

Catalog Year 2017-2018

B.S. Medical Laboratory Science

A Major Academic Plan (MAP) illustrates one way to complete a degree in a recommended number of semesters. Below is an example of an efficient and recommended plan, but actual plans will vary by individual student needs. Program requirements are based on Catalog Year. See page two for a detailed summary of Major, General Education, Elective, and university requirements.

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| --- | --- | --- | --- | --- | --- | --- |
| **Course Subject and Title** | **Cr.** | **Min.**  **Grade** | **\*GE,**  **UU or UM** | **\*\*Sem. Offered** | **Prerequisite** | **Co Requisite** |
| Semester One | | | | | | |
| GE Objective 1: ENGL 1101 English Composition | 3 | C- | GE |  | Appropriate placement score |  |
| GE Objective 5: BIOL 1101 & Lab Biology I | 4 |  | GE | F,S,Su | MATH 1108 | (MATH 1108) |
| GE Objective 5: CHEM 1111 & 1111L Gen Chem and lab | 5 |  | GE | F,S,Su | MATH 1143 or 1147 |  |
| Total | 12 |  |  |  |  |  |
| Semester Two | | | | | | |
| GE Objective 1: ENGL 1102 Critical Reading and Writing | 3 | C- | GE | F,S,Su | ENGL 1101 or equivalent |  |
| GE Objective 6: | 3 |  | GE |  |  |  |
| BIOL 1102 & Lab Biology II | 4 |  |  | F,S | BIOL 1101 |  |
| CHEM 1112 & 1112L General Chemistry II and lab | 4 |  |  | F,S,Su | CHEM 1111, MATH 1143 or 1147 |  |
| Total | 14 |  |  |  |  |  |
| Semester Three | | | | | | |
| GE Objective 7 or 8: | 3 |  | GE |  |  |  |
| GE Objective 2: COMM 1101 Principles of Speech | 3 |  | GE | F,S,Su |  |  |
| BIOL 3301 Anatomy & Physiology and 3301Lab | 3 | C- |  | F,S | BIOL 1101 |  |
| BIOL 2206 Cell Biology | 3 | C- |  | F,S | BIOL 1101, 1102, CHEM 1111, 1112 | CHEM 1112, BIOL 2207 |
| BIOL 2207 Cell Biology Lab | 1 |  |  | F,S |  | BIOL 2206 |
| Total | 13 |  |  |  |  |  |
| Semester Four | | | | | | |
| GE Objective 4 | 4 |  | GE |  |  |  |
| BIOL 2235 General Microbiology and 2235L | 3 |  |  | F,S | BIOL 1101, 1102, CHEM 1112 |  |
| BIOL 3302 Anatomy & Physiology and 3302 Lab | 4 | C- | UM | F,S | BIOL 1101 |  |
| GE Objective 3: MATH 1153 Intro to Statistics | 3 | C- | GE | F,S,Su | MATH 1108 |  |
| Total | 14 |  |  |  |  |  |
| Semester Five | | | | | | |
| Chemistry Electives | 7 | C- |  |  |  |  |
| Either BIOL 4463 & 4463L Human Pathophysiology  Or BIOL 3305 Introduction to Pathobiology | 3  or 4 | C- | UM | F or  F,S | BIOL 3301, 3302  BIOL 1101, 3301, 3302 |  |
| Free Electives | 0 or 1 |  |  |  |  |  |
| GE Objective 6: | 3 |  | GE |  |  |  |
| Total | 14 |  |  |  |  |  |
| Semester Six | | | | | | |
| BIOL 3358 Genetics | 3 |  | UM | F,S | BIOL 2206 or BIOL 2235 |  |
| BIOL 4451 Immunology | 3 |  | UM | F | BIOL 2221 or BIOL 2235 |  |
| GE Objective 9: | 3 |  | GE |  |  |  |
| GE Objective 4: | 3 |  | GE |  |  |  |
| **( Apply to MLS program)** | | | | | | |
| Total | 12 |  |  |  |  |  |
| Semester Seven | | | | | | |
| MLS 4410 Phlebotomy Practicum | 1 | C- | UM | F | Acceptance to MLS program |  |
| MLS 4412 Urinalysis and Body Fluids | 1 | C- | UM | F | Acceptance to MLS program |  |
