

Date Modified:	5.11.22
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# OZARKS TECHNICAL COMMUNITY COLLEGE

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

Catalog Year: 2022-2023



## OTC Associate of Science in Computer Science to MSU Bachelor of Science in Computer Science - Software Development Option with Cybersecurity Minor

The following is a guide to graduation with completion of OTC's Associate of Science and  
MSU's Bachelor of Science in Computer Science.  
The B.S. degree may be completed on campus.

*This 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>Program Specific Course</b>	CIS 120	Introduction to Computer Programming	3	CSC 130		✓
<b>Written Communications</b> <i>6 credit hours total required for CORE 42</i>	<b>Choose one:</b>		3-5	ENG 110	✓	
	ENG 100 ENG 101	Composition I with Support Composition I				
<b>Mathematical Sciences</b> <i>3 credit hours total required for CORE 42</i>	MTH 140 ◊	Analytic Geometry and Calculus I	5	MTH 261	✓	✓
<b>Program Specific Course</b>	CIS 101	Technology and Digital Literacy	3	ITC 200		
<b>Semester 1 Total</b>			<b>14-16</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>	<b>Choose one: ↕</b>		3	ITC 000		
	CIS 150 CIS 170	C# Programming I Java Programming I				
<b>Oral Communications</b> <i>3 credit hours total required for CORE 42</i>	<b>Choose one:</b>		3	Varies	✓	
	COM 100	COM 105 COM 200				
<b>Program Specific Course</b>	MTH 141 ◊	Analytic Geometry and Calculus II	5	MTH 280	✓	✓
<b>Program Specific Course</b>	CIS 130	Web Site Development I	3	ITC 205		
<b>Program Specific Elective</b> <i>3 hours required for the A.S. Computer Science</i>	<b>Choose one: ◊</b>		3	MTH 314 MTH 315	✓	✓
	MTH 214 MTH 215	Discrete Mathematics Algebraic Structures				
<b>Semester 2 Total</b>			<b>17</b>			

### OTC Year 2 Semester 3

REQUIREMENT DESCRIPTION	OTC COURSE ID/TITLE		CREDIT HOURS	MSU EQUIVALENT	MEETS CORE 42	MSU MAJOR REQUIREMENT
<b>Program Specific Course</b>	<b>Choose one: ↕</b>		3	CSC 131		✓
	CIS 151 CIS 171	C# Programming II Java Programming II				
<b>Program Specific Course</b>	CSC 210	Data Structures	4	CSC 232		✓
<b>Program Specific Course</b>	CIS 250	Database and Query	3	ITC 295		
<b>Program Specific Course</b>	CIS 131	Web Site Development II	3	CSC 365		✓
<b>Natural Sciences</b> <i>7 credit hours total required for CORE 42</i> (Must fulfill 2 disciplines including one course with a lab component)	BIO 160	General Biology I	4	BIO 121	✓	✓
<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>Natural Sciences</b> <i>7 credit hours total required for CORE 42</i> (Must fulfill 2 disciplines including one course with a lab component)	<b>Choose one:</b>		4-5	PHY 123 PHY 203	✓	✓
	PHY 120 PHY 220	General Physics I Physics Engrs & Scientists I				
<b>Social/Behavioral Sciences</b> <i>9 credit hours total required for CORE 42</i> (Must fulfill 2 disciplines)	<b>Choose one:</b>		3	HST 121 HST 122 PLS 101	✓	
	HST 120 HST 130 PLS 101	U.S. History I: to 1865 U.S. History II: 1865-Present American Government and Politics				
<b>Program Specific Course</b>	CIS 260	Software Engineering Project	3	CSC 000		
<b>Program Specific Course</b>	CSC 244	Computer Architecture	3	CSC 244		
<b>Semester 4 Total</b>			<b>13-14</b>			
<b>Total Hours at OTC</b>			<b>61-64</b>	<i>Total Hours Applied Toward MSU Major/Minor Requirements:</i>		34

\* One credit hour course

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

□ Must be taken with CHM 161 to count as a lab course. In order to fulfill the Core 42 Natural Science requirement, students must complete at least one lab course.

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**MSU Bachelor of Science in Computer Science - Software Development**  
after OTC Associate of Arts in General Studies

**MSU Year 3 Semester 1**

REQUIREMENT DESCRIPTION	MSU COURSE ID/TITLE	CREDIT HOURS
<b>Humanities and Fine Arts</b> <i>9 credit hours required for CORE 42</i> (Must fulfill 2 disciplines)	<b>Choose one:</b> ARB 101 ART 271 ENG 200 ENG 289 ENG 362 ITL 101 KOR 102 MUS 175▲ MUS 345 PHI 115 REL 102 SPN 102 ARB 102 ART 272 ENG 203▲ ENG 340 FRN 101 ITL 102 LLT 121 MUS 176*▲ MUS 346 PTG 101 REL 210 THE 101 ART 115▲ CHI 101 ENG 205▲ ENG 341 FRN 102 JPN 101 MED 274 MUS 178*▲ MUS 347 PTG 102 REL 210 RUS 101 ART 200 CSD 330 ENG 215▲ ENG 350 GRM 101 JPN 102 MUS 100 MUS 239 PHI 105 REL 100 RUS 102 ART 212▲ CSD 331 ENG 282 ENG 351 GRM 102 KOR 101 MUS 162*▲ MUS 241 PHI 110 REL 101 SPN 101	3
<b>Social/Behavioral Sciences</b> <i>9 credit hours required for CORE 42</i> (Must fulfill 2 disciplines)	<b>Choose one:</b> ECO 165 Principles of Microeconomics PSY 121 Introductory Psychology	3
<b>Written Communication</b> <i>6 credit hours required for CORE 42</i>	ENG 321 Writing II: Beginning Technical Writing	3
<b>Major Requirement</b>	CSC 482 Seminar in Computer Science	1
<b>Major Requirement</b>	CSC 335 △ Database System Concepts	3
<b>Cybersecurity Minor Requirement</b>	ITC 330 Introduction to Networking	3
<b>Semester 1 Total</b>		<b>16</b>

