



**SOUTH DAKOTA BOARD OF REGENTS
ACADEMIC AFFAIRS FORMS**

Substantive Program Modification Form

| | |
|-------------------------------------|--------------------------------------|
| UNIVERSITY: | SDSU |
| CURRENT PROGRAM DEGREE: | B.S. |
| CURRENT PROGRAM MAJOR/MINOR: | Medical Laboratory Science (B.S.) |
| CURRENT SPECIALIZATION: | Upward Mobility Program |
| CIP CODE: | 51.1005 |
| UNIVERSITY DEPARTMENT: | Allied & Population Health |
| BANNER DEPARTMENT CODE: | SAPH |
| UNIVERSITY COLLEGE: | Pharmacy & Allied Health Professions |
| BANNER COLLEGE CODE: | 3P |

University Approval

To the Board of Regents and the Executive Director: I certify that I have read this proposal, that I believe it to be accurate, and that it has been evaluated and approved as provided by university policy.

 Dennis D. Hedge
 Vice President of Academic Affairs or
 President of the University

 12/17/2024
 Date

1. This modification addresses a change in:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Total credits required within the discipline | <input type="checkbox"/> Total credits of supportive course work |
| <input checked="" type="checkbox"/> Total credits of elective course work | <input type="checkbox"/> Total credits required for program |
| <input type="checkbox"/> Program name | <input checked="" type="checkbox"/> Existing specialization |
| <input type="checkbox"/> CIP Code | <input type="checkbox"/> Other (explain below) |
| <input type="checkbox"/> Modification requiring Board of Regents approval | |
- Must have prior approval from Executive Director or designee*

2. Effective date of change: 2025-2026 Academic Year

3. Program Degree Level:

Associate Bachelor's Master's Doctoral

4. Category:

Certificate Specialization Minor Major

5. If a name change is proposed, the change will occur:

- On the effective date for all students
- On the effective date for students new to the program (enrolled students will graduate from existing program)

Proposed new name:

6. Is the program being modified associated with a current articulation agreement?

Yes No

- a. **If yes, will the articulation agreement need to be updated with the partner institution following the approve of the program change? Please explain:**

Articulation agreements will be reviewed following approval of the revised curriculum.

7. Primary Aspects of the Modification:

Existing Curriculum

Proposed Curriculum (highlight changes)

