# Ozarks Technical Community College

OTC Associate of Science in Biology to MSU Bachelor of Science in Biology with Chemistry Minor, Pre-Health Emphasis

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. Courses are sequenced to provide guidance and to help ensure that prerequisite requirements are met. Catalog Year: 2022-2023. Date Modified: 5.23.22.

MSU Transfer Advisor: Angela Plank, [AngelaPlank@MissouriState.edu](mailto:AngelaPlank@MissouriState.edu), 417-836-6851

Finish in 4 Go Bears Missouri State University

### OTC Year 1 Semester 1

Mathematical Sciences5 hours required for the A.S. in Biology

* OTC Course ID/Title: MTH 138 Pre-Calculus Mathematics
* Credit Hours: 5
* MSU Equivalent: MTH 138
* Meets Core 42: Yes
* MSU Major Requirement: No

Written Communications - 6 credit hours for CORE 42

* OTC Course ID/Title: Choose one: ENG 100 Composition 1 with support, ENG 101 Composition
* Credit Hours: 3-5
* MSU Equivalent: ENG 110
* Meets Core 42: Yes
* MSU Major Requirement: No

Natural Sciences - 7 credit hours for Core 42(Must fulfill 2 disciplines including one course with a lab component)

* OTC Course ID/Title: BIO 160 General Biology 2
* Credit Hours: 4
* MSU Equivalent: BIO 121
* Meets Core 42: Yes
* MSU Major Requirement: Yes

Social/Behavioral Sciences - 6 credit hours required for A.S. in Biology, 9 credit hours required for Core 42

* OTC Course ID/Title: Choose one: ANT 101, ANT 220, COM 150, CRM 210, ECO 270, ECO 27,5 GRY 101, HST 105, HST 106, HST 120, HST 130, PLS 101, PLS 201, PSY 110, PSY 130, SOC 101, SOC 215
* Credit Hours: 3
* MSU Equivalent: Varies
* Meets Core 42: Yes
* MSU Major Requirement: No

Semester 1 Total = 15-17 credit hours

### OTC Year 1 Semester 2

Program Specific Course

* OTC Course ID/Title: BIO 170 General Biology 2
* Credit Hours: 4
* MSU Equivalent: BIO 122
* Meets Core 42: No
* MSU Major Requirement: Yes

Oral Communications - 3 credit hours for Core 42

* OTC Course ID/Title: Choose one: COM 100, COM 105, COM 200
* Credit Hours: 3
* MSU Equivalent: Varies
* Meets Core 42: Yes
* MSU Major Requirement: No

Natural Sciences – 7 credit hours for Core 42 (Must fulfill 2 disciplines including one course with a lab component)

* OTC Course ID/Title: CHM 160 and CHM 161 General Chemistry 1 and Lab
* Credit Hours: 5
* MSU Equivalent: CHM 160 and CHM 161
* Meets Core 42: Yes
* MSU Major Requirement: Yes

Recommended Institutional Elective - 9 hours required for A.S. in Biology

* OTC Course ID/Title: Choose any BIO course with advisor approval.
* Credit Hours: 3
* MSU Equivalent: Varies
* Meets Core 42: No
* MSU Major Requirement: Yes

Semester 2 Total = 15 credit hours

### OTC Year 2 Semester 3

Social/Behavioral Sciences - 6 credit hours required for A.S. in Biology, 9 credit hours required for Core 42

* OTC Course ID/Title: Choose one: PLS 101, HST 120, HST 130
* Credit Hours: 3
* MSU Equivalent: Varies
* Meets Core 42: Yes
* MSU Major Requirement: No

Program Specific Course

* OTC Course ID/Title: PHY 120 General Physics 1
* Credit Hours: 4
* MSU Equivalent: PHY 123
* Meets Core 42: No
* MSU Major Requirement: Yes

Recommended Institutional Elective - 9 hours required for A.S. in Biology

* OTC Course ID/Title: MTH 140 Analytic Geometry and Calculus I
* Credit Hours: 5
* MSU Equivalent: MTH 261
* Meets Core 42: No
* MSU Major Requirement: Yes

