# PROPOSED PATHWAY CSCU Pathway Transfer A.A. Degree: Computer Science Studies

Not all community colleges offer any or all of the courses that are required in the pathway. This pathway document lists existing courses at the community colleges. The computer science work group approved the current pathway with the understanding that community college computer science faculty will modify or create courses where necessary. The Framework and Implementation Review Committee recommends that the pathway be moved forward for endorsement votes on the campuses with the understanding that periodic updates will be made and that, before the pathway becomes available for students for the fall of 2017, community college faculty will work to develop or modify courses as necessary.

# PROPOSED PATHWAY CSCU Pathway Transfer A.A. Degree: Computer Science Studies

1	FRAMEWORK30		
2	Section A: Common Designated		
	Competencies		
3	Written Communication I	ENG 101 Composition	3 credits
4	Written Communication II	General Education Elective	3 credits
5	Scientific Reasoning	One sequence intended for majors	8 credits
6	Scientific Knowledge & Understanding	of that discipline. Must include labs.  BIO 121 General Biology I and BIO 122 General Biology II  OR  CHE 121 General Chemistry I and CHE 122 General Chemistry II  OR PHY 221 Calculus-based Physics I and PHY 222 Calculus-based Physics II	
7	Quantitative Reasoning	MAT 186 Pre-Calculus	4 credits
8	Historical Knowledge & Understanding	General Education Elective	3 credits
9	Social Phenomena	General Education Elective	3 credits
10	Aesthetic Dimensions	General Education Elective	3 credits
11	Section B: Campus Designated Competencies		
12	Competency 1	General Education Elective	3 credits
13	Competency 2	General Education Elective	3 credits
14	Framework30 Total		33 credits
	76,		

15	PATHWAY30		
16	Major Program Requirements		
17	Calculus I C or above	MAT 254	4 credits
18	Calculus II Corabove	MAT 256	4 credits
19	Computer Science/Programming I C or above	CSC 223 Java Programming I (4 credits, HCC)	3 credits
1	161,	CSC 125 Programming Logic with C++ (MCC)	
		CSC 105 Programming Logic (MXCC)	
		CSC 220 Object-Oriented Programming Using Java (NCCC)	
		CSC 106 Structured Programming (QVCC)	

		CSC 108 Introduction to	
20	Community Colored / Decommunity H. Con	Programming (4 credits, NCC, TRCC)	2
20	Computer Science/Programming II Corabove	CSC 224 Java Programming II (4 credits, HCC)	3 credits
		CSC 215 Object-Oriented	
		Programming with C++ (4 credits, MCC)	
		CSC 220 Object-Oriented	10
		Programming Using Java (MXCC)	0,
		CSC 221 (NCCC)	
		CSC 226 Object-Oriented	
		Programming in Java (QVCC, 4 credits, NCC)	
		CSC 223 Java Programming I (4	
		credits, TRCC); Also CSC 224 Java	
		Programming II (4 credits, TRCC)	
21	Digital Systems C- or above	CST 145 Digital Circuits and Logic (4	4 credits
		credits, HCC, NCC, TRCC)	
		OR CSC 283 Introduction to	
	QC	Assembler (4 credits, NCC)	
		CSC 287 Organization & Architecture	
		PLUS EET 252 Digital Electronics (6	
		credits, MCC)	
22	Discrete Math C or above	MAT 210 Discrete Math (TRCC)	3 credits
23	Introduction to Database Design Cor	CSC 231 Database Design I OR CSC	3 credits
	above	238 SQL Fundamentals (HCC)	
	<i>;(0)</i> .	CSC 230 Database Concepts with	
	421	Web Application (MCC)	
		CSC 231 Database Design I (MXCC)	
		CSA 145 Database Management	
		(QVCC)	
		CSC 233 Database Development I (4	
		credits, NCC, NCCC, TRCC)	

