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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: 2019-2020

## **OTC Associate of Science in Computer Science to MSU Bachelor of Science in Computer Science - Computer Science Option**

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

The B.S. in Computer Science may be completed on campus only.

OTC Year 1 Semester 1

REQUIREMENT DESCRIPTION	OTC COURSE ID	TITLE	CREDIT HOURS	MSU EQUIVALENT	MEETS CORE 42	MSU MAJOR REQUIREMENT
Program Specific Course	CIS 120	Introduction to Computer Programming	3	CSC 130		✓
	Choose one:					
Written Communications         ENG 100           6 credit hours required for Core 42         ENG 101		Composition I with Support Composition I	3-5	ENG 110	✓	
Mathematical Sciences 3 credit hours	MTH 140 ♦	Analytic Geometry and Calculus I	5	MTH 261	✓	✓
Program Specific Course	CIS 101	Technology and Digital Literacy	3	ITC 200		
		Semester 1 Total	14-16			

REQUIREMENT DESCRIPTION	OTC COURSE ID	TITLE			CREDIT	MSU	MEETS	MSU MAJOR
	Choose one:	1112	HOURS	ITC 266	CORE 42	REQUIREMENT		
Program Specific Course	CIS 150 CIS 170	C# Programming I Java Programming I			3	ITC 260/ CSC 131		
	Choose one:	*						
Oral Communications 3 credit hours	COM 100 COM 105 COM 200	Introduction to Comr Public Speaking Interpersonal Comm		3	GEC 103 COM 115 COM 205	✓		
Program Specific Course	MTH 141 �	Analytic Geometry ar	Analytic Geometry and Calculus II					✓
Program Specific Course	CIS 130	Web Site Developme	Web Site Development I					
	Choose one: ♦							
Program Specific Elective 6 hours required for the A.S. Computer Science	CIS 125 CIS 139 CIS 150 CIS 151	CIS 170 CIS 171 CIS 201 CIS 220	CIS 222 CIS 230 CIS 235 CIS 239	CIS 290 CSC 140 MTH 130 <i>or higher</i>	3-5	Varies		
	•			Semester 2	Total 17-19			

OTC Year 2 Semester 3							MEETS	
REQUIREMENT DESCRIPTION	OTC COURSE ID	TITLE	TITLE					MSU MAJOR REOUIREMENT
	Choose one: >		HOURS	EQUIVALENT	CORE 42			
Program Specific Course	CIS 151 CIS 171	C# Programming II Java Programming II			3	ITC 270/ CSC 131		✓
Program Specific Course	CSC 210	Data Structures			4	CSC 232		✓
Program Specific Course	CIS 250	Database and Query			3	ITC 295		
Program Specific Course	CIS 131	Web Site Development	п		3	CSC 365		✓
Natural Sciences	Choose one:	<b>'</b>						
7 credit hours  (Must fulfill 2 disciplines including one course with a lab component)	BIO 160	CHM 101	PHY 110	CHM 160	4	Varies	✓	✓
·				Semester 3 To	al 17			

REQUIREMENT DESCRIPTION	OTC COURSE ID	TITLE		CREDIT	MSU	MEETS	MSU MAJOR	
Natural Sciences 7 credit hours  (Must fulfill 2 disciplines including one course with a lab component)	PHY 220	Physics Engrs & Scie	entists I	HOURS 5	PHY 203	CORE 42  ✓	REQUIREMENT	
Social/Behavioral Sciences								
9 credit hours (Must fulfill 2 disciplines)	HST 120 PLS 101	U.S. History I: to 186 American Governme		3	HST 121 PLS 101	✓		
(Hust fullili 2 disciplines)								
Program Specific Course	CIS 260	Software Engineering	g Project		3	CSC 450		✓
	Choose one: ♦							
CIS 125 Program Specific Elective CIS 139	CIS 125	CIS 170	CIS 222	CIS 290				
	CIS 139	CIS 171	CIS 230	CSC 140	3-5	Varies		
	CIS 150	CIS 201	CIS 235	MTH 130 or higher				
	CIS 151	CIS 220	CIS 239	3 -				
Semester 4 Tota Total Hours at OTC						Total Hours	s Applied Toward	35
						8 MSU Major Requirements.		33

- \* One credit hour course
- ♦ If CIS 150 is a program selection, CIS 170 or CIS 171 can be taken as an elective. If CIS 170 is a program selection, CIS 150 or 151 may be taken as an elective.
- ♦ Counts toward a minor in Mathematics