| Pref. | Num. | Title | Cr. Hrs. | Pref. | Num. | Title | Cr. Hrs. |
|--|----------|---|-----------|--|----------|---|-----------|
| System General Education Requirements | | | 33 | System General Education Requirements | | | 33 |
| System General Education Requirements - Electives | | | 21 | System General Education Requirements - Electives | | | 21 |
| | | SGR#1 | 3 | | | SGR #1 | 3 |
| | | SGR#1 | 3 | | | SGR #1 | 3 |
| | | SGR#2 | 3 | | | SGR #2 | 3 |
| | | SGR #3 | 3 | | | SGR #3 | 3 |
| | | SGR #3 | 3 | | | SGR #3 | 3 |
| | | SGR #4 | 3 | | | SGR #4 | 3 |
| | | SGR #4 | 3 | | | SGR #4 | 3 |
| System General Education Requirements - Required | | | 12 | System General Education Requirements - Required | | | 12 |
| MATH | 114 | College Algebra (SGR #5) | 3 | MATH | 114 | College Algebra (SGR #5) | 3 |
| CHEM | 106 | Chemistry Survey I (SGR #6) | 3 | CHEM | 106 | Chemistry Survey I (SGR #6) ** | 3 |
| CHEM | 106L | Chemistry Survey I Lab (SGR #6) | 1 | CHEM | 106L | Chemistry Survey I Lab (SGR #6) ** | 1 |
| CHEM | 108 | Chemistry Survey II (SGR #6) | 4 | CHEM | 108 | Chemistry Survey II (SGR #6) ** | 4 |
| CHEM | 108L | Chemistry Survey II Lab (SGR #6) | 1 | CHEM | 108L | Chemistry Survey II Lab (SGR #6) ** | 1 |
| Major Requirements | | | 83 | Major Requirements | | | 78 |
| BIOL | 221 | Human Anatomy ** | 4 | BIOL | 221 | Human Anatomy ** | 4 |
| BIOL | 221L | Human Anatomy Lab ** | 0 | BIOL | 221L | Human Anatomy Lab ** | 0 |
| BIOL | 325-325L | Physiology ** | 4 | BIOL | 325-325L | Physiology ** | 4 |
| BIOL | 325L | Physiology Lab ** | 0 | BIOL | 325L | Physiology Lab ** | 0 |
| MLS | 201 | Understanding Medical Laboratory Science | 2 | MLS | 201 | Understanding Medical Laboratory Science | 2 |
| MLS | 301 | Hematology I ** Upward mobility students do not take the entry level course | 2 | MLS | 301 | Hematology I ** Upward mobility students do not take the entry level course | 2 |
| MLS | 301L | Hematology I Lab** Upward mobility students do not take the entry level course | 1 | MLS | 301L | Hematology I Lab** Upward mobility students do not take the entry level course | 1 |
| MLS | 311 | Clinical Chemistry I ** Upward mobility students do not take the entry level course | 4 | MLS | 311 | Clinical Chemistry I ** Upward mobility students do not take the entry level course | 4 |
| MLS | 341 | Diagnostic Microbiology I | 3 | MLS | 341 | Diagnostic Microbiology I | 3 |
| MLS | 341L | Diagnostic Microbiology I Lab** Upward mobility students do not take the laboratory course | 2 | MLS | 341L | Diagnostic Microbiology I Lab** Upward mobility students do not take the laboratory course | 2 |
| MLS | 401 | Hematology II and Hemostasis | 3 | MLS | 401 | Hematology II and Hemostasis | 3 |
| MLS | 401L | Hematology II and Hemostasis** Upward mobility students do not take the laboratory course | 1 | MLS | 401L | Hematology II and Hemostasis** Upward mobility students do not take the laboratory course | 1 |
| MLS | 403 | Diagnostic Immunology | 3 | MLS | 403 | Diagnostic Immunology | 3 |
| MLS | 403L | Diagnostic Immunology Lab** Upward mobility students do not take the laboratory course | 1 | MLS | 403L | Diagnostic Immunology Lab** Upward mobility students do not take the laboratory course | 1 |
| | | | | MLS | 405 | Advanced Clinical Chemistry | 3 |
| | | | | MLS | 406 | Hemostasis & Advanced Hematology | 3 |
| MLS | 411 | Clinical Chemistry II | 3 | MLS | 411 | Clinical Chemistry II | 3 |
| MLS | 411L | Clinical Chemistry II Lab** Upward mobility students do not take the laboratory course | 1 | MLS | 411L | Clinical Chemistry II Lab** Upward mobility students do not take the laboratory course | 1 |
| MLS | 412 | Laboratory Methods ** Upward mobility students do not take this course | 3 | MLS | 412 | Laboratory Methods ** Upward mobility students do not take this course | 3 |
| MLS | 412L | Laboratory Methods Lab ** Upward mobility students do not take this course | 1 | MLS | 412L | Laboratory Methods Lab ** Upward mobility students do not take this course | 1 |

Existing Curriculum

Proposed Curriculum (*highlight changes*)