24	Client-side Web Design	CST 150 Web Design and Development PLUS CSC 268 Client- Side Programming (6 credits, HCC)  CST 150 Web Design & Development I PLUS CST 250 Web Design and	3 credits
		Development II (6 credits, MCC)  CST 150 Web Design and Development (NCCC, QVCC)  CST 153 Web Development and Design I (4 credits, NCC, TRCC)	270
25			
26	Unrestricted Electives		0 credits
27	Students who begin the Math sequence above MAT 186 will have unrestricted electives and should consider beginning or completing work on foreign language requirements not already met in high school and beginning work on minor requirements of some CSUs. They may also complete other General Education requirements, but only up to six (6) credits for ECSU.	6M. 18 Mg/	
28	Pathway30 Total		27 credits

29	Computer Science Pathway Total	)	60 credits

Students who are required to complete developmental coursework or who place below the required entry level of math for their program may not be able to complete their pathway degree in 60-61 credits/contact hours.

### **Template 1**

### **Central Connecticut State University**

Complete four-year degree with articulation of community college degree to four-year degree

#### **Computer Science B.S. – Alternative Program**

Students must have a C- or above in all courses required for the major

Credits   Gredits   Gredits	1	Co	ommunity Colleges*:		CCSU	
Framework30**  General Education Requirements  Competency: Section A  Written I  Gen Ed  One sequence intended for majors of that discipline. Must include labs.  BIO 121 General Biology II OR CHE 121 General Biology II OR CHE 121 General Chemistry Laboratory and CHEM 200 Foundations of Inorganic Chemistry Laboratory and CHEM 201 Foundations of Analytical Chemistry Laboratory OR CHE 121 General Chemistry III OR CHE 122 General Chemistry III OR PHY 121 General Physics II OR PHY 121 General Physics II OR PHY 222 Calculus-based Physics I and PHY 222 Calculus-based Physics I and PHY 222 Calculus-based Physics II  MATH 119 Pre-Calculus with 7 Trigonometry  II Suantiative  MAT 186 Pre-Calculus Assistance MAT 186 Pre-Calculus  Social Phenomena Gen Ed  Social Phenomena Gen Ed  Study Area II – History January III Assistance January III January			Jimaniey Coneges 1	Credits	0000	Credits
General Education Requirements  Competency: Section A  Written II			Fra		<b>30**</b>	<b>V</b>
6 Section A 7 Written I English 101 3 English 110 3 8 Written II Gen Ed 3 Skill Area I - Communication 3 9 Scientific Reasoning intended for majors of that discipline. Must include labs.  BIO 121 General Biology II OR CHEM 161 General Chemistry with CHEM 162 General Chemistry with CHEM 200 Foundations of Inorganic Chemistry Laboratory and CHEM 200 Foundations of Analytical Chemistry Laboratory OR CHE 121 General Chemistry III OR PHY 121 General Physics II OR PHY 221 Calculus-based Physics I II OR PHY 222 Calculus-based Physics II  11 Quantitative MAT 186 Pre-Calculus 4 MATH 119 Pre-Calculus with Trigonometry  12 Historical Knowledge Gen Ed 3 Study Area II – History 3 Knowledge Gen Ed 3 Study Area II – Arts and Humanities 3 Humanities 3 Study Area II – Arts and Humanities 3 Humanities 4 H	4					
Written I	5	Competency:			W V	
8 Written II Gen Ed 3 Skill Area I – Communication 3 9 Scientific Reasoning One sequence intended for majors of that discipline. Must include labs.  BIO 121 General Biology II OR CHEM 162 General Chemistry with GHEM 162 General Chemistry Laboratory and CHEM 200 Foundations of Inorganic Chemistry Laboratory and CHEM 201 Foundations of Analytical Chemistry Laboratory OR PHY 212 General Chemistry III OR PHY 121 General Physics I and PHY 122 General Physics I and PHY 222 Calculus-based Physics I and PHY 222 Calculus-based Physics II  OR PHY 21 Calculus-based Physics II  OR PHY 21 Calculus-based Physics II  OR PHY 21 Calculus-based Physics II  OR PHY 221 Calculus-based Physics II  OR PHY 21 Calculus-based Physics II  OR PHY 22 Calculus-based Physics II  OR PHY 21 Calculus-based Physics II  OR PHY 221 Calculus-based Physics II  OR PHY 222 Calculus-based Physics II  OR PHY 235 Calculus-based Physics II  OR PHY 240 Calculus-based Physics II  OR PHY 251 Calculus-based Physics II  OR PHY 251 Calculus-based Physics II  OR PHY 261 Calculus-based Physics II  OR PHY 270 Calculus-based Physics II  OR PHY 281 Calculus-based Physics II  OR PHY 292 Calculus-based Physics II  OR PHY 293 Calculus-based Physics II  OR PHY 294 Calculus-based Physics II  OR PHY 294 Calculus-based Physics II  OR PHY 295 Calculus-based Physics II  OR PHY 296 Calculus-based Physics II  OR PHY 297 Calculus-based Physics II  OR PHY 297 Calculus-based Physics II  OR PHY 298 Calculus-based Physics II	6	Section A			(/)	