Program Specific Course

* OTC Course ID/Title: BIO 250 Genetics
* Credit Hours: 4
* MSU Equivalent: BIO 235 and BIO 236
* Meets Core 42: No
* MSU Major Requirement: Yes

Semester 3 Total = 16 credit hours

### OTC Year 2 Semester 4

Recommended Institutional Elective - 9 hours required for A.S. in Biology

* OTC Course ID/Title: Choose any BIO course with advisor approval.
* Credit Hours: 3
* MSU Equivalent: Varies
* Meets Core 42: No
* MSU Major Requirement: Yes

Program Specific Course

* OTC Course ID/Title: CHM 170 and CHM 171, General Chemistry 2 and Lab
* Credit Hours: 5
* MSU Equivalent: CHM 170and CHM 171
* Meets Core 42: No
* MSU Major Requirement: Yes

Written Communications - 6 credit hours for CORE 42

* OTC Course ID/Title: Choose one: ENG 120 Composition 2, ENG 150 Technical Writing
* Credit Hours: 3
* MSU Equivalent: ENG 210, ENG 211
* Meets Core 42: Yes
* MSU Major Requirement: No

Program Specific Course

* OTC Course ID/Title: PHY 130 General Physics 2
* Credit Hours: 4
* MSU Equivalent: PHY 124
* Meets Core 42: No
* MSU Major Requirement: Yes

Humanities and Fine Arts - credit hours required for Core 42(Must fulfill 2 disciplines)

* OTC Course ID/Title: Choose one: ART 100, ART 101, ART 105, ART 120▲, ASL 101, ASL 102, CHN 101, ENG 180, ENG 240, ENG 241, ENG 260, ENG 265, ENG 270, ENG 271, FRN 101, FRN 102, GRM 101, GRM 102, HUM 101, MUS 101, MUS 105, MUS 106, MUS 110, MUS 235\*▲, PHL 101, PHL 105, REL 100, REL 101,

REL 102, SPN 101, SPN 102, THR 101

* Credit Hours: 3
* MSU Equivalent: Varies
* Meets Core 42: Yes
* MSU Major Requirement: No

Semester 4 Total = 18  
Total Hours at OTC = 64-66  
Total Hours Applied Toward MSU Major Requirements: 41

\* One credit hour course

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

# Missouri State University

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

Date Modified: 5.23.22  
MSU Transfer Advisor: Angela Plank, [AngelaPlank@MissouriState.edu](mailto:AngelaPlank@MissouriState.edu), 417-836-6851  
  
Finish in 4 Go Bears Missouri State University

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

Catalog Year: 2022-23

### MSU Year 3 Semester 1

Major Requirement

* MSU Course ID/Title: CHM 342 Organic Chemistry 1
* Credit hours: 5

Major Requirement

* MSU Course ID/Title: Choose one: BIO 320 Introduction to Cellular Biology OR BIO 312 and 313 Microbiology with Lab
* Credit hours: 4-5

Major Requirement

* MSU Course ID/Title: Choose one: BIO 302 🔾 Biology Seminar
* Credit hours: 1

General Elective\*\*

* MSU Course ID/Title: Work with your MSU advisor to identify courses that will complement your specific career goals.
* Credit hours: 3

Semester 1 Total: 13-14 Credit Hours

### MSU Year 3 Semester 2

Major Elective

* MSU Course ID/Title: CHM 343 Organic Chemistry 2 and CHM 345 Microscale Organic Chemistry Laboratory
* Credit hours: 5

Social/Behavioral Sciences – 9 credit hours (Must fulfill 2 disciplines)

* OTC Course ID/Title: Choose one: ANT 100, ANT 125, ANT 303, CFD 155, COM 260, CRM 210, ECO 101, ECO 155, ECO 165, GRY 100, HST 103, HST 104, HST 121, HST 122, MED 120, PLN 100, PLS 101, PLS 205, PLS 232, PSY 121, SOC 150, SOC 152
* Credit Hours: 3

General Elective \*\*

* OTC Course ID/Title: Choose one: Work with your MSU advisor to identify courses that will complement your specific career goals.
* Credit Hours: 7

Semester 2 Total: 15 Credit Hours

### MSU Year 4 Semester 3

Humanities and Fine Arts - 9 credit hours (Must fulfill 2 disciplines)

