Medical Laboratory Science, B.S.

Program Description (p. 1)
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Program Description
Dixie State University offers a course of study leading to a Bachelor of Science in Medical Laboratory Science degree. During the first two years or pre-professional phase of study, a student completes a minimum of 58 semester hours of coursework. The coursework includes but is not limited to: a) general education courses, including a statistic course; b) biology requisites that must include a course in microbiology and courses in human anatomy and physiology; and c) cognates in chemistry. After completion of the pre-professional phase of study and, through a competitive application process, a student may be selected to enter the final two years of study or the MLS professional program to which one cohort of 12-15 students is admitted per year. Admitted students spend three semesters completing MLS-specific courses on the DSU campus. Upon successful completion of these courses, students are then assigned to one or more program-affiliated medical laboratories to complete a semester-long clinical internship. Program graduates are eligible to take the Medical Laboratory Scientist (MLS) national board certification examination offered by the American Society for Clinical Pathology (ASCP).

Certification
Graduates are eligible to take the Medical Laboratory Scientist (MLS) national certification examination offered by the American Society for Clinical Pathology (ASCP).

Accreditation
The Medical Laboratory Science program is accredited by the National Accrediting Agency for Clinical Laboratory Science (NAACLS). NAACLS can be contacted at:

NAACLS
5600 North River Road, Suite 720
Rosemont, IL 60018
Phone: 773-714-8880
www.naacls.org (http://www.naacls.org)

Admission Requirements
For admission requirements into the Medical Laboratory Science program, visit the website (https://health.dixie.edu/mls/program-admissions) (following this link will take you out of the University Catalog).

Program Curriculum
120 credits

DSU General Education Requirements
All DSU General Education requirements must be fulfilled. A previously earned degree may fulfill those requirements, but courses must be equivalent to DSU’s minimum General Education standards in American Institutions, English, and Mathematics.

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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tr>
<td>General Education Core Requirements (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)</td>
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<tr>
<td>English</td>
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<td>Mathematics</td>
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<td>American Institutions</td>
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<td>Life Sciences</td>
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<td>Physical Sciences</td>
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<td>Laboratory Science</td>
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<td>Fine Arts</td>
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### Social & Behavioral Sciences

**Exploration**

<table>
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<td></td>
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### MLS Prerequisite Courses

<table>
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<tr>
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<th>Hours</th>
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<tbody>
<tr>
<td>BIOL 1610 &amp; BIOL 1615</td>
<td>Principles of Biology I (LS) and Principles of Biology I Lab (LAB)</td>
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<tr>
<td>BIOL 2060 &amp; BIOL 2065</td>
<td>Principles of Microbiology and Principles of Microbiology Lab</td>
<td>4</td>
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<tr>
<td>BIOL 2320 &amp; BIOL 2325</td>
<td>Human Anatomy and Human Anatomy Lab</td>
<td>5</td>
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<tr>
<td>BIOL 2420 &amp; BIOL 2425</td>
<td>Human Physiology and Human Physiology Lab</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1110 &amp; CHEM 1115</td>
<td>Elementary General/Organic Chemistry (PS) and Elem General/Organic Chemistry Lab (LAB)</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 1120 &amp; CHEM 1125</td>
<td>Elem Organic / Bio Chemistry and Elem Organic/Bio Chemistry Lab</td>
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<tr>
<td>COMM 1020 or COMM 2110</td>
<td>Public Speaking or Interpersonal Communication (SS, GC)</td>
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<tr>
<td>MATH 1040 or STAT 2040</td>
<td>Introduction to Statistics (MA) or Business Statistics</td>
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Please see the department website (https://health.dixie.edu/mls/program-admissions) for information on admission to the Medical Laboratory Science program.