9 Scientific Reasoning 10 Scientific Knowledge intended for majors of that discipline. Must include labs.  8 BIO 121 General Biology I and BIO 122 General Biology I and BIO 122 General Biology II OR CHEM 162 General Chemistry with CHEM 162 General Chemistry Laboratory and CHEM 200 Foundations of Inorganic Chemistry Laboratory OR CHE 121 General Chemistry I and CHE 122 General Chemistry I and CHE 122 General Chemistry III OR PHYS 125 University Physics I and PHY 121 General Physics II OR PHY 121 General Physics II OR PHY 222 Calculus-based Physics I and PHY 222 Calculus-based Physics II  11 Quantitative MAT 186 Pre-Calculus 4 MATH 119 Pre-Calculus with Trigonometry  12 Historical Gen Ed* 3 Study Area II – History 3 3 Study Area II – Social Science 3 3 Study Area II – Social Science 3 3 Study Area II – Social Science 3 3 Study Area II – Arts and Humanities	7	Written I	English 101	3	English 110	3
Scientific Knowledge   Intended for majors of that discipline. Must include labs.   Scientific Knowledge   Intended for majors of that discipline. Must include labs.   Scientific Knowledge   Intended for majors of that discipline. Must include labs.   Scientific Knowledge   Intended for majors of that discipline. Must include labs.   Intended for majors of that discipline. Must include labs.   Intended for majors of that discipline. Must include labs.   Include labs.   Intended for majors of that discipline. Must include labs.   Intended for majors of that discipline. Must include labs.   Intended for majors of that discipline. Must include labs.   Intended for majors of that discipline. Must include labs.   Intended for majors of that discipline. Must include labs.   Intended for majors of that discipline. Must include labs.   Intended for majors of that discipline. Must include labs.   Intended for majors of that discipline. Must include labs.   Intended for majors of that discipline. Must include labs.   Intended for majors of that discipline.   Intended for majors of the GHEM 161 General Chemistry with CHEM 162 General Chemistry with CHEM 162 General Chemistry with CHEM 200 Foundations of Intended CHEM 200 Foundations of Intended CHEM 201 Foundations of Intended CHEM 200 Foundations of Intended CHEM 200 Foundations of Intended CHEM 201 Foundation	8	Written II	Gen Ed	3	Skill Area I - Communication	3
intended for majors of that discipline. Must include labs.  BIO 121 General Biology II OR CHEM 162 General Chemistry with CHEM 162 General Chemistry and CHEM 200 Foundations of Inorganic Chemistry Laboratory and CHEM 201 Foundations of Analytical Chemistry I and CHE 122 General Chemistry II OR PHYS 125 University Physics I and PHY 121 General Physics I and PHY 221 Calculus-based Physics II  OR PHY 221 Calculus-based Physics II  OR PHY 221 Calculus-based Physics II  It Quantitative MAT 186 Pre-Calculus 4 MATH 119 Pre-Calculus with Trigonometry  It Historical Knowledge Gen Ed*  Social Phenomena Gen Ed  3 Study Area II – Social Science  3 Study Area I – Arts and Humanities	9	Scientific Reasoning	One sequence	8	BIO 121 General Biology I and BIO	8
11 Quantitative MAT 186 Pre-Calculus 4 MATH 119 Pre-Calculus with Trigonometry  12 Historical Knowledge Gen Ed* 3 Study Area II – History 3  13 Social Phenomena Gen Ed 3 Study Area II – Social Science 3  14 Aesthetic Dimensions Gen Ed 3 Study Area I – Arts and Humanities	10	Scientific Knowledge	that discipline. Must include labs.  BIO 121 General Biology I and BIO 122 General Biology II OR CHE 121 General Chemistry I and CHE 122 General Chemistry II OR PHY 121 General Physics I and PHY 122 General Physics II OR PHY 221 Calculus-based Physics I and		OR CHEM 161 General Chemistry with CHEM 162 General Chemistry Laboratory and CHEM 200 Foundations of Inorganic Chemistry with CHEM 201 Foundations of Analytical Chemistry Laboratory OR PHYS 125 University Physics I and	
Trigonometry  12 Historical Knowledge  13 Social Phenomena Gen Ed  14 Aesthetic Dimensions  15 Gen Ed  16 Aesthetic Dimensions  17 MATT 13 Tre Canculas With Trigonometry  18 Study Area II – History  19 Study Area II – Social Science  20 Study Area I – Arts and Humanities						
13 Social Phenomena Gen Ed 3 Study Area II – Social Science 3  14 Aesthetic Dimensions Gen Ed 3 Study Area I – Arts and Humanities 3	11	Quantitative	MAT 186 Pre-Calculus	4		4
13     Social Phenomena     Gen Ed     3     Study Area II – Social Science     3       14     Aesthetic Dimensions     Gen Ed     3     Study Area I – Arts and Humanities     3	12		Gen Ed*	3	Study Area II – History	3
Dimensions Humanities	13	_	Gen Ed	3	Study Area II – Social Science	3
15 Section B	14		Gen Ed	3	-	3
	15	Section B				