| Pref. | Num. | Title | Cr. Hrs. | Pref. | Num. | Title | Cr. Hrs. |
|---|-------------|---|-----------|--|-------------|--|--------------|
| MLS | 431 | Immunoematology | 2 | MLS | 431 | Immunoematology | 2 |
| <i>MLS</i> | <i>431L</i> | <i>Immunoematology Lab** Upward Mobility students do not take the laboratory course</i> | 1 | <i>MLS</i> | <i>431L</i> | <i>Immunoematology Lab** Upward Mobility students do not take the laboratory course</i> | 1 |
| MLS | 441 | Diagnostic Microbiology II | 3 | MLS | 441 | Diagnostic Microbiology II | 3 |
| <i>MLS</i> | <i>441L</i> | <i>Diagnostic Microbiology II Lab** Upward mobility students do not take the laboratory course</i> | 2 | <i>MLS</i> | <i>441L</i> | <i>Diagnostic Microbiology II Lab** Upward mobility students do not take the laboratory course</i> | 2 |
| MLS | 451 | Immunoematology II | 2 | MLS | 451 | Immunoematology II | 2 |
| <i>MLS</i> | <i>451L</i> | <i>Immunoematology II Lab** Upward mobility students do not take the laboratory course</i> | 1 | <i>MLS</i> | <i>451L</i> | <i>Immunoematology II Lab** Upward mobility students do not take the laboratory course</i> | 1 |
| MLS | 461 | Intro. To Management and Education | 3 | MLS | 461 | Leadership and Education in the Medical Laboratory | 3 |
| MLS | 471 | Advanced Medical Diagnostics | 2 | MLS | 471 | Advanced Medical Diagnostics | 2 |
| <i>MLS</i> | <i>471L</i> | <i>Advanced Medical Diagnostics Lab** Upward mobility students do not take the laboratory course</i> | 2 | <i>MLS</i> | <i>471L</i> | <i>Advanced Medical Diagnostics Lab** Upward mobility students do not take the laboratory course</i> | 2 |
| MLS | 483 | Senior Capstone Clinical Experience | 3 | MLS | 483 | Medical Laboratory Capstone | 3 |
| STAT | 281 | Introduction to Statistics | 3 | STAT | 281 | Introduction to Statistics | 3 |
| Upward Mobility Technical Requirements | | | | Upward Mobility Technical Requirements | | | |
| MLS | 312 | MLT to MLS Transitional Experience | 3 | MLS | 312 | MLT to MLS Transitional Experience | 4 |
| MLS | 468 | Advanced Supervised Clinical Experience I | 5 | MLS | 468 | Advanced Supervised Clinical Experience I | 5 |
| MLS | 469 | Advanced Supervised Clinical Experience II | 5 | MLS | 469 | Advanced Supervised Clinical Experience II | 5 |
| | | | | | | | |
| | | | | | | | |
| MLS | 368 | Medical Laboratory Science Transfer Credit ** Requirements for Upward Mobility <i>may</i> be satisfied under this course code <ul style="list-style-type: none"> • <u>19</u> credits for the following laboratory and junior level SDSU MLS courses prior to beginning the online MLS baccalaureate program: MLS 201, MLS 301-301L, MLS 311, MLS 341L, MLS 401L, MLS 403L, MLS 411L, MLS 412-412L, MLS 441L, MLS 431L, MLS 451L, MLS 471L. • <u>5</u> credits may be applied within the clinical practicum. • <u>12</u> credits may be transcribed for MLT courses within the curriculum that do not meet the equivalency transfer but are recognized as natural science equivalencies to meet CHEM 106-106L, CHEM 108-108L, BIOL 221-221L and BIOL 325-325L requirements. | 18-41 | MLS | 368 | Medical Laboratory Science Transfer Credit ** Requirements for Upward Mobility <i>may</i> be satisfied under this course code <ul style="list-style-type: none"> • <u>19</u> credits for the following laboratory and junior level SDSU MLS courses prior to beginning the online MLS baccalaureate program: MLS 201, MLS 301-301L, MLS 311, MLS 341L, MLS 401L, MLS 403L, MLS 411L, MLS 412-412L, MLS 441L, MLS 431L, MLS 451L, MLS 471L. • 10 credits may be applied within the clinical practicum. • 17 credits may be transcribed for MLT courses within the curriculum that do not meet the equivalency transfer but are recognized as natural science equivalencies to meet CHEM 106-106L, CHEM 108-108L, BIOL 221-221L and BIOL 325-325L requirements. | 20-46 |
| Electives (Additional elective credits needed to reach 120 credits) | | | 4 | Electives (Additional elective credits needed to reach 120 credits) | | | 9 |
| Summary of Credits Medical Laboratory Science (B.S.) – Upward Mobility Program | | | | | | | |
| System General Education Requirements | | | 33 | System General Education Requirements | | | 33 |
| Major Requirements | | | 83 | Major Requirements | | | 78 |
| Electives | | | 4 | Electives | | | 9 |
| Total number of hours required for major | | | 95 | Total number of hours required for major | | | 94 |
| Total number of hours required for degree | | | 120 | Total number of hours required for degree | | | 120 |

8. Explanation of the Change:

The Medical Laboratory Science program requests several changes to update the curriculum, eliminating content that is no longer needed and adding content necessary for contemporary practice.

- MLS 312 MLT to MLS Transition will be increased from 3 to 4 credits to allow for a more comprehensive review of what MLT students are expected to know for hematology, chemistry, urinalysis, and body fluid analysis, plus a review of quality assurance, quality control and an introduction to instrumentation and laboratory math.
- MLS 405 Advanced Clinical Chemistry (3 cr.), and MLS 406 Hemostasis & Advanced Hematology (3 cr.), will be created to expand upon topics introduced in MLS 312, but add additional focus on correlation, laboratory applications, and diagnostics. These course additions will replace MLS 401 Hematology II and Hemostasis (3 cr.) and MLS 411 Clinical Chemistry II (3 cr.) in the upward mobility pathway.
- MLS 461 Introduction to Management and Education will continue to be included in the upward mobility curriculum but will be renamed *Leadership and Education in the Medical Laboratory* with a new course description to reflect updated content.
- MLS 201 Understanding Medical Laboratory Science has been removed from the major requirements. Upward mobility students currently do not need to complete MLS 201, as they have previous work experience as an MLT.
- The upward mobility curriculum will conclude with MLS 483 Senior Capstone Clinical Experience; however, this course will be renamed *Medical Laboratory Capstone* with a new course description and variable credits, allowing it to serve as the final course for all MLS pathways. The course will be 3 credits in the upward mobility curriculum based on individual student requirements.