### MLS Core Requirements

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<td>Clinical Immunology</td>
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<td>MLS 3314</td>
<td>Diagnostic Microbiology I</td>
<td>5</td>
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<td>MLS 3330</td>
<td>Clinical Chemistry</td>
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<td>MLS 3355</td>
<td>Research Seminar</td>
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<td>MLS 3850</td>
<td>Urinalysis and Body Fluids</td>
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<td>MLS 4110</td>
<td>Laboratory Management/Edu</td>
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<td>MLS 4200</td>
<td>Clinical Chemistry and Molecular Diagnostics</td>
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<td>MLS 4300</td>
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<tr>
<td>MLS 4320</td>
<td>Hemostasis</td>
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</tr>
<tr>
<td>MLS 4330</td>
<td>Clinical Chemistry Practice (ALPP)</td>
<td>4</td>
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<tr>
<td>MLS 4400</td>
<td>Immunohematology II</td>
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<tr>
<td>MLS 4410</td>
<td>Blood Banking Practice (ALPP)</td>
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<td>MLS 4414</td>
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<td>Clinical Hematology Practice</td>
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<tr>
<td>MLS 4600</td>
<td>Diagnostic Microbiology II</td>
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### Graduation Requirements

1. Complete a minimum of 120 college-level credits (1000 and above)
2. Complete at least 40 upper-division credits (3000 and above)
3. Complete at least 30 upper-division credits at DSU for institutional residency.
4. Cumulative GPA 2.0 or higher.
5. Complete MLS professional program requirements
   a. Meet Essential Requirements (https://health.dixie.edu/mls/program-admissions)
   b. 80% or higher for all MLS courses
c. Cumulative GPA 3.0 or higher in MLS core courses.
d. Complete clinical training

**Graduation Plan**

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<thead>
<tr>
<th>Course</th>
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<th>Hours</th>
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<tbody>
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<tr>
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<td>First Year Recommended Elective</td>
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<td>Introduction to Statistics (MA)</td>
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<td>General Elective</td>
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<td>Elementary General/Organic Chemistry (PS) and Elem General/Organic Chemistry Lab (LAB)</td>
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<td><strong>2nd Year</strong></td>
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<td>General Education (American Institutions) (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)</td>
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<td><strong>3rd Year</strong></td>
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<tr>
<td>MLS 3312</td>
<td>Clinical Immunology</td>
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<td>Diagnostic Microbiology I</td>
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<td><strong>Spring Semester</strong></td>
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4th Year

**Fall Semester**

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**Upper Division MLS Course**

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**Spring Semester**

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<tr>
<td>MLS 4330</td>
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<td>MLS 4410</td>
<td>Blood Banking Practice (ALPP)</td>
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<td>MLS 4414</td>
<td>Clinical Microbiology Practice (ALPP)</td>
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<tr>
<td>MLS 4423</td>
<td>Clinical Hematology Practice</td>
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| Hours       | 15                                          |

| Total Hours | 120                                         |

**Medical Laboratory Science Program Learning Outcomes:**

At the successful conclusion of this program, students will be able to:

1. Perform a full range of testing encompassing the pre-analytical, analytical, and post-analytical components of contemporary laboratory services in areas that include clinical chemistry, hematology/hemostasis, immunology, immunohematology/transfusion medicine, microbiology, urine and body fluid analysis, and emerging diagnostics.

2. Apply management concepts and leadership skills, taking responsibility for analysis and decision-making, and the effective communication of valid test information wherever laboratory testing is researched, developed or performed.

3. Participate in the development, implementation, and evaluation of test systems and interpretive algorithms.

4. Employ relevant experience in research design and practice.

5. Demonstrate ethical and moral attitudes, principles of lawful conduct, and commitment to continuing professional development necessary for gaining and maintaining the confidence of patients, professional associates, and the community.

6. Adhere to safety, governmental regulations and standards as applied to medical laboratory practice.

7. Project an image of professionalism, respect the feelings and needs of others, protect the confidence of patient information, and never allow personal concerns and biases to interfere with the welfare of patients nor the work of colleagues and members of the healthcare team caring for patients.