			1	1	1
16	Competency:	Gen Ed	3	Skill Area IV – University Requirement	3
17	Competency:	Gen Ed	3	Study Area III – Behavioral Sciences	3
18	Framework30	Credits (30-31):		Sciences	
19	Traine Workso	• • • • • • • • • • • • • • • • • • • •	Pathwa	v30	
20				ducation Courses	
21		Additional de		Study Area I – Literature	3
22				Study Area I – Arts and	3
				Humanities	
23				Study Area II – Social Sciences	3
24				Study Area III – Behavioral Sciences	3
25	Client-side We	b Development	3	Skill Area II – Math/Stat/ Comp Sci	3
26	(8/5)			Skill Area III – Foreign Language Proficiency. Can be met through the following:  1. Three sequential years of one foreign language at the high-school level. 2. Elementary proficiency as demonstrated by successfully completing a second-semester level CCSU foreign-language course (112 or 118). Students with no previous background in a language must take the first and second semesters (111 and 112, or 118); students who place out of 111 due to previous background in the language may satisfy the requirement by taking 112 only. 3. Passing the CLEP, a standardized examination which demonstrates knowledge of a foreign language equivalent to completion of a second- semester course or higher. 4. Successful completion of	6

er than the ster level.
tor lovel
n of native
a language
glish
uation of
n
culty
or official
n, and
e Chair of
nt of
iages
cordingly.)
54
<b>3</b>
nce I 3
nce III 3
tructures 3
uage 3
the 15
Design
e will be
munity
dent to
courses
nmming
itecture
cs
ment
ning
ng
epts
gence
.anguages
n
hniques
ems
<b> </b>
and the restriction of the second of the sec

			CC 401 Windows		
			CS 491 Wireless		
			CS 492 Security		
			CS 495 Legal, Social, Ethical Issues		
			CS 290 Topics		
			CS 300 Work Experience I		
			CS 301 Work Experience II		
			CS 398 Independent Study		
			CS 499 Seminar		
35				O	
36					
37	MAT 254 Calculus I (C or above)	4	MATH 152 Calculus I	4	
38	Discrete Math (C or Above)	4	MATH 218 Discrete Math	4	
39					
40	Program Course Credits:	20		38	
41	Minor Course Credits:			18-24	
42	Open Electives				
43	MAT 256 Calculus II (C- or above)	4	MATH 221 Calculus II	4	
44	Students who begin the Math sequence		14		
	above MAT 186 will have additional		1/0		
	unrestricted electives.		<b>&gt;</b>		
	Students who have fulfilled foreign				
	language requirements in high school				
	or who use open elective credits at the	OA			
	community college to fulfill foreign				
	language and/or minor requirements	7,			
	will end up with more open elective				
	credits at the CCSU				
45	Open Elective credits:			0-6	
	Total Credits at the Community College	60-61	Total Credits for the 4-Year	120	
46	lereiou mora				

### **Template 1**

#### **Central Connecticut State University**

Complete four-year degree with articulation of community college degree to four-year degree

Computer Science B.S. – Honors

Students must have a C- or above in all courses required for the major Students are required to take a proficiency test specified by the department during their senior year.

