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|---|---------------------|---|----------------|
| <b>MASS COLLEGES articulation agreement:</b>  | <b>MassTransfer</b> |   |                |
| <b>Holyoke Community College AA in Biotechnology Transfer Pathway</b>                   |                     |   |                |
| <b>to Westfield State University BS in Biology with Biotechnology concentration</b>     |                     |   |                |
| <i>* Denotes Community College MassTransfer Block requirement</i>                       |                     |   |                |
| <i>Denotes WSU Biology and Biotechnology concentration major requirement</i>            |                     |   |                |
| <i>To earn the bachelor's degree, a minimum of 30 credits must be completed at WSU.</i> |                     |   |                |
| <b>Associate's Degree Requirements:</b>   |                     | <b>Bachelor's Degree Requirements:</b>                      |                |
| <i>Courses</i>  | <i>Credits</i>      | <i>Courses</i>  | <i>Credits</i> |
| ENG 101/ec English Composition I *  | 3                   | ENGL 0101 English Composition I                             | 3              |
| ENG 102/ec English Composition II *   | 3                   | ENGL 0101 English Composition II                            | 3              |
| Social Science Elective/ss *  | 3                   | Core Requirement  | 3              |
| Social Science Elective/ss *  | 3                   | Core Requirement  | 3              |
| Humanities/hu - Fine Arts (see below for options) *                                     | 3                   | Core Requirement  | 3              |
| Humanities/hu - Fine Arts (see below for options) *                                     | 3                   | Core Requirement  | 3              |
| BIO 107 General Biology I   | 4                   | <b>BIOL 0129 General Biology I</b>                          | <b>4</b>       |
| BIO 108 General Biology II  | 4                   | <b>BIOL 0128 General Biology II</b>                         | <b>4</b>       |
| MTH 104 or MTH 108 or <b>MTH 113 (prefer)</b>   | 4                   | <b>Math 0105 Calculus I</b>                                 | <b>4</b>       |
| <b>STEM MassTransfer Block total</b>  | <b>30</b>           |   | <b>30</b>      |
| <b>Additional Requirements &amp; General Elective</b>                                   |                     |   |                |
|   |                     |   |                |
| CHM 121 Chemistry for Science Majors I  | 4                   | <b>CHEM 0109 General Chemistry I</b>                        | <b>4</b>       |
| CHM 124 Chemistry for Science Majors II   | 4                   | <b>CHEM 0111 General Chemistry II</b>                       | <b>4</b>       |
| BIO 106 Intro to Biotechnology  | 4                   | BIOL Elective Credit  | 4              |
| BIO 113 Biotechnology Seminar/CRC 101   | 1                   | BIOL Elective Credit  | 1              |
| BIO 229 Microbiology  | 4                   | <b>BIOL 0223 Microbiology</b>                               | <b>4</b>       |
| BIO 240 Cell Culture and Protein Purification   | 4                   | BIOL Elective Credit  | 4              |
| MTH 142 Statistics  | 3                   | MATH 0108 Elementary Statistics                             | 3              |
| <b>Select 2 from the following:</b>   | 8                   |   |                |
| BIO 243 Genetics  |                     | <b>BIOL 0203 Genetics</b>                                   | <b>4</b>       |
| BIO 242 Cell Biology  |                     | <b>BIOL 0205 Cell Biology</b>                               | <b>4</b>       |
| MTH 108 Precalculus   |                     |   |                |
| MTH 113 Calculus I  |                     |   |                |
| CHM 221 & 222 Organic Chemistry I/II  |                     | <b>CHEM 201 &amp; 203 Organic Chemistry I/II</b>            | <b>8</b>       |
| PHS 111 & 112 Physics for Engineer/Science I/II   |                     | <b>PHSC 0125 &amp; 0127 Physics I/II</b>                    | <b>4</b>       |
|   | <b>32</b>           |   | <b>32</b>      |
|   |                     |   |                |
|   |                     | <b>Additional major requirements:</b>                       |                |
|   |                     | <b>BIOL 0201 General Ecology</b>                            | <b>4</b>       |
|   |                     | <b>BIOL 0230 Evolution</b>                                  | <b>3</b>       |
| <b>Notes:</b>   |                     | <b>BIOL 0237 Human Anatomy &amp; Physiology</b>             | <b>4</b>       |
| <i>Suggested electives:</i>   |                     | <b>BIOL 0278 Biostatistics</b>                              | <b>3</b>       |
| Social Science Elective ECN 101   |                     | <b>BIOL 0281 Seminar: Practices and Policies in Biotech</b> | <b>1</b>       |
| Humanities Elective PHI 120   |                     | <b>BIOL 0313 Immunology</b>                                 | <b>4</b>       |
| Students selecting CHM 221 must also take CHM 222                                       |                     | <b>BIOL 0342 Drugs: From Start to Finish</b>                | <b>3</b>       |
| Students selecting PHS 111 must also take PHS 112                                       |                     | <b>BIOL 0377 Research Experience</b>                        | <b>6</b>       |
|   |                     | <b>BIOL 0380 Senior Seminar</b>                             | <b>1</b>       |
|   |                     | <b>BIOL 0180 Introductory Seminar in Biology</b>            | <b>1</b>       |
|   |                     | <b>Major credits</b>  | <b>73</b>      |
|   |                     |   |                |
|   |                     | <b>Additional Core/General Electives</b>                    |                |
|   |                     | (Advisor will give list of qualifying elective credits)     | <b>0-17</b>    |
|   |                     |   |                |
| <b>Associate's degree credit total:</b>   | <b>62</b>           | <b>Bachelor's degree credit total:</b>                      | <b>120</b>     |
|   |                     |   |                |

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|  |  | Courses in blue are WSU major requirements |  |
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