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Catalog Year: 2019-2020

### **MSU Bachelor of Science in Computer Science - Computer Science Option**

MSU Year 3 Semester 1

# after OTC Associate of Science in Computer Science

REQUIREMENT DESCRIPTION	MSU COURSE ID	TITLE	CREDIT HOURS							
	Choose one:									
Humanities and Fine Arts 9 credit hours required for Core 42 (Must fulfill 2 disciplines)	ARB 101 ART 27: ARB 102 ART 27: ART 115▲ CHI 101 ART 200 CSD 33: ART 212▲ CSD 33:	ENG 200 ENG 289 ENG 362 ITL 101 KOR 102 MUS 175 MUS 345 PHI 115 REL 102 SPN 102 ENG 203 MENG 340 FRN 101 ITL 102 LLT 121 MUS 176 MUS 346 PTG 101 REL 210 THE 101 ENG 205 MENG 341 FRN 102 JPN 101 MED 274 MUS 178 MENG 347 PTG 102 RUS 101 ART 212 ENG 215 MENG 350 GRM 101 JPN 102 MUS 100 MUS 239 PHI 105 REL 100 RUS 102 ENG 282 ENG 351 GRM 102 KOR 101 MUS 162 MENG 241 PHI 110 REL 101 SPN 101	3							
	Choose one:	Choose one:								
Written Communication 6 credit hours required for Core 42	ENG 210 ENG 221	Writing II: Writing Across the Disciplines Writing II: Writing for the Professions	3							
Major Requirement	CSC 335	Database System Concepts								
Major Requirement	CSC 338	Parallel and Distributed Computing	2							
Major Requirement	CSC 344	Computer Systems Fundamentals	3							
	•	Semester 1 Total	14							

#### MSU Year 3 Semester 2

REQUIREMENT DESCRIPTION	MSU COURSE ID	TITLE					CREDIT HOURS
Social/Behavioral Sciences 9 credit hours required for Core 42	Choose one: ANT 100	COM 260	ECO 165	HST 121	PLS 101	SOC 150	2
(Must fulfill 2 disciplines)	ANT 125 ANT 303 CFD 155	CRM 210 ECO 101 ECO 155	GRY 100 HST 103 HST 104	HST 122 MED 120 PLN 100	PLS 205 PLS 232 PSY 121	SOC 152	3
Major Requirement	CSC 388	Introduction to Se	cure Computing				2
Major Requirement	MTH 314	Discrete Mathema	tics				3
	Choose one:	<u>'</u>					
Computer Science Option Requirement 5 credit hours required	BIO 121 BMS 110 and 111 CHM 116 and 117	GLG	1 160 and 161 110 135	GRY 142 PHY 204 MTH cours	es numbered 302 or highe	r that count toward the Math Major	3
Major Elective	Choose one class from	CSC 300 and CSC cou	rses numbered higher than	303, with no more than th	ree hours in CSC 399 and	no more than three hours in CSC 596.	3
						Semester 2 Total	14

# MSII Voor 4 Somester 3

MSU fear 4 Semester 3			AD						
REQUIREMENT DESCRIPTION	MSU COURSE ID	TITLE	CREDIT HOURS						
	Choose one:								
Humanities and Fine Arts 9 credit hours required for Core 42 (Must fulfill 2 disciplines)	ARB 101 ART 271 ARB 102 ART 272 ART 115▲ CHI 101 ART 200 CSD 330 ART 212▲ CSD 331	ENG 200	3						
Major Requirement	CSC 333	SC 333 Language and Machines							
Major Elective	Choose one class from C	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.							
Major Requirement	CSC 325	CSC 325 Algorithms and Advanced Data Structures							
General Elective **	Work with your MSU adv	sor to identify a MOTR coded course that will complement your specific career goals.	3						
	1	Semester 3 Total	14						

QUIREMENT DESCRIPTION	MSU COURSE ID	TITLE										CREDIT HOURS
	Choose one:											
umanities and Fine Arts credit hours  fust fulfill 2 disciplines)	ARB 101 ART 2 ARB 102 ART 2 ART 115 ▲ CHI 1 ART 200 CSD 3 ART 212 ▲ CSD 3	72 ENG 203▲ 01 ENG 205▲ 30 ENG 215▲	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 A MUS 176 * A MUS 178 * A 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 ART 212	3
ajor Elective	Choose one class fr	om CSC 300 and C	SC courses nu	ımbered high	er than 303, v	vith no more th	nan three hours	in CSC 399 a	and no more t	than three hou	irs in CSC 596.	3
ajor Requirement	MTH 345	MTH 345 Statistics for Scientists and Engineers								3		
omputer Science Option Requirement credit hours required	Choose from MTH	Choose from MTH courses numbered 302 or higher that count toward the Math major (will also count toward the Math Minor).								3		
ocial/Behavioral Sciences credit hours flust fulfill 2 disciplines)	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		3
ajor Requirement	CSC 482	Seminar in	Computer Sci	ence								1
											nester 4 Total	16
											Hours at MSU Hours Overall	58 120-126

<sup>\*\*</sup> 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.

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

## 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,
- 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).