

Program Name: BS Applied Computer Science			Program Name: BA Computer Science		
Becker College			Assumption University		
Required (Core) Courses in the Major Total # courses required = 19			Required (Core) Courses in the Major Total # courses required = 15		
Required Courses <u>with</u> an Equivalent Course at the Receiving Institution			Equivalent Courses at Receiving Institution		
<i>Course Number</i>	<i>Course Title</i>	<i>Credit Hours</i>	<i>Course Number</i>	<i>Course Title</i>	<i>Credit Hours</i>
CPTR1100	Computer Programming I	3	CSC-117	Introduction to Programming	3
CPTR1400	Computer Programming II	3	CSC-250	Intermediate Programming	3
CPTR2000	Systems and Architectures	3	CSC-231	Computer Architecture/Assembly Programming	3
CPTR2400	Database Management	3	CSC-321	Database Management Systems	3
CPTR2300	Data Structures	3	CSC-305	Data Structures	3
CPTR4850	Artificial Intelligence	3	CSC-325	Artificial Intelligence [Not required in AU's CSC Major. Credit as a CSC Major Elective.]	3
MATH2202	Calculus I	3	MAT-117	Calculus I	3
MATH2302	Calculus II	3	MAT-118	Calculus II	3
MATH2400	Discrete Mathematics	3	MAT-202	Discrete Structures	3
MATH3305	Linear Algebra	3	MAT-203	Linear Algebra [Not required in AU's CSC Major. Credit as a General Elective.]	3
MGMT1000	Introduction to Business Models	3	MGT-100	Introduction to Management [Not required in AU's CSC Major. Credit as a General Elective.]	3
MGMT1805	Intro to Project Management	3	MGT-102	Introduction to Organizational Behavior [Not required in AU's CSC Major. Credit as a General Elective.]	3
Sub Total Required Credits with Course Equivalents		36	Sub Total Course Equivalent Credits		36

Required Courses <u>without</u> an Equivalent Course at the Receiving Institution			Recognition of Credit at Receiving Institution (if applicable)	
<i>Course Number</i>	<i>Course Title</i>	<i>Credit Hours</i>	<i>Description of How Credit Will Be Recognized (if applicable)</i>	
GAME2175	Software Engineering Life Cycle	3	Credit as a CSC Major Elective.	
GAME3175	Agile Project Mgmt. with Scrum	3	Credit as a CSC Major Elective.	
CPTR3850	Algorithms and Theory of Computing	3	Credit as a CSC Major Elective.	
CPTR3300	Programming Languages	3	Credit as a CSC Major Elective.	
CPTR4200	Mobile & Cloud Software Devlpmnt.	3	Credit as a CSC Major Elective.	
CPTR4901	Capstone	3	Credit as a CSC Major Elective.	
Sub Total Required Credits w/o Course Equivalents		18	Sub Total Recognized Non-Equivalent Course Credits	
			Additional Required Courses at the Receiving Institution	
			<i>Course Number</i>	<i>Course Title</i>
				<i>Credit Hours</i>
			CSC-260	Command Line Interfaces
				3
			CYB-230	Networking and Data Communication
				3
			Sub Total Additional Required Course Credits	
			6	
Elective Courses (Total # courses required = 12) (attach list of choices if needed)			Elective Courses (Total # courses required = 5) (attach list of choices if needed)	
Open Electives		18		Elective credit
CPTR Electives		6		Elective credit
Electives				
CPTR2801	Information Security Threat Landscape and Attacker Motivation	3		Credit as a General Elective.
				3
CPTR4100	Machine Learning	3	CSC-333	Machine Learning
				Credit as a CSC Major Elective.
				3
CPTR3805	Bioinformatics	3	BIO-260	Bioinformatics
				[Credit as a General Elective.
				May count for Data Analytics Minor/Major.]
				3
CPTR3xxx	Algorithms for Computer Graphics and Computer Vision	3		Credit as a CSC Major Elective.
				3
CPTR3xxx	Web Development	3		Credit as a CSC Major Elective.
				3
CPTR3600	Networking I	3	CYB-230	Networking and Data Communications
				3

