other reference letters are necessary).
3) Submit proof of your initiation of the criminal background check (receipt of payment).
4) Critical Analysis Passage (Separate piece(s) of paper).
5) Personal Statement (Separate piece(s) of paper).

Application deadline: November 1, 2017 (must be received by the UND MLS program)

Academic Requirements needed for Admission to the UND MLS Professional Program
• A cumulative GPA of 2.800 on a scale of 4.000
• No more than one grade of D in any math or science courses.
• No standing D’s in any MLS/CLS course (or equivalent course)
• All pre-requisites must be successfully completed before advancement into the summer session.
• A maximum of two science courses repeated.
• A maximum of one MLS course repeated

An evaluation of your application and recommendation for acceptance or non-acceptance will be completed by the UND MLS Academic Standards Committee. You will be notified by email of acceptance or non-acceptance by December 1, 2017. Program acceptance is a competitive process with a limited number of positions available annually.

In addition to acceptance to the UND MLS program, all students must meet requirements established for admission to The University of North Dakota.

IN THIS BOX PRINT OR TYPE IN YOUR INFORMATION

Full Name (List as First Name, Middle Initial, Last Name)________________________________________
Address (include City/State/Zip)____________________________________________________________________
*School E-mail Address ________________________________________ Cell Phone# ____________________________
*Please list school email.
Emergency Contact Name __________________________ Emergency Contact Phone # _________________________
Address (include City/State/Zip)____________________________________________________________________

I understand I will enter The University of North Dakota summer curriculum as a WCAMLS student. I will earn my degree from my home institution (List Institution __________________________)
(City)____________________, (State)____________ and receive a certificate in Medical Laboratory Science from The University of North Dakota.
I have/will have earned a BS degree in _____________________________ (List Field of study), (Mth______/Yr______/).

EDUCATION HISTORY

<table>
<thead>
<tr>
<th>Name of Institution</th>
<th>Attendance Date (Years)</th>
<th>Address: (City/State)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School:</td>
<td></td>
<td></td>
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<tr>
<td>Univ/College:</td>
<td></td>
<td></td>
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<tr>
<td>Degree Earned:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Univ/College:</td>
<td></td>
<td></td>
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<tr>
<td>Degree Earned:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree Earned:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- GPA (required): Overall________

If your overall GPA is less than a 2.800 cumulative you will need to complete a petition form (http://www.med.und.edu/medical-laboratory-science/_files/und-mls-professional-program-petition.pdf) and submit it with this application for consideration to the MLS Academic Standards Committee.

CLINICAL PRACTICUM

Using the clinical affiliation site list (http://www.med.und.edu/medical-laboratory-science/mls-clinical-affiliates.cfm), indicate your 1st, 2nd, and 3rd choice. Note that sites occasionally request to become inactive for any given year. Every effort will be made to honor one of your three choices but you may be assigned a site that is not one of your top three choices. If your application is received AFTER NOVEMBER 1, you will no longer qualify for the initial site selection process but you will be placed at a program clinical affiliate.

<table>
<thead>
<tr>
<th>Clinical Affiliate Site Name</th>
<th>City, State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choice 1</td>
<td></td>
</tr>
<tr>
<td>Choice 2</td>
<td></td>
</tr>
<tr>
<td>Choice 3</td>
<td></td>
</tr>
</tbody>
</table>
Essential Functions represent the non-academic requirements of the program that all students must master to successfully participate in the program and become employable.

The UND School of Medicine has defined Technical Standards for Matriculation, Progression, and Graduation (http://www.med.und.edu/policies/_files/docs/technical-standards.pdf)

All students, and therefore, all applicants are expected to:

**Vision:** be able to read and interpret charts, graphs, and labels; read and interpret instrument panels and printouts, discriminate colors, hue, shading or intensity and clarity, read microscopic material and record results.

**Speech and Hearing:** be able to communicate effectively and sensitively in order to assess non-verbal communication; adequately transmit information; follow verbal or written communication.

**Motor Functions:** possess all skills necessary to carry out diagnostic procedures; manipulate tools, instruments and equipment; perform phlebotomy safely and accurately; travel to a clinical site for practical experience.

**Behavioral Requirements:** possess the emotional health required for full utilization of applicant's intellectual abilities; be able to recognize emergency situations and take appropriate action.

