

LANSING COMMUNITY COLLEGE

| Liberal Arts   |   |  |                          |
|--|---|--|--------------------------|
| Curriculum Code:<br>0212 (Effective Fall<br>2017 – Summer<br>2022) | <b>Molecular Biotechnology A.A.S. Pathway</b> |  |                          |
| Semester I   | Course Title                                  | Prerequisites  | Credit/<br>Billing Hours |
| <b>Communication Core Area - <i>Select 1</i></b>                   |   |  |                          |
| COMM 120<br><i>(formerly SPCH 120)</i>                             | Dynamics of Communication                     | Reading Level 5 and<br>Writing Level 6   | 3 / 3                    |
| COMM 130<br><i>(formerly SPCH 130)</i>                             | Fund of Public Speaking                       | Reading Level 5 and<br>Writing Level 6   | 3 / 3                    |
| <b>Math Core Area - <i>Select 1</i></b>                            |   |  |                          |
| MATH 121   | Precalculus I                                 | (Minimum 2.5 in MATH<br>109 or MATH 112 within 2<br>years or Math Level 6<br>within 2 years) and<br>Reading Level 5 and<br>Writing Level 4     | 4 / 4                    |
| <b>Program of Study Requirements</b>                               |   |  |                          |
| BIOL 127   | Cell Biology                                  | (Minimum 2.0 in CHEM<br>120) or (Minimum 2.0 in<br>CHEM 151 or concurrently)<br>and Reading Level 5 and<br>Writing Level 6 and Math<br>Level 4 | 4 / 6                    |
| CHEM 151   | General Chemistry Lecture I                   | Reading Level 5 and<br>Writing Level 6 and (Math<br>Level 6 or MATH 109<br>concurrently or MATH 112<br>concurrently)                           | 4 / 4                    |
| CHEM 161   | General Chemistry Lab I                       | Minimum 2.0 in CHEM 151<br>or concurrently and<br>Reading Level 5 and<br>Writing Level 6 and (Math<br>Level 6 or MATH 112<br>concurrently)     | 1 / 3                    |
| <b>Credits</b>   |   |  | <b>16 / 20</b>           |

| Semester II                                | Course Title                   | Prerequisites   | Credit/Billing Hours |
|--|--------------------------------|---|----------------------|
| <b>Writing Core Area - <i>Select 1</i></b> |                                |   |                      |
| ENGL 121<br><i>(formerly WRIT 121)</i>     | Composition I                  | Reading Level 5 and Writing Level 6   | 4 / 4                |
| ENGL 122<br><i>(WRIT 122 equivalent)</i>   | Composition II                 | Minimum 2.0 in ENGL 121 (formerly WRIT 121) or ENGL 131 (formerly WRIT 131) or (Reading Level 5 and Writing Level 8)                                      | 4 / 4                |
| <b>Program of Study Requirements</b>       |                                |   |                      |
| CHEM 152                                   | General Chemistry Lecture II   | Minimum 2.0 in CHEM 151 and (Math Level 7 or MATH 121 or MATH 126 or concurrently) and Reading Level 5 and Writing Level 6                                | 3 / 3                |
| CHEM 162                                   | General Chemistry Lab II       | Minimum 2.0 in (CHEM 152 or concurrently) and CHEM 161 and Reading Level 5 and Writing Level 6 and Math Level 7 or (Math 121 or Math 126 or concurrently) | 1 / 3                |
| ISCI 245                                   | S.T.E.M. Workplace Practices   | Reading Level 5 and Writing Level 6 and (Math Level 5 or MATH 109 concurrently or MATH 112 concurrently)  | 4 / 6                |
| STAT 215                                   | Intro to Probability and Stats | (Minimum 2.0 in MATH 120 or above or Math Level 7) and Reading Level 5 and Writing Level 4  | 4 / 4                |
| <b>Credits</b>                             |                                |   | <b>16 / 20</b>       |