1	Co	ommunity Colleges*:		CCSU	0
2			Credits		Credits
3		Fra	meworl	(30**	
4		General Edu	ucation	Requirements V	
5	Competency:			.(\)	
6	Section A			100	
7	Written I	English 101	3	English 110	3
8	Written II	Gen Ed	3	Skill Area I – Communication	3
9	Scientific Reasoning	One sequence	8	BIO 121 General Biology I and BIO	8
10	Scientific Knowledge	intended for majors of that discipline. Must include labs.  BIO 121 General Biology I and BIO 122 General Biology II OR CHE 121 General Chemistry I and CHE 122 General Chemistry III OR PHY 121 General Physics I and PHY 122 General Physics II OR PHY 221 Calculusbased Physics I and PHY 222 Calculusbased Physics II and PHY 222 Calculusbased		122 General Biology II OR CHEM 161 General Chemistry with CHEM 162 General Chemistry Laboratory and CHEM 200 Foundations of Inorganic Chemistry with CHEM 201 Foundations of Analytical Chemistry Laboratory OR PHYS 125 University Physics I and PHYS 126 University Physics II	
11	Quantitative	based Physics II MAT 186 Pre-Calculus	4	MATH 119 Pre-Calculus with	3
				Trigonometry	
12	Historical Knowledge	Gen Ed*	3	Study Area II – History	3
13	Social Phenomena	Gen Ed	3	Study Area II – Social Science	3
14	Aesthetic Dimensions	Gen Ed	3	Study Area I – Arts and Humanities	3
15	Section B				

	T		T				
16	Competency:	Gen Ed	3	Skill Area IV – University Requirement	3		
17	Competency:	Gen Ed	3	Study Area III – Behavioral Sciences	3		
18	Framework30	Credits (30-31):	1		33		
19							
20				lucation Courses			
21				Study Area I – Literature	3		
22				Study Area I – Arts and Humanities	3		
23				Study Area II – Social Sciences	3		
24				Study Area III – Behavioral	3		
				Sciences			
25	Client-side We	b Development	3	Skill Area II – Math/Stat/ Comp Sci	3		
26	(8/5)			Skill Area III – Foreign Language Proficiency. Can be met through the following:  1. Three sequential years of one foreign language at the high-school level. 2. Elementary proficiency as demonstrated by successfully completing a second-semester level CCSU foreign-language course (112 or 118). Students with no previous background in a language must take the first and second semesters (111 and 112, or 118); students who place out of 111 due to previous background in the language may satisfy the requirement by taking 112 only. 3. Passing the CLEP, a standardized examination which demonstrates knowledge of a foreign language equivalent to completion of a second- semester course or higher. 4. Successful completion of a foreign-language course	6		

		1		
			at a level higher than the	
			second- semester level.	
			<ol><li>Demonstration of native</li></ol>	
			proficiency in a language	
			other than English	
			(requires evaluation of	
			skill level by an	
			appropriate faculty	
			member and/or official (	
			documentation, and	
			approval by the Chair of	
			the Department of	
			Modern Languages	
			(Credits will adjust accordingly.)	
27	General Education Credits:	36		54
28	Major	Progran	n Courses	
29	Computer Programming I	3	CS 151 Computer Science I	3
30	Computer Programming II	3	CS 152 Computer Science II	3
31			CS 153 Computer Science III	3
32			CS 253 Data and File Structures	3
33			CS 254 Computer Organization	3
			and Assembly Language	
			Programming	
34	Digital Systems (C- or above)	(3/	CS 354 Digital Systems Design	3
35			CS 355 Systems Programming	3
36		1,	CS 385 Computer Architecture	3
37	Introduction to Database Design (Cor	3	CS 290 Topics in Computer	3
	above)		Science	
38	10		Select 9 hours from the following	9
	76,		advanced electives:	
			CS 407 Advanced Topics	
			CS 415 Game Development	
			CS 416 Web Programming	
			CS 423 Graphics	
			CS 425 Image Processing	
	larsiol1		CS 460 Database Concepts	
	12,		CS 462 Artificial Intelligence	
			CS 463 Algorithms	
			CS 464 Programming Languages	
			CS 465 Compiler Design	
			CS 473 Simulation Techniques	
			CS 481 Operating Systems	
			CS 483 Theory	
			CS 490 Networking	
			CS 491 Wireless	
			CS 492 Security	
			CS 495 Legal, Social, Ethical Issues	