| MLS 4414 Hematology & Hemostasis | 3 | C- | UM | F | Acceptance to MLS program |  |
| MLS 4416 Medical Microbiology | 3 | C- | UM | F | Acceptance to MLS program |  |
| MLS 4418 Medical Chemistry & Instrumentation | 3 | C- | UM | F | Acceptance to MLS program |  |
| MLS 4420 Medical Immunology | 2 | C- | UM | F | Acceptance to MLS program |  |
| MLS 4422 Basic Concepts Transfusion Medicine | 2 | C- | UM | F | Acceptance to MLS program |  |
| MLS 4424 Medical Laboratory Fundamentals | 1 | C- | UM | F | Acceptance to MLS program |  |
| Total | 16 |  |  |  |  |  |
| Semester Eight | | | | | | |
| MLS 4431 Medical Microbiology II | 3 | C- | UM | S | Acceptance to MLS program, MLS 4416 |  |
| MLS 4433 MLS Management & Education | 2 | C- | UM | S | Acceptance to MLS program |  |
| MLS 4435 Molecular Diagnosis | 3 | C- | UM | S | Acceptance to MLS program |  |
| MLS 4437 Critical Analysis of Lab Information | 3 | C- | UM | S | Acceptance to MLS program |  |
| MLS 4439 Advanced Concepts in Transfusion Medicine | 2 | C- | UM | S | Acceptance to MLS program, MLS 4422 |  |
| MLS 4441 MLS Research | 1-3 | C- | UM | S | Acceptance to MLS program |  |
| MLS 4455 MLS Student Laboratory Practices | 2 | C- | UM | S | Acceptance to MLS program |  |
| Total | 16-18 |  |  |  |  |  |
| Summer Practicums | | | | | | |
| MLS 4490 General Site Practicum | 1-6 |  | UM | F,S,Su | Acceptance to MLS program |  |
| MLS 4491 Microbiology Practicum | 2 |  | UM | F,S,Su | Acceptance to MLS program |  |
| MLS 4492 Hematology an Urinalysis Practicum | 2 |  | UM | F,S,Su | Acceptance to MLS program |  |
| MLS 4493 Transfusion Blood Bank Practicum | 1 |  | UM | F,S,Su | Acceptance to MLS program |  |
| MLS 4494 Chemistry and Automation Practicum | 1 |  | UM | F,S,Su | Acceptance to MLS program |  |
| Total | 7-12 |  |  |  |  |  |
| \*GE=General Education Objective, UU=Upper Division University, UM= Upper Division Major  \*\*See Course Schedule section of Course Policies page in the e-catalog (or input F, S, Su, etc.) | | | | | | |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **2017-2018 Major Requirements** | **CR** | **2017-2018 GENERAL EDUCATION OBJECTIVES**  **Satisfy Objectives 1,2,3,4,5,6 (7 or 8) and 9** | | | | **36 cr. min** | |
| **MAJOR REQUIREMENTS** | **80 - 88** | 1. Written English (6 cr. min) ENGL 1101 | | | | 3 | |
|  |  | ENGL 1102 | | | | 3 | |
| **Program Required Pre-Requisite Courses:** | **21 or 22** | 2. Spoken English (3 cr. min) COMM 1101 | | | | 3 | |
| BIOL 2206/BIOL 2207 Cell Biology and Lab | 4 | 3. Mathematics (3 cr. min) | | | |  | |
| BIOL 2235/BIOL 2235L General Microbiology and Lab | 4 | 4. Humanities, Fine Arts, Foreign Lang. **(2 courses; 2 categories; 6 cr. min)** | | | | | |
| BIOL 3301/BIOL 3301L Anatomy and Physiology and Lab | 4 |  | | | |  | |
| BIOL 3358 Genetics | 3 |  | | | |  | |
| BIOL 4451 Immunology | 3 | 5. Natural Sciences **(2 lectures-different course prefixes, 1 lab; 7 cr. min)** | | | | | |
| Either BIOL 4463 Human Pathophysiology  Or BIOL 3305 Introduction to Pathobiology | 3  Or 4 | BIOL 1101/1101L | | | | 4 | |
