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| Date Modified:        | 5.13.21   |
| MSU Transfer Advisor: | Angela Plank<br>AngelaPlank@MissouriState.edu<br>417-836-6851 |

# OZARKS TECHNICAL COMMUNITY COLLEGE

Courses are sequenced to provide guidance and to help ensure that prerequisite requirements are met.

## OTC Associate of Science in Biology to

### MSU Bachelor of Science in Biology with Chemistry Minor

Catalog Year: 2021-2022

The following is a guide to graduation with completion of OTC's Associate of Science in Biology and MSU's Bachelor of Science in Biology degree.

**The B.S. in Biology may be completed on campus only.**

*The Biology degree is a non-comprehensive major meaning it requires a minor or second major.*



#### OTC Year 1 Semester 1

| REQUIREMENT DESCRIPTION   | OTC COURSE ID                            | TITLE                                       | CREDIT HOURS | MSU EQUIVALENT | MEETS CORE 42 | MSU MAJOR REQUIREMENT |
|---|--|---|--------------|----------------|---------------|-----------------------|
| <b>Mathematical Sciences</b><br><i>5 hours required for the A.S. in Biology</i>   | MTH 138                                  | Pre-Calculus Mathematics                    | 5            | MTH 138        | ✓             |                       |
| <b>Written Communications</b><br><i>6 credit hours</i>  | <b>Choose one:</b><br>ENG 100<br>ENG 101 | Composition I with Support<br>Composition I | 3-5          | ENG 110        | ✓             |                       |
| <b>Natural Sciences</b><br><i>7 credit hours</i><br><small>(Must fulfill 2 disciplines including one course with a lab component)</small> | BIO 160                                  | General Biology I                           | 5            | BIO 121        | ✓             | ✓                     |
| <b>Social/Behavioral Sciences</b><br><i>9 credit hours</i><br><small>(Must fulfill 2 disciplines)</small>                                 | PSY 110                                  | Introduction to Psychology                  | 3            | PSY 121        | ✓             |                       |
| <b>Semester 1 Total</b>   |  |   | <b>16-18</b> |                |               |                       |

#### OTC Year 1 Semester 2

| REQUIREMENT DESCRIPTION   | OTC COURSE ID                                    | TITLE                       | CREDIT HOURS | MSU EQUIVALENT            | MEETS CORE 42 | MSU MAJOR REQUIREMENT |
|---|--|-----------------------------|--------------|---------------------------|---------------|-----------------------|
| <b>Program Specific Course</b>  | BIO 170  | General Biology II          | 5            | BIO 122                   |               | ✓                     |
| <b>Oral Communications</b><br><i>3 credit hours</i>   | <b>Choose one:</b><br>COM 100                    | COM 105                     | 3            | Varies                    | ✓             |                       |
| <b>Natural Sciences</b><br><i>7 credit hours</i><br><small>(Must fulfill 2 disciplines including one course with a lab component)</small> | CHM 160<br>and<br>CHM 161                        | General Chemistry I and Lab | 5            | CHM 160<br>and<br>CHM 161 | ✓             | ✓                     |
| <b>Elective (to total 62 hours)</b>   | Any course numbered 100 and above - your choice. |                             | 1            | Varies                    |               |                       |
| <b>Semester 2 Total</b>   |  |                             | <b>14</b>    |                           |               |                       |

#### OTC Year 2 Semester 3

| REQUIREMENT DESCRIPTION   | OTC COURSE ID                 | TITLE                            | CREDIT HOURS | MSU EQUIVALENT            | MEETS CORE 42 | MSU MAJOR REQUIREMENT |
|---|-------------------------------|----------------------------------|--------------|---------------------------|---------------|-----------------------|
| <b>Social/Behavioral Sciences</b><br><i>9 credit hours required for Core 42 &amp; Institutional Elective</i><br><i>9 hours required for A.S. in Biology</i> | <b>Choose one:</b><br>PLS 101 | HST 120                          | 3            | Varies                    | ✓             |                       |
| <b>Program Specific Course</b>  | PHY 120                       | General Physics I                | 4            | PHY 123                   |               | ✓                     |
| <b>Recommended Institutional Elective</b><br><i>9 hours required for A.S. in Biology</i>  | MTH 140                       | Analytic Geometry and Calculus I | 5            | MTH 261                   |               | ✓                     |
| <b>Program Specific Course</b>  | BIO 250                       | Genetics                         | 5            | BIO 235<br>and<br>BIO 236 |               | ✓                     |
| <b>Semester 3 Total</b>   |                               |                                  | <b>17</b>    |                           |               |                       |

