

Date Modified:	5.23.22
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# 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, Pre-Health Emphasis**

Catalog Year: 2022-2023



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> <i>5 hours required for the A.S. in Biology</i>	MTH 138	Pre-Calculus Mathematics	5	MTH 138	✓					
<b>Written Communications</b> <i>6 credit hours for Core 42</i>	<b>Choose one:</b>		3-5	ENG 110	✓					
	ENG 100 ENG 101	Composition I with Support Composition I								
<b>Natural Sciences</b> <i>7 credit hours for Core 42</i>  (Must fulfill 2 disciplines including one course with a lab component)	BIO 160	General Biology I	4	BIO 121	✓	✓				
<b>Social/ Behavioral Sciences</b> <i>6 credit hours required for A.S. in Biology</i> <i>9 credit hours required for Core 42</i>	<b>Choose one:</b>		3	Varies	✓					
	ANT 101	CRM 210					GRY 101	HST 120	PLS 201	SOC 101
	ANT 220	ECO 270					HST 105	HST 130	PSY 110	SOC 215
	COM 150	ECO 275					HST 106	PLS 101	PSY 130	
<b>Semester 1 Total</b>			<b>15-17</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	4	BIO 122		✓
<b>Oral Communications</b> <i>3 credit hours for Core 42</i>	<b>Choose one:</b>		3	Varies	✓	
	COM 100	COM 105 COM 200				
<b>Natural Sciences</b> <i>7 credit hours for Core 42</i>  (Must fulfill 2 disciplines including one course with a lab component)	CHM 160 and CHM 161	General Chemistry I and Lab	5	CHM 160 and CHM 161	✓	✓
<b>Recommended Institutional Elective</b> <i>9 hours required for A.S. in Biology</i>	Choose any BIO course with advisor approval.		3	Varies		✓
<b>Semester 2 Total</b>			<b>15</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> <i>6 credit hours required for A.S. in Biology</i> <i>9 credit hours required for Core 42</i>	<b>Choose one:</b>		3	Varies	✓	
	PLS 101	HST 120 HST 130				
<b>Program Specific Course</b>	PHY 120	General Physics I	4	PHY 123		✓
<b>Recommended Institutional Elective</b> <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	4	BIO 235 and BIO 236		✓
<b>Semester 3 Total</b>			<b>16</b>			

### OTC Year 2 Semester 4

REQUIREMENT DESCRIPTION	OTC COURSE ID	TITLE	CREDIT HOURS	MSU EQUIVALENT	MEETS CORE 42	MSU MAJOR REQUIREMENT						
<b>Recommended Institutional Elective</b> <i>9 hours required for A.S. in Biology</i>	Choose any BIO course with advisor approval.		3	Varies		✓						
<b>Program Specific Course</b>	CHM 170 and CHM 171	General Chemistry II and Lab	5	CHM 170 and CHM 171		✓						
	<b>Choose one:</b>		3	ENG 210 ENG 221	✓							
<b>Written Communications</b> <i>6 credit hours for Core 42</i>	ENG 102 ENG 150	Composition II Technical Writing										
<b>Program Specific Course</b>	PHY 130	General Physics II	4	PHY 124		✓						
<b>Humanities and Fine Arts</b> <i>9 credit hours required for Core 42</i>  (Must fulfill 2 disciplines)	<b>Choose one:</b>		3	Varies	✓							
	ART 100	ASL 101					ENG 240	ENG 270	GRM 101	MUS 105	PHL 101	REL 102
	ART 101	ASL 102					ENG 241	ENG 271	GRM 102	MUS 106	PHL 105	SPN 101
	ART 105	CHN 101					ENG 260	FRN 101	HUM 101	MUS 110	REL 100	SPN 102
	ART 120▲	ENG 180					ENG 265	FRN 102	MUS 101	MUS 235*▲	REL 101	THR 101
<b>Semester 4 Total</b>			<b>18</b>									
<b>Total Hours at OTC</b>			<b>64-66</b>	<i>Total Hours Applied Toward MSU Major Requirements:</i>		41						

\* One credit hour course

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

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

**Catalog Year: 2022-2023**

**MSU Year 3 Semester 1**

REQUIREMENT DESCRIPTION	MSU COURSE ID	TITLE	CREDIT HOURS
Major Requirement	CHM 342	Organic Chemistry I	5
Major Requirement	<b>Choose one:</b> BIO 320 <b>OR</b> BIO 312 and 313	Introduction to Cellular Biology Microbiology with Lab	4-5
Major Requirement	BIO 302 ○	Biology Seminar	1
General Elective **	Work with your MSU advisor to identify courses that will complement your specific career goals.		3
<b>Semester 1 Total</b>			<b>13-14</b>

**MSU Year 3 Semester 2**

REQUIREMENT DESCRIPTION	MSU COURSE ID	TITLE	CREDIT HOURS
Major Elective	CHM 343 and CHM 345	Organic Chemistry II and Microscale Organic Chemistry Laboratory	5
Social/Behavioral Sciences <i>9 credit hours</i> (Must fulfill 2 disciplines)	<b>Choose one:</b> ANT 100 ANT 125 ANT 303 CFD 155	COM 260 CRM 210 ECO 101 ECO 155	3
		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	
General Elective **	Work with your MSU advisor to identify courses that will complement your specific career goals.		7
<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 <i>9 credit hours</i> (Must fulfill 2 disciplines)	<b>Choose one:</b> ARB 101 ARB 102 ART 115▲ ART 200 ART 212	ART 271 ART 272 CHI 101 CSD 330 CSD 331	3
	ENG 200 ENG 203▲ ENG 205▲ ENG 215▲ ENG 282	ENG 289 ENG 340 ENG 341 ENG 350 ENG 351	
	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	
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.		2
<b>Semester 3 Total</b>			<b>14</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 <i>9 credit hours</i> (Must fulfill 2 disciplines)	<b>Choose one:</b> ARB 101 ARB 102 ART 115▲ ART 200 ART 212	ART 271 ART 272 CHI 101 CSD 330 CSD 331	3
	ENG 200 ENG 203▲ ENG 205▲ ENG 215▲ ENG 282	ENG 289 ENG 340 ENG 341 ENG 350 ENG 351	
	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	
Major Requirement	BIO 550	Statistical Methods for Biologists	3
Public Affairs Capstone Experience	<b>Choose one:</b> BIO 300* BIO 355 BIO 367 BIO 370 BIO 373	BIO 398* BIO 399 BIO 485 BIO 498 BIO 499	3
		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	BIO 492 ○	Biology Assessment	0
<b>Semester 4 Total</b>			<b>14</b>
<b>Total Hours at MSU</b>			<b>56-57</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).