39			Select one: PHIL 245 Computer Ethics PHIL 242 Ethical Problems in	3
40			Technology Capstone Requirement: CS 410 Introduction to Software Engineering CS 498 Senior Project	6
41				
42				C
43	MAT 254 Calculus I (C or above)	4	MATH 152 Calculus I	4
44	MAT 256 Calculus II (C- or above)	4	MATH 221 Calculus II	4
45	Discrete Math (C or above)	4	MATH 218 Discrete Math	4
46			MATH 226 Linear Algebra and Probability for Engineers	4
47			An additional 7 credits in science, STAT, or above MATH 119 (not counting those in the Math category)	7
48	Program Course Credits:	24	V 0	68
49	Minor Course Credits:		Minor not required	0
50	Or	en Elec	tives	
51				
52	Students who begin the Math sequence above MAT 186 (MATH 119) will have additional unrestricted electives. Students who have fulfilled foreign language requirements in high school or who use open elective credits at the community college to fulfill foreign language and/or minor requirements will end up with more open elective credits at the CCSU			
53	Open Elective credits:			0
54	Total Credits at the Community College	60-61	Total Credits for the 4-Year Degree	122

### **Template 1**

### **Eastern Connecticut State University**

Complete four-year degree with articulation of community college degree to four-year degree **Computer Science B.S.** 

There are no additional requirements for admission to this program.

1	C	ommunity Colleges*:		ECSU	
2		, 0	Credits		Credits
3		Frar	nework	30**	<b>&gt;</b>
4		General Edu	cation R	Requirements	
5	Competency:			V	
6	Section A			.(//	
7	Written I	English 101	3	T1 College Writing	3
8	Written II	Gen Ed	3	T1 Literature and Thought	3
9	Scientific Reasoning	One sequence intended	8	BIO 120 Organismal Biology	8
10	Scientific Knowledge	for majors of that discipline. Must include labs.  BIO 121 General Biology I and BIO 122 General Biology II OR CHE 121 General Chemistry I and CHE 122 General Chemistry II OR PHY 221 Calculus-based Physics I and PHY 222 Calculus-based Physics I II	SN,	w/Lab and BIO 130 Ecology w/Lab OR CHE 210 General Chemistry I with CHE 212 General Chemistry Laboratory I and CHE 211 General Chemistry II with CHE 213 General Chemistry Laboratory II OR PHY 208 Physics w/Calculus I w/Lab and PHY 209 Physics w/Calculus II w/Lab	
11	Quantitative	MAT 186 Pre-Calculus	4	MATH 155 Pre-Calculus  Mathematics	4
12	Historical Knowledge	Gen Ed*	3	T1 Historical Perspectives	3
13	Social Phenomena	Gen Ed	3	T1 Social Sciences	3
14	Aesthetic Dimensions	Gen Ed	3	T1 Arts in Context	3
15	Section B				
16	Competency:	Gen Ed	3	T1 FYI 100	3
17	Competency:	Gen Ed	3	T1 Health and Wellness	3
18	Framework30 C	redits (30-31):	I	1	
19			athway	30	
		<u> </u>		<del></del>	