#### OTC Year 2 Semester 4

| REQUIREMENT DESCRIPTION   | OTC COURSE ID   | TITLE                                    | CREDIT HOURS                             | MSU EQUIVALENT  | MEETS CORE 42                            | MSU MAJOR REQUIREMENT                      |  |                               |   |        |   |  |
|---|---|--|--|---|--|--|--|-------------------------------|---|--------|---|--|
| <b>Program Specific Course</b>  | CHM 170<br>and<br>CHM 171                                       | General Chemistry II and Lab             | 5  | CHM 170<br>and<br>CHM 171                                 |  | ✓  |  |                               |   |        |   |  |
| <b>Written Communications</b><br><i>6 credit hours</i>  | <b>Choose one:</b><br>ENG 102<br>ENG 150                        | Composition II<br>Technical Writing      | 3  | ENG 210<br>ENG 221  | ✓  |  |  |                               |   |        |   |  |
| <b>Program Specific Course</b>  | PHY 130   | General Physics II                       | 4  | PHY 124   |  | ✓  |  |                               |   |        |   |  |
| <b>Humanities and Fine Arts</b><br><i>9 credit hours</i><br><small>(Must fulfill 2 disciplines)</small> | <b>Choose one:</b><br>ART 100<br>ART 101<br>ART 105<br>ART 120▲ | ASL 101<br>ASL 102<br>CHN 101<br>ENG 180 | ENG 240<br>ENG 241<br>ENG 260<br>ENG 265 | ENG 270<br>ENG 271<br>FRN 101<br>FRN 102                  | GRM 101<br>GRM 102<br>MUS 101<br>MUS 105 | MUS 106<br>MUS 110<br>MUS 235*▲<br>PHL 101 | PHL 105<br>REL 100<br>REL 101<br>REL 102 | SPN 101<br>SPN 102<br>THR 101 | 3 | Varies | ✓ |  |
| <b>Semester 4 Total</b>   |   |  | <b>15</b>                                |   |  |  |  |                               |   |        |   |  |
| <b>Total Hours at OTC</b>   |   |  | <b>62-64</b>                             | <i>Total Hours Applied Toward MSU Major Requirements:</i> |  | 38   |  |                               |   |        |   |  |

\* One credit hour course

▲ May choose only one, falls under MOTR code 'PERF'

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**MSU Bachelor of Science in Biology with Chemistry Minor**  
after OTC Associate of Science in Biology

Catalog Year: 2020-2021

**MSU Year 3 Semester 1**

| REQUIREMENT DESCRIPTION | MSU COURSE ID  | TITLE   | CREDIT HOURS |
|-------------------------|--|---|--------------|
| Major Elective          | BMS 307  | Human Anatomy   | 4            |
| Major Requirement       | CHM 342  | Organic Chemistry I                                       | 5            |
| Major Requirement       | <b>Choose one:</b><br>BIO 320<br>OR<br>BIO 312 and 313 | Introduction to Cellular Biology<br>Microbiology with Lab | 4-5          |
| Major Requirement       | BIO 302 ○  | Biology Seminar   | 1            |
| <b>Semester 1 Total</b> |  |   | <b>14-15</b> |

**MSU Year 3 Semester 2**

| REQUIREMENT DESCRIPTION   | MSU COURSE ID   | TITLE  | CREDIT HOURS                             |
|---|---|--|--|
| Major Elective  | BMS 308   | Human Physiology   | 4  |
| Major Elective  | CHM 343 and CHM 345   | Organic Chemistry II and Microscale Organic Chemistry Laboratory | 5  |
| Social/Behavioral Sciences<br><i>9 credit hours</i><br>(Must fulfill 2 disciplines) | <b>Choose one:</b><br>ANT 100<br>ANT 125<br>ANT 303<br>CFD 155                                  | COM 260<br>CRM 210<br>ECO 101<br>ECO 155                         | ECO 165<br>GRY 100<br>HST 103<br>HST 104 |
|   |   | HST 121<br>HST 122<br>MED 120<br>PLN 100                         | PLS 101<br>PLS 205<br>PLS 232<br>PSY 121 |
|   |   | SOC 150<br>SOC 152   |  |
| General Elective **   | Work with your MSU advisor to identify courses that will complement your specific career goals. |  | 3  |
| <b>Semester 2 Total</b>   |   |  | <b>15</b>                                |

**MSU Year 4 Semester 3**

| REQUIREMENT DESCRIPTION   | MSU COURSE ID   | TITLE  | CREDIT HOURS   |
|---|---|--|--|
| Humanities and Fine Arts<br><i>9 credit hours</i><br>(Must fulfill 2 disciplines) | <b>Choose one:</b><br>ARB 101<br>ARB 102<br>ART 115▲<br>ART 200<br>ART 212                      | ART 271<br>ART 272<br>CHI 101<br>CSD 330<br>CSD 331      | ENG 200<br>ENG 203▲<br>ENG 205▲<br>ENG 215▲<br>ENG 282 |
|   |   | ENG 289<br>ENG 340<br>ENG 341<br>ENG 350<br>ENG 351      | ENG 362<br>FRN 101<br>FRN 102<br>GRM 101<br>GRM 102    |
|   |   | ITL 101<br>ITL 102<br>JPN 101<br>JPN 102<br>KOR 101      | KOR 102<br>LLT 121<br>MED 274<br>MUS 100<br>MUS 162*▲  |
|   |   | MUS 175▲<br>MUS 176*▲<br>MUS 178*▲<br>MUS 239<br>MUS 241 | MUS 345<br>MUS 346<br>MUS 347<br>PHI 105<br>PHI 110    |
|   |   | PHI 115<br>PTG 101<br>PTG 102<br>REL 100<br>REL 101      | REL 102<br>REL 210<br>RUS 101<br>RUS 102<br>SPN 101    |
| Major Requirement   | BIO 367 and BIO 368 ○   | General Ecology and Lab                                  | 4  |
| Major Requirement   | CHM 352   | Introduction to Biochemistry                             | 5  |
| General Elective **   | Work with your MSU advisor to identify courses that will complement your specific career goals. |  | 3  |
| <b>Semester 3 Total</b>   |   |  | <b>15</b>  |