| Semester III   | Course Title                   | Prerequisites  | Credit/Billing Hours |
|--|--------------------------------|--|----------------------|
| <b>Global Perspectives and Diversity Core Area - <i>Select 1</i></b> |                                |  |                      |
| ECON 120   | Power, Authority and Exchange  | Reading Level 5  | 4 / 4                |
| GEOG 200   | World Regional Geography       | Reading Level 5  | 4 / 4                |
| HUMS 213   | World Civilizations to 1600    | Reading Level 5 and Writing Level 6  | 4 / 4                |
| PHIL 211   | Philosophy: Ancient & Medieval | Reading Level 5 and Writing Level 6  | 4 / 4                |
| POLS 260   | Comparative Political Systems  | Reading Level 5 and Writing Level 6  | 3 / 3                |
| SOCL 120   | Introduction to Sociology      | Reading Level 5 or AASD 105 concurrently   | 4 / 4                |
| <b>Program of Study Requirements</b>                                 |                                |  |                      |
| BIOL 203   | Microbiology                   | (Minimum 2.0 in BIOL 121 or BIOL 127 or CHEM 120 or CHEM 151 or passing score on Health Biology Proficiency Test) and Reading Level 5 and Writing Level 6 and Math Level 4 | 3 / 3                |
| BIOL 204   | Microbiology Laboratory        | Minimum 2.0 in BIOL 203 or concurrently and Reading Level 5 and Writing Level 6 and Math Level 4   | 1 / 3                |
| BIOL 275   | Molecular Biology I            | Minimum 2.0 in (BIOL 127 and CHEM 151 and CHEM 161) and Reading Level 5 and Writing Level 6 and Math Level 4   | 4 / 6                |
| CHEM 251   | Organic Chemistry Lecture I    | Minimum 2.0 in CHEM 151 and Reading Level 5 and Writing Level 6  | 4 / 4                |
| <b>Credits</b>   |                                |  | <b>15-16 / 19-20</b> |

| Semester IV  | Course Title                  | Prerequisites   | Credit/Billing Hours |
|--|-------------------------------|---|----------------------|
| <b>Program of Study Requirements</b>   |                               |   |                      |
| BIOL 270   | Human Genetics                | Reading Level 5 and Writing Level 6 and Math Level 4  | 3 / 3                |
| BIOL 276   | Molecular Biology II          | Minimum 2.0 in BIOL 275 and Reading Level 5 and Writing Level 6 and Math Level 4                | 4 / 6                |
| <b>Related Course Electives - <i>Select 2-3 courses for a minimum of 6 credits</i></b> |                               |   |                      |
| BIOL 128   | Organismal Biology            | Reading Level 5 and Writing Level 6 and Math Level 4  | 4 / 6                |
| BIOL 260   | Botany                        | Reading Level 5 and Writing Level 6   | 4 / 6                |
| CHEM 252   | Organic Chemistry Lecture II  | Minimum 2.0 in CHEM 251 and Reading Level 5 and Writing Level 6                                 | 4 / 4                |
| CHEM 262   | Quantitative Analysis         | Minimum 2.0 in (CHEM 152 and CHEM 162) and Reading Level 5 and Writing Level 6 and Math Level 7 | 3 / 6                |
| CHEM 272   | Organic Chemistry Laboratory  | Minimum 2.0 in CHEM 251 and Reading Level 5 and Writing Level 6                                 | 2 / 6                |
| CITF 110   | Intro Computer Info Systems   | Reading Level 4 and Writing Level 4   | 3 / 3                |
| PHYS 221   | Introductory Physics I        | Reading Level 5 and Writing Level 6 and (Math Level 9 or minimum 2.0 in MATH 122 or MATH 141)   | 4 / 6                |
| SCIN 287   | Science Technology Internship | Department Approval   | 2-4 / 2-4            |
| <b>Credits</b>   |                               |   | <b>13-15 / 15-21</b> |
| <b>Total Credits</b>   |                               |   | <b>60-63 / 74-81</b> |