| **Other Required and Pre-Requisite Courses** | **20** | CHEM 1111 and 1111L | | | | 5 | |
| BIOL 1101 and Lab Biology I and Lab (Counted in GE Obj. 5) | |  | | | |  | |
| CHEM 1111 General Chemistry I and 1111L (Counted in GE Obj. 5) | | 6. Behavioral and Social Science **(2 courses-different prefixes; 6 cr. min)** | | | | | |
| BIOL 1102/BIOL 1102L Biology II | 4 |  | | | |  | |
| CHEM 1112/CHEM 1112L General Chemistry II | 4 |  | | | |  | |
| BIOL 3302/BIOL 3302L Anatomy and Physiology and Lab | 4 | One Course from EITHER Objective 7 OR 8 **(1course; 3 cr. min)** | | | | | |
| Additional Chemistry Courses to reach 16 credits – | 7 | 7. Critical Thinking | | | |  | |
|  |  | 8. Information Literacy | | | |
|  |  | 9. Cultural Diversity **(1 course; 3 cr. min)** | | | | | |
| **Professional Degree Requirements** | **31 - 33** |  | | | |  | |
| MLS 4410 Phlebotomy Practicum | 1 | General Education Elective to reach 36 cr. min. **(if necessary)** | | | | | |
| MLS 4412 Urinalysis and Body Fluids | 1 |  | | | |  | |
| MLS 4414 Hematology & Hemostasis | 3 | **Total GE** | | | | **39** | |
| MLS 4416 Medical Microbiology | 3 | GE Objectives - Catalog Requirements: | | | | | |
| MLS 4418 Medical Chemistry & Instrumentation | 3 |
| MLS 4420 Medical Immunology | 2 |  | | | | | |
| MLS 4422 Basic Concepts Transfusion Medicine | 2 |
| MLS 4424 Medical Laboratory Fundamentals | 1 |
| MLS 4431 Medical Microbiology II | 3 | **MAP Credit Summary** | | | | **CR** | |
| MLS 4433 Medical Lab Science Management & Education | 2 | Major | | | | 80 - 88 | |
| MLS 4435 Molecular Diagnosis | 3 | General Education | | | | 39 | |
| MLS 4437 Critical Analysis of Lab Information | 3 | Free Electives to reach 120 credits | | | | 0-1 | |
| MLS 4439 Advanced Concepts in Transfusion Medicine | 2 | TOTAL | | | | 120-127 | |
| MLS 4441 MLS Research | 1-3 |  | | | | | |
| MLS 4455 MLS Student Laboratory Practices | 2 |
|  |  |
| **Required Practicum Experience** | **8 or 13** |
| MLS 4490 General Site Practicum | 1 or 6 | **Graduation Requirement Minimum Credit Checklist** | | | **Confirmed** | | |
| MLS 4491 Microbiology Practicum | 2 | Minimum 36 cr. General Education Objectives (15 cr. AAS) | | |  | | |
| MLS 4492 Hematology and Urinalysis Practicum | 2 | Minimum 16 cr. Upper Division in Major (0 cr. Associate) | | |  | |  |
| MLS 4493 Transfusion Blood Bank Practicum | 1 | Minimum 36 cr. Upper Division Overall (0 cr. Associate) | | |  | |  |
| MLS 4494 Chemistry and Automation Practicum | 1 | Minimum of 120 cr. Total (60 cr. Associate) | | |  | |  |
|  |  |  | |  | | | |
| **Advising Notes** | | ***MAP Completion Status (for internal use only)*** | | | | | |
| MATH 1143 – this course should be removed as requirement in catalog | |  | *Date* | | | | |
| **MLS 4490 – 1 credit is required for the BS in MLS but 6 credits are required to** | | *Department:* | 10.10.2017 jb | | | | |
| **be eligible for the Board of Certification.** | | *CAA or COT:* | Juli - 9/6/17 jh 10.9.2017 | | | | |
|  | | *Registrar:* |  | | | | |
|  | |  | | | | | |