**MSU Year 3 Semester 2**

REQUIREMENT DESCRIPTION	MSU COURSE ID/TITLE	CREDIT HOURS
<b>Major Requirement</b>	CSC 388 △ Introduction to Secure Computing	3
<b>Humanities and Fine Arts</b> <i>9 credit hours required for CORE 42</i> (Must fulfill 2 disciplines)	<b>Choose one:</b> ARB 101 ART 271 ENG 200 ENG 289 ENG 362 ITL 101 KOR 102 MUS 175▲ MUS 345 PHI 115 REL 102 SPN 102 ARB 102 ART 272 ENG 203▲ ENG 340 FRN 101 ITL 102 LLT 121 MUS 176*▲ MUS 346 PTG 101 REL 210 THE 101 ART 115▲ CHI 101 ENG 205▲ ENG 341 FRN 102 JPN 101 MED 274 MUS 178*▲ MUS 347 PTG 102 REL 210 RUS 101 ART 200 CSD 330 ENG 215▲ ENG 350 GRM 101 JPN 102 MUS 100 MUS 239 PHI 105 REL 100 RUS 102 ART 212▲ CSD 331 ENG 282 ENG 351 GRM 102 KOR 101 MUS 162*▲ MUS 241 PHI 110 REL 101 SPN 101	3
<b>Major Requirement</b>	CSC 360 Operating Systems	3
<b>Major Elective</b>	Choose one class from CSC 300 and CSC courses numbered higher than 303, with no more than three hours in CSC 399 and no more than three hours in CSC 596. <i>Courses not eligible: CSC 500, 505, and 510</i>	3
<b>Major Requirement</b>	CSC 455 Software Quality Assurance and Project Management	3
<b>Semester 2 Total</b>		<b>15</b>

**MSU Year 4 Semester 3**

REQUIREMENT DESCRIPTION	MSU COURSE ID/TITLE	CREDIT HOURS
<b>Cybersecurity Minor Requirement</b>	ITC 560 Fundamentals of Cybersecurity	3
<b>Major Elective</b>	Choose one class from CSC 300 and CSC courses numbered higher than 303, with no more than three hours in CSC 399 and no more than three hours in CSC 596. <i>Courses not eligible: CSC 500, 505, and 510</i>	3
<b>Humanities and Fine Arts</b> <i>9 credit hours required for CORE 42</i> (Must fulfill 2 disciplines)	<b>Choose one:</b> ARB 101 ART 271 ENG 200 ENG 289 ENG 362 ITL 101 KOR 102 MUS 175▲ MUS 345 PHI 115 REL 102 SPN 102 ARB 102 ART 272 ENG 203▲ ENG 340 FRN 101 ITL 102 LLT 121 MUS 176*▲ MUS 346 PTG 101 REL 210 THE 101 ART 115▲ CHI 101 ENG 205▲ ENG 341 FRN 102 JPN 101 MED 274 MUS 178*▲ MUS 347 PTG 102 REL 210 RUS 101 ART 200 CSD 330 ENG 215▲ ENG 350 GRM 101 JPN 102 MUS 100 MUS 239 PHI 105 REL 100 RUS 102 ART 212▲ CSD 331 ENG 282 ENG 351 GRM 102 KOR 101 MUS 162*▲ MUS 241 PHI 110 REL 101 SPN 101	3
<b>Social/Behavioral Sciences</b> <i>9 credit hours required for CORE 42</i> (Must fulfill 2 disciplines)	<b>Choose one (not chosen in prior semester):</b> ECO 165 Principles of Microeconomics PSY 121 Introductory Psychology	3
<b>Major Requirement</b>	CSC 565 Computer Networks	3
<b>Software Development Option Requirement</b>	<b>Choose one:</b> MKT 350 MGT 340 COM 315 PSY 305 PSY 481	3
<b>Semester 3 Total</b>		<b>18</b>

**MSU Year 4 Semester 4**

REQUIREMENT DESCRIPTION	MSU COURSE ID/TITLE	CREDIT HOURS
<b>Major Requirement</b>	CSC 450 Introduction to Software Engineering	4
<b>Software Development Option Requirement</b>	Choose one class from CSC courses numbered 500 or higher, excluding CSC 596. <i>Courses not eligible: CSC 500, 505, and 510</i>	3
<b>Major Elective</b>	Choose one class from CSC 300 and CSC courses numbered higher than 303, with no more than three hours in CSC 399 and no more than three hours in CSC 596. <i>Courses not eligible: CSC 500, 505, and 510</i>	3
<b>Cybersecurity Minor Requirement</b>	ITC 564 Introduction to Ethical Hacking	3
<b>Cybersecurity Minor Requirement</b>	ITC 583 Cloud Computing	3
<b>Semester 4 Total</b>		<b>16</b>
<b>Total Hours at MSU</b>		<b>65</b>
<b>Total Hours Overall</b>		<b>126-129</b>

Successful completion of the computer science major field test (MFT) with at least a score of 140 is required.

\*\* 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.

△ Counts for Cybersecurity minor  
CSC 244 (ITC 235), CSC 388 (ITC 560), CSC 335 (ITC 295)

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

\* One credit hour course

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).