**Physical Requirements:** be able to complete fine repetitive hand movement; twist and bend; handle flammable and infective materials; handle hazardous chemicals and electrical equipment, lift 10 lbs.; maintain prolonged sitting or standing positions; maintain concentration with distracting noises and close proximity to fellow workers; tolerate unpleasant odors, work in building either above or below ground level; work in an environment without windows; and perform keyboarding.

**Critical Thinking:** be able to appropriately perform complex interpretative testing.

**Professionalism:** be able to maintain a professional attitude, appearance and patient confidentiality.

Do you feel you meet **ALL** Medical Laboratory Science essential functions listed above?  

Yes / No
CRIMINAL BACKGROUND CHECK

A Criminal Background Check is required of each student prior to admission into the MLS program. The UND School of Medicine and Health Sciences has an agreement with Verified Credentials, Inc. for the criminal background check. You must complete the UND background check and applicants are responsible for the cost of approximately $45. You must submit proof of background check submission (receipt of payment) with the complete application.

Steps for completing the UND Verified Credentials – Scholar Background Check:
1. Go to: http://scholar.verifiedcredentials.com/UND
2. First time users: Enter in the appropriate school code:
   USA Citizen School Code: PPJJX-74494  Canada Citizen School Code: VWJVG-84848
3. If you are a new applicant, you must create an account. When creating the account please use an email address that you access regularly as you will be asked to renew your background check (for an additional fee) when you arrive on-campus for classes in the summer session.
4. Once you access the system make sure that you are completing the University of North Dakota – Medical Laboratory Science Program Background Check. If you are unsure what background check you are completing, make sure that you are under the “Home” tab and enter in the code in the box.
5. Proceed through the background check requirements and submit payment. You must submit proof of background check payment (receipt of payment) with this application.

Additional application questions
1. Have you ever been reprimanded, placed on probation, disciplined, suspended, sanctioned, or dismissed from any college, university, graduate school, professional school (including any other MLT/MLS program), professional organization or licensing agency for any reason? Yes / No
   If the answer to #1 is yes, you must provide a letter or other documentation from the college, university, graduate school, professional school, professional organization or licensing agency describing the events which led to your being disciplined including the sanction imposed. In addition to the documentation from the college, university, graduate school, professional school, professional organization, or licensing agency, you must provide your own personal explanation on a separate sheet describing the events that led to you being disciplined. Failure to submit this documentation in a timely manner may cause your admission status to the Medical Laboratory Science program to be denied or withdrawn.

2. Have you ever been arrested for, charged with, pled guilty to, been convicted of or adjudicated guilty of, or paid any fines or penalties as a result of any violation of any law, ordinance, criminal or military law? You may omit minor traffic violations such as speeding tickets and parking violations. You may not omit serious traffic violations such as driving under the influence of alcohol or drugs, reckless driving, driving without insurance, damage to property, or driving with a suspended or revoked license. Yes / No

3. Have you ever been accused or charged in a court-martial proceeding or received a less than an honorable discharge from any branch of the armed services of the United States of America? Yes / No
   If the answers to either of the above question 2 or 3 are yes, you must provide records from the court or military office documenting the charge and the disposition of that charge, including any sanctions imposed. In addition to the documentation from the court or military office, you must provide your own personal explanation on a separate sheet describing the events that led to the charge(s). Your file will not be considered complete and it will not be reviewed until this documentation has been submitted. Failure to submit this documentation in a timely manner may cause your admission status to the Medical Laboratory Science program to be denied or withdrawn.
PLEASE COMPLETE BOTH PART A & PART B OF SUPPLEMENTAL APPLICATION MATERIALS AND SUBMIT WITH YOUR APPLICATION.  (PLEASE ANSWER A AND B ON SEPARATE SHEETS OF PAPER)

PART A: CRITICAL ANALYSIS PASSAGE
Directions: On a separate piece of paper (place your name at the top), answer the following questions in your own words, based ONLY on the procedure below. Use complete sentences. A word-processed response is expected. DO NOT use sources (books, websites, people, etc.) other than the passage/information shared below.