**MSU Year 4 Semester 4**

| REQUIREMENT DESCRIPTION   | MSU COURSE ID   | TITLE  | CREDIT HOURS   |
|---|---|--|--|
| General Elective **   | Work with your MSU advisor to identify courses that will complement your specific career goals. |  | 2  |
| General Elective **   | Work with your MSU advisor to identify courses that will complement your specific career goals. |  | 3  |
| Humanities and Fine Arts<br><i>9 credit hours</i><br>(Must fulfill 2 disciplines) | <b>Choose one:</b><br>ARB 101<br>ARB 102<br>ART 115▲<br>ART 200<br>ART 212                      | ART 271<br>ART 272<br>CHI 101<br>CSD 330<br>CSD 331      | ENG 200<br>ENG 203▲<br>ENG 205▲<br>ENG 215▲<br>ENG 282 |
|   |   | ENG 289<br>ENG 340<br>ENG 341<br>ENG 350<br>ENG 351      | ENG 362<br>FRN 101<br>FRN 102<br>GRM 101<br>GRM 102    |
|   |   | ITL 101<br>ITL 102<br>JPN 101<br>JPN 102<br>KOR 101      | KOR 102<br>LLT 121<br>MED 274<br>MUS 100<br>MUS 162*▲  |
|   |   | MUS 175▲<br>MUS 176*▲<br>MUS 178*▲<br>MUS 239<br>MUS 241 | MUS 345<br>MUS 346<br>MUS 347<br>PHI 105<br>PHI 110    |
|   |   | PHI 115<br>PTG 101<br>PTG 102<br>REL 100<br>REL 101      | REL 102<br>REL 210<br>RUS 101<br>RUS 102<br>SPN 101    |
| Major Requirement   | BIO 550   | Statistical Methods for Biologists                       | 3  |
| Public Affairs Capstone Experience  | <b>Choose one:</b><br>BIO 300*<br>BIO 355<br>BIO 367<br>BIO 370<br>BIO 373                      | BIO 398*<br>BIO 399<br>BIO 485<br>BIO 498<br>BIO 499     | BIO 501<br>BIO 505<br>BIO 508<br>BIO 509<br>BIO 511    |
|   |   | BIO 512<br>BIO 520<br>BIO 527<br>BIO 539<br>BIO 547      | BIO 561<br>BIO 573<br>BIO 574<br>BIO 575<br>BIO 576    |
|   |   | BIO 577<br>BIO 578<br>BIO 579<br>BIO 584<br>BIO 589      |  |
| Major Requirement   | BIO 492 ○   | Biology Assessment                                       | 0  |
| <b>Semester 4 Total</b>   |   |  | <b>14</b>  |
| <b>Total Hours at MSU</b>   |   |  | <b>58-59</b>   |
| <b>Total Hours Overall</b>  |   |  | <b>120-123</b>   |

\*\* Electives provide the opportunity to customize your degree program. Some elective credits may or may not be needed to bring total credit hours to a minimum of 120 credit hours and upper division hours (300+) to 40.

○ Fulfills Public Affairs Capstone Experience

\* One credit hour course

▲ May choose only one, falls under MOTR code 'PERF'

This degree is also available as a Bachelor of Arts (BA).  
[Click here to access the Bachelor of Arts Degree Requirements](#)  
**Please consult an MSU transfer advisor to determine your best degree options.**

**This information is provided as a guide only.**

- OTC students are strongly encouraged to meet with their major specific MSU transfer advisor early in their OTC education to discuss the most appropriate OTC coursework for their intended MSU major, MSU degree requirements, etc.
- Students are required to fulfill MSU graduation and GPA requirements to receive a degree and should consult with their MSU advisor and the MSU undergraduate catalog for details, as there may exist pre-requisite requirements as well as periodicity limitations that could affect scheduling sequences.
- Please note that transfer students from Missouri public colleges and universities may follow the general education and general baccalaureate degree requirements in effect at Missouri State when they first enrolled (or re-enrolled after an absence of one calendar year or more) as degree-seeking students at the institutions from which they transferred (e.g., OTC).