				[CSC Major requirement at AU. See above.]	
CPTR Specialization courses		12			
Specialization: Game Programming					
GAME3135	Game Programming I	3		Credit as a CSC Major Elective.	3
GAME3145	Game Programming II	3		Credit as a CSC Major Elective.	3
GAME4115	Artificial Intelligence for Video Games	3		Credit as a CSC Major Elective.	3
GAME3902	Serious Games Project	3		Credit as a CSC Major Elective.	3
Specialization: Information Security					
CPTR2800	Information Security and Information Technology Fundamentals	3	CYB-115	Cybersecurity Fundamentals [Credit as a General Elective. May count for Cybersecurity Major]	3
CPTR3801	Information Security Incident Handling	3	CYB-401	Preparing for Cyber Disasters [Credit as a General Elective. May count for Cybersecurity Major]	3
CPTR3803	Digital Forensics	3	CYB-328	Computer Network Forensics and Digital Investigations [Credit as a General Elective. May count for Cybersecurity Major]	3
CPTR3804	Cryptography and Information Security	3	CYB-304	Cryptography [Credit as a General Elective. May count for Cybersecurity Major]	3
Specialization: Data Science					
DATA2001	Data Science Tools and Techniques	3		Credit as a General Elective.	3
MATH2101	Business Statistics	3	ECO-115	Statistics [Credit as a General Elective. May count for Data Analytics Minor/Major or Cybersecurity Major]	3
CPTR4100	Machine Learning	3	CSC-333	Machine Learning [Credit as a CSC Major elective.]	3
CPTR3805	Bioinformatics	3	BIO-260	Bioinformatics [Credit as a General Elective. May count for Data Analytics Minor/Major.]	3
Sub Total Elective Credits		36	Sub Total Elective Credits		18

<i>Distribution of General Education Requirements</i> Attach List of General Education Offerings (Course Numbers, Titles, and Credits)	<i># of Gen Ed Credits</i>	<i>Distribution of General Education Requirements</i> Attach List of General Education Offerings (Course Numbers, Titles, and Credits)	<i># of Gen Ed Credits</i>
CORE-1001/ CORE-1500 Managing Transitions	3	Person and Society 3	3
CORE-ENGL Composition and Agile Mindset (English 1001)	3	Core Seminar: ENG130 English Composition	3
CORE 3100 Developing an Entrepreneurial Mindset	3		
ENGL 1003 Writing about Literature	3	Core Seminar: LTE 140 Introduction to Literature	3
HUMN Humanities Elective	3	Great Conversation 1: Second Literature	3
Lab Science Elective	4	Scientific and Quantitative Reasoning 1	4
Science Elective	3	Scientific and Quantitative Reasoning 2	3
Social Science Elective	3	Person and Society 1	3
Social Science Elective	3	Person and Society 2	3
PHIL1300 Informal Logic and Critical Thinking	3	Great Conversation 2: 3 rd PHI PHI 210 Logic	3
MATH 3305 Linear Algebra	3	Scientific and Quantitative Reasoning 3: MAT 203 Linear Algebra	3
Pre-Calculus or Calculus II	3	MAT 114 or MAT 118	3
MATH 2400 (counted above)	0		
<i>Sub Total General Education Credits</i>	37	<i>Sub Total General Education Credits</i>	34
<i>Curriculum Summary</i>		<i>Curriculum Summary</i>	
<i>Total credit hours required for degree</i>	121	<i>Total credit hours required for degree</i>	120
<i>Prerequisite, Concentration or Other Requirements, if any</i>		<i>Prerequisite, Concentration or Other Requirements, if any:</i>	

The above equivalences grant AU Core Credit for all Becker Core courses except for CORE 3100 Developing an Entrepreneurial Mindset. The courses below are the remaining Assumption University Core requirements not fulfilled by the equivalents above. These would be required of Becker students based on proximity to completion (120 credits), but in no case would they extend time to degree. Seniors would not face added requirements if they have completed Becker's general education curriculum. Juniors could be required to take a proportion of these requirements based on the extent to which they otherwise fit in their on-time degree

programs. Those who matriculate at Assumption as sophomores would generally be expected to complete these courses in addition to the Becker core.