MYELOID TO ERYTHROID (M:E) RATIO PROCEDURE
1) On 100x magnification, observe the bone marrow sample.
2) Begin counting cells, identifying each as either “myeloid”, “erythroid”, or “neither” as follows:
   MYELOID: segmented neutrophil, metamyelocyte, band neutrophil, myelocyte, eosinophil, basophil
   ERYTHROID: orthochromic normoblast, polychromatophilic normoblast, basophilic normoblast
   NEITHER: mature RBC, monocyte, lymphocyte, plasma cell
3) Tally the number of Myeloid cells and Erythroid cells as you go. DO NOT include cells in the Neither category in your count (skip them). Keep counting until you have reached 200 total Myeloid and Erythroid cells. Make sure to count in a systematic way, so that cells are not counted twice or missed.
4) Once 200 total Myeloid and Erythroid cells have been counted, transcribe your results into a ratio. The Myeloid (M) number should be listed first, and the Erythroid (E) number should be second. The “E” number should always be 1. Round all values to the nearest whole number, unless the value is below one, then round to the nearest tenth. See the following for example:

<table>
<thead>
<tr>
<th># of Myeloid Cells Counted (“M”)</th>
<th># of Erythroid Cell Counted (“E”)</th>
<th>Final (Reportable) M:E Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>162</td>
<td>38</td>
<td>4:1</td>
</tr>
</tbody>
</table>

5) The normal reference interval for an adult M:E Ratio is: 2:1 – 4:1. Increased M:E ratios may be seen in infection or chronic myelogenous leukemia. Decreased M:E ratios may be seen normoblastic hyperplasia.

QUESTIONS:
1. Explain what, if anything, might happen if the technologist performing a M:E Ratio counted cells using 10x magnification, instead of the 100x magnification stated in the procedure.
2. Calculate the M:E Ratio for a sample that gave the following counts on 100x. Record results below.

<table>
<thead>
<tr>
<th>Cells Counted</th>
<th>Segmented neutrophil</th>
<th>Basophil</th>
<th>Monocyte</th>
<th>Basophilic Normoblast</th>
<th>Mature RBC</th>
<th>Orthochromic Normoblast</th>
<th>Myelocyte</th>
</tr>
</thead>
<tbody>
<tr>
<td>62</td>
<td>19</td>
<td>27</td>
<td>32</td>
<td>104</td>
<td>57</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

Myeloid Cells: ___________  Erythroid Cells: ___________  Final M:E Ratio: _______________

3. Assuming the results from question 2 came from an adult male, would his M:E ratio be increased, decreased, or normal when compared to the normal reference interval? Would you believe that this result came from a patient with Chronic Myelogenous Leukemia? Why or Why not?

4. A person performing a M:E Ratio did everything correctly, except he/she counted all lymphocytes as orthochromic normoblasts. Would the final M:E Ratio be accurate? How might the final M:E Ratio result be impacted in this situation?

5. A person performing a M:E Ratio did everything correctly, except he/she counted 100 total cells. How might the final M:E Ratio result be impacted in this situation?
Part B: SELF ASSESSMENT

“Why Medical Laboratory Science?” It is a simple, yet basic question that relates to each student in the MLS academic program. The following questions are designed to cause you to reflect personally on the MLS profession and assist the Admission Committee to become better acquainted with you. Please use your own words. Responses are expected to exhibit a college level of writing which includes correct spelling, grammar, sentence structure, and punctuation. The self-assessment piece is expected to be submitted word-processed while still answering each of the following questions individually.

1. Why do you want to become a medical laboratory scientist?
2. What personal, positive qualities do you have that you feel would be an asset to you in this profession?
3. What reservations, if any, do you have concerning this profession?

Signature__________________________________________________ Date______________________

The UND MLS program is accredited by the National Accrediting Agency for CLS (NAACLS)
5600 N River Rd Suite 720, Rosemount, IL 60018-5119

Equal Opportunity Statement
It is the policy of the University of North Dakota that no person in the United States shall be discriminated against because of race, religion, age, color, gender, disability, national origin, creed, sexual orientation, gender identity, marital status, veteran’s status, or political belief or affiliation and the equal opportunity and access to facilities shall be available to all. This policy is particularly applicable in the admission of students in all colleges, and in their academic pursuits. It also is applicable in the University-owned or University-approved housing, food services, extracurricular activities and all other student services. It is a guiding policy in the employment of students either by the University or by outsiders through the University and in the employment of faculty and staff. Concerns regarding Title IX, Title VI, Title VII, ADA, and Section 504 may be addressed to Donna Smith, Director of Equal Employment Opportunity/Affirmative Action and Title IX Coordinator at 701-777-4171, und.affirmativeactionoffice@und.edu or the Office for Civil Rights, U.S. Dept. of Education, 500 West Madison, Suite 1475, Chicago, IL 60611 or any other federal agency.