### UNIVERSITY CORE AND GRADUATION REQUIREMENTS

#### UNIVERSITY CORE REQUIREMENTS

<table>
<thead>
<tr>
<th>Requirements</th>
<th>#Classes</th>
<th>Hours</th>
<th>Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Religion Cornerstones</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teachings &amp; Doctrine, Book of Mormon</td>
<td>1</td>
<td>2.0</td>
<td>Rel A 275</td>
</tr>
<tr>
<td>Jesus Christ &amp; the Everlasting Gospel</td>
<td>1</td>
<td>2.0</td>
<td>Rel A 250</td>
</tr>
<tr>
<td>Foundations of the Restoration</td>
<td>1</td>
<td>2.0</td>
<td>Rel C 225</td>
</tr>
<tr>
<td>The Eternal Family</td>
<td>1</td>
<td>2.0</td>
<td>Rel C 200</td>
</tr>
<tr>
<td><strong>The Individual and Society</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Citizenship</td>
<td>1–2</td>
<td>3–6.0</td>
<td>from approved list</td>
</tr>
<tr>
<td>Global &amp; Cultural Awareness</td>
<td>1</td>
<td>3.0</td>
<td>from approved list</td>
</tr>
<tr>
<td><strong>Skills</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effective Communication</td>
<td>1</td>
<td>3.0</td>
<td>from approved list</td>
</tr>
<tr>
<td>First-Year Writing</td>
<td>1</td>
<td>3.0</td>
<td>Engl 316 recommended</td>
</tr>
<tr>
<td>Adv Written &amp; Oral Communication</td>
<td>1</td>
<td>3.0</td>
<td>from approved list</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>0–1</td>
<td>0–3.0</td>
<td>Stat 121 recommended</td>
</tr>
<tr>
<td>Languages of Learning (Math or Language)</td>
<td>1–4</td>
<td>3–20.0</td>
<td>Stat 121 recommended</td>
</tr>
</tbody>
</table>

#### Arts, Letters, and Sciences

<table>
<thead>
<tr>
<th>Requirements</th>
<th>#Classes</th>
<th>Hours</th>
<th>Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civilization 1 and 2</td>
<td>2</td>
<td>6.0</td>
<td>from approved list</td>
</tr>
<tr>
<td>Arts</td>
<td>1</td>
<td>3.0</td>
<td>from approved list</td>
</tr>
<tr>
<td>Letters</td>
<td>1</td>
<td>3.0</td>
<td>from approved list</td>
</tr>
<tr>
<td>Scientific Principles &amp; Reasoning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biological Science</td>
<td>2</td>
<td>5.0</td>
<td>MMBio 240* and PDBio 120*</td>
</tr>
<tr>
<td>Physical Science</td>
<td>2</td>
<td>7.0</td>
<td>Chem 105*, Phscs 105 recom.</td>
</tr>
<tr>
<td>Social Science</td>
<td>1</td>
<td>3.0</td>
<td>from approved list</td>
</tr>
</tbody>
</table>

#### Core Enrichment: Electives

<table>
<thead>
<tr>
<th>Requirements</th>
<th>#Classes</th>
<th>Hours</th>
<th>Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion Electives</td>
<td>3–4</td>
<td>6.0</td>
<td>from approved list</td>
</tr>
<tr>
<td>Open Electives</td>
<td>Variable</td>
<td>Variable</td>
<td>personal choice</td>
</tr>
</tbody>
</table>

#### GRADUATION REQUIREMENTS:

- Minimum residence hours required: 30.0
- Minimum hours needed to graduate: 120.0

### PROGRAM REQUIREMENTS (74 total hours)

#### Admittance Requirements:

1. Students must complete the following courses (13 hours total) before applying to the program: Chem 105; MMBio 121, 240, 261.
2. Application deadlines are March 1 for fall semester and October 1 for winter semester admittance.

#### Complete the following program prerequisites:

- Chem 105* General College Chemistry 4.0
- MMBio 121 Molecular Biology 3.0
- MMBio 240* Molecular Biology 3.0
- MMBio 241 Molecular & Cellular Biology Lab 1.0
- MMBio 261 Infection and Immunity 3.0
- PDBio 220 Human Anatomy (with lab) 3.0
- PDBio 305 Human Physiology (with lab) 4.0
- PWS 340 Genetics 3.0
- MMBio 496R Clinical Experience 9.0V

#### Complete the following program courses:

- Eng 316. Stat 121.

#### Recommended Courses

- MMBio 392 Hematology 2.5
- MMBio 393 Immunohematology & Coagulation Theory 2.5
- MMBio 394 Practical Hematology 2.0
- MMBio 395 Practical Immunohematology & Coagulation Theory 2.0
- MMBio 407 Clinical Microbiology 4.0
- MMBio 417 Medical Parasitology 3.0
- MMBio 422 Pathophysiology & Lab Diagnosis in Clinical Chemistry 2.5
- MMBio 423 Pathophysiology & Lab Diagnosis in Clinical Chemistry 2.5
- MMBio 424 Diagnostic Techniques in Clinical Chemistry 2.0
- MMBio 425 Diagnostic Techniques in Clinical Chemistry & Molecular Biology 2.0
- MMBio 491 Concept Applications in Laboratory Medicine 1.0

#### Complete an internship experience. During one semester and one term, complete at least two hours from the following:

- MMBio 392 Hematology
- MMBio 393 Immunohematology & Coagulation Theory
- MMBio 394 Practical Hematology
- MMBio 395 Practical Immunohematology & Coagulation Theory
- MMBio 407 Clinical Microbiology
- MMBio 417 Medical Parasitology
- MMBio 422 Pathophysiology & Lab Diagnosis in Clinical Chemistry
- MMBio 423 Pathophysiology & Lab Diagnosis in Clinical Chemistry
- MMBio 424 Diagnostic Techniques in Clinical Chemistry
- MMBio 425 Diagnostic Techniques in Clinical Chemistry & Molecular Biology
- MMBio 491 Concept Applications in Laboratory Medicine

#### Complete an exit interview.

#### Pass the BYU comprehensive exam offered during the clinical experience.

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*These classes fill both University Core and Program Requirements (9 hours overlap)*

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**FOR UNIVERSITY CORE QUESTIONS CONTACT THE ADVISEMENT CENTER**

**FOR PROGRAM QUESTIONS SEE YOUR FACULTY ADVISOR**
Suggested Sequence of Courses:

FRESHMAN YEAR
1st Semester
First-Year Writing or A Htg 100 3.0
Chem 105 4.0
MMBio 121 3.0
MMBio 102 1.0
Quantitative Reasoning*, if needed 0–3.0
Religion Cornerstone course 2.0
Total Hours 13–16.0
2nd Semester
First-Year Writing or A Htg 100 3.0
PDBio 220 3.0
Chem 106 3.0
Chem 107 1.0
Civilization 1 elective 3.0
Languages of Learning elective (recommend Stat 121) 3.0
Religion Cornerstone course 2.0
Total Hours 18.0

SOPHOMORE YEAR
3rd Semester
MMBio 240 (Biological Science) 3.0
MMBio 241 1.0
Civilization 2 elective 3.0
Religion Cornerstone course 2.0
General electives 2.0
Total Hours 15.0
4th Semester
PWS 340 3.0
PDBio elective 3.0
Physical Science elective 3.0
(Remember Phscs 105)
Religion elective (FWSpSu) 2.0
Total Hours 15.0

JUNIOR YEAR
5th Semester
Arts or Letters elective 3.0
PDBio 360 3.0
MMBio 261 3.0
Social Sciences elective 3.0
Religion Cornerstone course 2.0
Total Hours 14.0
6th Semester
MMBio 392 & 394 4.5
MMBio 393 & 395 4.5
MMBio 407 4.0
Religion elective 2.0
Total Hours 15.0
Spring/Summer Term
Arts or Letters elective 3.0
Adv. Written & Oral Communication 3.0
(Recommend Engl 316)
Total 6.0

SENIOR YEAR
7th Semester
MMBio 417 3.0
MMBio 422, 423, 424, 425 9.0
MMBio 491 1.0
Religion elective (FWSpSu) 2.0
Total Hours 15.0
8th Semester
MMBio 496R* (FWSpSu) 1.0
General electives 5.0
Total Hours 6.0

*MMBio 496R must be taken during one semester and one term.

Note: This degree program requires a minimum of 120.0 hours for graduation. Students are encouraged to complete an average of 15 credit hours each semester or 30 credit hours each year, which could include spring and/or summer terms. Taking fewer credits substantially increases the cost and the number of semesters to graduate.

THE DISCIPLINE:
This degree program is for students who desire to practice clinical laboratory science/medical technology in diagnostic laboratories or related options. The program in clinical laboratory science is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (8410 West Bryn Mawr Avenue, Suite 670, Chicago, IL 60631, [773] 714-8880). Program graduates are eligible for National Certification examinations (i.e., ASCP, NCA).

OBJECTIVE:
At career entry, the clinical laboratory scientist/medical technologist will be proficient in performing the full range of clinical laboratory tests in areas such as hematology, clinical chemistry, immunohematology, microbiology, serology/immunology, coagulation, molecular, and other emerging diagnostics, and will play a role in the development and evaluation of test systems and interpretive algorithms. The clinical laboratory scientist/medical technologist will have diverse responsibilities in areas of analysis and clinical decision-making, regulatory compliance with applicable regulations, education, and quality assurance/performance improvement wherever laboratory testing is researched, developed, or performed. The clinical laboratory scientist/medical technologist will also possess basic knowledge, skills, and relevant experiences in:

- Communication to enable consultative interactions with members of the healthcare team, external relations, customer service, and patient education;
- Financial, operations, marketing, and human resource management of the clinical laboratory to enable cost-effective, high-quality, value-added laboratory services;
- Information management to enable effective, timely, accurate, and cost-effective reporting of laboratory-generated information, and;
- Research design/practice sufficient to evaluate published studies as an informed consumer.

CAREERS:
Health Care Agency/Government
Hospital/Medical Center
Health Care Administration
Staff Medical Technologist/ Clinical Laboratory Scientists
Information Systems Management
Health Maintenance Organization
Consultant to Physician
Physician Office Laboratories
Reference/Commercial Laboratories
Veterinary Medicine Laboratory Scientist
Working Abroad
Humanitarian Work
Education
Industry
Research
Diagnostic Molecular Laboratories
Forensic Laboratories

(See faculty advisor for additional career choices.)

HONORARY SOCIETIES AND CLUBS:
The student chapter of the Utah Society for Clinical Laboratory Science provides opportunity for fellowship and professional association.

FINANCING:
An endowed scholarship is available to students in clinical laboratory science. Recipient is selected by CLS faculty after program admission. No application is necessary