* MSU Course ID/Title: Choose one: ARB 101, ARB 102, ART 115▲, ART 200, ART 212, ART 271, ART 272, CHI 101, CSD 330, CSD 331, ENG 200, ENG 203▲,ENG 205▲, ENG 215▲, ENG 282, ENG 289, ENG 340, ENG 341, ENG 350, ENG 351, ENG 362, FRN 101, FRN 102, GRM 101, GRM 102, ITL 101, ITL 102, JPN 101, JPN 102, KOR 101, KOR 102, LLT 121, MED 274, MUS 100, MUS 162\*▲,MUS 175▲, MUS 176\*▲, MUS 178\*▲, MUS 239, MUS 241, MUS 345, MUS 346, MUS 347, PHI 105, PHI 110, PHI 115, PTG 101, PTG 102, REL 100, REL 101, REL 102, REL 210, RUS 101, RUS 102, SPN 101, SPN 102, THE 101
* Credit hours: 3

Major Requirement

* MSU Course ID/Title: BIO 367 and BIO 368 🔾 General Ecology and Lab
* Credit hours: 4

Major Requirement

* MSU Course ID/Title: CHM 352 Introduction to Biochemistry
* Credit hours: 5

General Elective\*\*

* MSU Course ID/Title: Work with your MSU advisor to identify courses that will complement your specific career goals.
* Credit hours: 3

Semester 3 Total: 14 Credit Hours

### MSU Year 4 Semester 4

General Elective\*\*

* MSU Course ID/Title: Work with your MSU advisor to identify courses that will complement your specific career goals.
* Credit hours: 2

General Elective\*\*

* MSU Course ID/Title: Work with your MSU advisor to identify courses that will complement your specific career goals.
* Credit hours: 3

Humanities and Fine Arts 9 credit hours (Must fulfill 2 disciplines)

* MSU Course ID/Title: Choose two: ARB 101, ARB 102, ART 115▲, ART 200, ART 212▲, ART 271, ART 272, CHI 101, CSD 330, CSD 331, ENG 200, ENG 203▲,ENG 205▲, ENG 215▲, ENG 282, ENG 289, ENG 340, ENG 341, ENG 350, ENG 351, ENG 362, FRN 101, FRN 102, GRM 101, GRM 102, ITL 101, ITL 102, JPN 101, JPN 102, KOR 101, KOR 102, LLT 121, MED 274, MUS 100, MUS 162\*▲, MUS 175▲, MUS 176\*▲, MUS 178\*▲, MUS 239, MUS 241, MUS 345, MUS 346, MUS 347, PHI 105, PHI 110, PHI 115, PTG 101, PTG 102, REL 100, REL 101, REL 102, REL 210, RUS 101, RUS 102, SPN 101, SPN 102, THE 101
* Credit hours: 3

Major Requirement

* MSU Course ID/Title: BIO 550 Statistical Methods for Biologists
* Credit hours: 3

Public Affairs Capstone Experience

* MSU Course ID/Title: Choose one: BIO 300\*, BIO 355, BIO 367, BIO 370, BIO 373, BIO 398\*, BIO 399, BIO 485, BIO 498, BIO 499, BIO 501, BIO 505, BIO 508, BIO 509, BIO 511, BIO 512, BIO 520, BIO 527, BIO 539, BIO 547, BIO 561, BIO 573, BIO 574, BIO 575, BIO 576, BIO 577, BIO 578, BIO 579, BIO 584, BIO 589

Major Requirement

* MSU Course ID/Title: Choose one: BIO 492🔾 Biology Assessment
* Credit hours: 0

Credit hours: 3

Semester 4 Total: 14 Credit Hours  
Total Hours at MSU: 56-57  
Total Hours Overall: 120-123

\*\* 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.

\* One credit hour course ▲ May choose only one, falls under MOTR code 'PERF' 🔾 Fulfills Public Affairs Capstone Experience

This degree is also available as a Bachelor of Arts (BA). [Click here to access the Bachelor of Arts Degree Requirements](https://www.missouristate.edu/registrar/catalog/BArequirements.htm)   
Please consult with 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).