

LANSING COMMUNITY COLLEGE

Liberal Arts

Curriculum Code: 1608
(Effective Fall 2018 –
Summer 2023)

Molecular Biotechnology Techniques C.C. Pathway

The Molecular Biotechnology Techniques degree is a laboratory-intensive curriculum which emphasizes the wide-ranging applications of recombinant DNA technology (genetic engineering) including the preparation of purified DNA, Polymerase Chain Reaction, and DNA "fingerprinting". Graduates will be able to work in many areas of biotechnology, such as human genetic disease research, improvement of disease-resistance in plants, enhanced crop production, pharmaceutical research, biological cleanup of environmental pollution, forensic science, or genome sequencing projects. If you plan to transfer to a four-year school, please see an academic advisor before enrolling. Not all courses in this program transfer to all colleges. Students planning to transfer should see an academic advisor before enrolling in any course.

For More Information

Contact the Science Department, Arts and Sciences Building, Room 301, telephone number (517) 483-1092, or the Academic Advising Center, Gannon Building – StarZone, telephone number (517) 483-1904.

| Semester I | Course Title | Prerequisites | Credit/Billing Hours |
|--------------------------------------|-----------------------------|---|-----------------------------|
| Program of Study Requirements | | | |
| BIOL 127 | Cell Biology | (Minimum 2.0 in CHEM 120) or (Minimum 2.0 in CHEM 151 or concurrently) and Reading Level 5 and Writing Level 6 and Math Level 4 | 4 / 6 |
| CHEM 151 | General Chemistry Lecture I | Reading Level 5 and Writing Level 6 and (Math Level 6 or MATH 109 concurrently or MATH 112 concurrently) | 4 / 4 |
| CHEM 161 | General Chemistry Lab I | Minimum 2.0 in CHEM 151 or concurrently and Reading Level 5 and Writing Level 6 and (Math Level 6 or MATH 112 concurrently) | 1 / 3 |
| Credits | | | 9 / 13 |

| Semester II Fall | Course Title | Prerequisites | Credit/Billing Hours |
|--|------------------------------|---|-----------------------------|
| Program of Study Requirements | | | |
| BIOL 275 <i>(Fall only)</i> | 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 |
| BIOL 203 | Microbiology | Reading Level 5 and Writing Level 6 and (Math Level 4 or minimum 2.0 in MATH 105 or MATH 106) | 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 or minimum 2.0 in MATH 105 or MATH 106) | 1 / 3 |
| Credits | | | 8 / 12 |
| Semester III Spring | Course Title | Prerequisites | Credit/Billing Hours |
| Program of Study Requirements - <i>Select 1</i> | | | |
| BIOL 276 <i>(Spring only)</i> | Molecular Biology II | Minimum 2.0 in BIOL 275 and Reading Level 5 and Writing Level 6 and Math Level 4 | 4 / 6 |
| Electives - <i>Select 1</i> | | | |
| BIOL 270 | Human Genetics | Reading Level 5 and Writing Level 6 and (Math Level 4 or minimum 2.0 in MATH 105 or MATH 106) | 3 / 3 |
| ISCI 245 <i>(Spring only)</i> | 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 |
| Credits | | | 7-8 / 9-12 |
| Total Credits | | | 24-25 / 34-37 |