PHI 100 Socrates and the Search for Truth	3
PHI 15X Second Philosophy	3
THE 100 Introduction to Theology	3
THE 15X Second Theology	3
Fine Art	3
Foreign Language 1 (if placed)	3
Foreign Language 2 (if starting)	3 or 0
Global Awareness (can double count)	3 or 0
Total credits	18, 21, or 24

Assumption University Core Checkoff Sheet

<p>CORE SEMINARS (6 courses) Fall/Spring sequences, expected to be completed by the end of sophomore year Reading and writing intensive, to build skills for the rest of the curriculum</p> <ul style="list-style-type: none"> <input type="checkbox"/> ENG130 <input type="checkbox"/> LTE 140, CLT140, or 204 in a language <input type="checkbox"/> PHI100 <input type="checkbox"/> PHI 151, 152, 153, 154 <input type="checkbox"/> THE100 <input type="checkbox"/> THE 150, 151, 153 	<p>Global Awareness (GA) Options</p> <p><i>MAY double count in core</i> Any language level V or higher</p> <p>Any Spanish course with Latin American content</p> <p>ANT 131 BUS 330 CLT 385 ECO 252 ECO 264 EDU 302 GEO 100 GEO 222 GEO 232 GEO 108 GLS 100 GLS 112 (3 times) HIS 114 HIS 115 HIS 241 HIS 250</p>	<p>Social Science Options</p> <p><i>May NOT double count in core</i> <i>Social Science courses must be from different disciplines, unless taken for Statistics</i></p> <p>ANT 131 ECO 110 EDU 101 Any Geography GLS 100 HRS 119 HRS 121 LAS 200 POL 203 POL 207 Juniors and Seniors Any POL</p>
<p>SCIENTIFIC AND QUANTITATIVE REASONING (3 courses)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Math 114 or higher (placement binding) <input type="checkbox"/> One Natural Science <i>Science majors</i> choose from BIO160, CHE131, ENV150, PHY201 <i>Non-science majors</i> choose from BIO102 (lecture and lab), BIO105, BIO110, BIO115, BIO140 (for education majors), CHE105, ENV120 <input type="checkbox"/> One more scientific or quantitative course 2nd Natural Science (see listing above) 2nd Math above first Any statistics course (ECO115, PSY224, SOC300) Any computer science course A social science course from ANT131, ECO110, any GEO, PSY101, PSY 253, SOC121, SOC122 		
<p>PERSON AND SOCIETY (3 courses)</p> <ul style="list-style-type: none"> <input type="checkbox"/> One History from HIS114/115; HIS116/117; HIS180/181 <input type="checkbox"/> One Social Science (see list to the right) <input type="checkbox"/> One more History or Social Science 2nd 100-level HIS from those above, or HIS150R in Rome; or any 200 or 300 level history. If taking a second 100-level HIS, must take any Part I and any Part II 2nd Social Science from a different discipline than the first 		
<p>CULTURE AND EXPRESSION (2, 3, or 4 courses)</p>		

<p><input type="checkbox"/> One Fine Art from ART101, ART106, ART107, ART111, ARD115, ARH125, ARH140R, ARH223R, ARH224R, ARH160, MUS101, MUS122, MUS124, MUS125, MUS126, MUS233, MUS193 (three times), MUS195 (three times), MUS196 (three times), MUS197 (three times)</p> <p><input type="checkbox"/> (<input type="checkbox"/>) One or Two Foreign Language (placement binding) 1 semester of Foreign Language at placement level, or two semesters of a new language; EDU302 if majoring in education; American Sign Language I and II count as a language.</p> <p><input type="checkbox"/> (<input type="checkbox"/>) One Global Awareness May double count within the core.</p>	<p>HIS 251 HIS 252 HIS 254 HIS 255 HIS 282 HIS 283 HIS 290 HIS 291 HIS 363 HIS 383 HIS 385 INB 318 MUS 125 MUS 126 PSY 218 SOC 108 THE 286 WMS 385</p>	<p>PSY 101 PSY 210 PSY 240 PSY 290 CLT/PSY/HIS/ SOC 285 HIS/ANT 254 HIS/ANT 255 Choose 1 only: SOC 121 SOC 122 or CRM 130 CRM 242</p>
<p>THE GREAT CONVERSATION (2 courses)</p> <p><input type="checkbox"/> 1 of 2 2nd Literature from ENG225-295 or ENG320-395 or any Comparative Literature or Literature in a Language except 204 or HON200.</p> <p><input type="checkbox"/> 1 of 2 Political Science from POL110, POL201, POL205, POL350</p> <p><input type="checkbox"/> 1 of 2 3rd Philosophy at a higher level numbered 200 or higher</p> <p><input type="checkbox"/> 1 of 2 3rd Theology at a higher level numbered 200 or higher</p>		