20	Additional Gen	eral Edu	ucation Courses	
21			T2 Cultural Perspectives	3
22			T2 Individuals and Societies	3
23			T2 Creative Expressions	3
24	Client-side Web Development	3	T2 Applied Information	3
- '			Technologies CSC 215	J
			Introduction to Web	
			Development	
25			Tier 3 Independent Inquiry (Must	3
			be taken at ECSU)	
26			Foreign Language Proficiency	6
			(Can be met by completing at	
			least two years of a single	
			foreign language in high school	
			or two semesters of a single	
			foreign language at the college	
			level. Credits will adjust	
			accordingly.)	
27	<b>General Education Credits:</b>	36	,	54
28	Major P	rogram	Courses	
29	Computer Programming I	3	CSC 210 CS & Programming I	3
30	Computer Programming II	3	CSC 231 CS & Programming II	3
31			CSC 251 Net-centric Computing	3
32			CSC 320 Computer Organization	3
			and Architecture	
33			CSC 330 Data Structures and	3
			Algorithms	
34			CSC 340 Programming Languages	3
			and Translation	
35			CSC 341 Database and	3
	.,70		Information Management	
36			CSC 385 Software Engineering	3
	V 2.		and Professional Practice	
37	• 0//		CSC 440 Operating Systems	3
38	~10·		CSC 3XX/4XX CS Elective	3
39	191		CSC 3XX/4XX CS Elective	3
40			CSC 3XX/4XX CS Elective	3
41				
42				
44	MAT 254 Calculus I (C- or above)	4	MAT 243 Calculus I	4
45	MAT 256 Calculus II (C or above)	4	MAT 244 Calculus II	4
46	Discrete Math (C or above)	3	MAT 230 Discrete Mathematics	3
47	Program Course Credits:	17		47
48	•	en Elect	ives	
L	<u> </u>			

49 Digital Systems C- or above) 4 CSC 2XX Computer Science Elective 50 Introduction to Database Design (C or above) 51 Students who have fulfilled foreign language requirements in high school or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits: 52 Open Elective credits: 53 Total Credits at the Community College 60-61 Total Credits for the 4-Year Degree					
Introduction to Database Design (C or above)   3   CSC 2XX Computer Science Elective	49	Digital Systems C- or above)	4	CSC 2XX Computer Science	
above)  Students who have fulfilled foreign language requirements in high school or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at the ECSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree				Elective	
above)  Students who have fulfilled foreign language requirements in high school or who use open elective credits at the ECSU.  Den Elective credits:  Total Credits at the Community College  Total Credits for the 4-Year Degree	50	Introduction to Database Design (C or	3	CSC 2XX Computer Science	
language requirements in high school or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits:  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree		above)		Elective	
who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at the ECSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree	51	Students who have fulfilled foreign			
community college to fulfill foreign language requirements will end up with more open elective credits at the ECSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree		language requirements in high school or			
language requirements will end up with more open elective credits at the ECSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree		who use open elective credits at the			
language requirements will end up with more open elective credits at the ECSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree		community college to fulfill foreign			
more open elective credits at the ECSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree					
52 Open Elective credits: 53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree					//C
Degree NATO	52		0		
" " V S My Cl. I S My	53	Total Credits at the Community College	60-61	Total Credits for the 4-Year	<b>)</b>   1
Jersion under Review. 18 March				Degree	
			'N'		

### **Template 1**

### **Southern Connecticut State University**

Complete four-year degree with articulation of community college degree to four-year degree

Computer Science B.S. General Program

There are no additional requirements for admission to this program.

1	C	ommunity Colleges*:		SCSU	
2			Credits		Credits
3		Fran	nework	30**	
4		General Educ	cation R	Requirements	
5	Competency:			V .	
6	Section A			.()	
7	Written I	English 101	3	FYE	3
8	Written II	Gen Ed	3	Written Communication	3
9	Scientific Reasoning	One sequence intended	8	BIO 110 General Biology I and	8
10	Scientific Knowledge	for majors of that discipline. Must include labs.  BIO 121 General Biology I and BIO 122 General Biology II OR CHE 121 General Chemistry I and CHE 122 General Chemistry II OR PHY 221 Calculus-based Physics I and PHY 222 Calculus-based Physics II	61/1	BIO 111 General Biology II OR CHE 120 General Chemistry I and CHE 121 General Chemistry II OR PHY 230 Physics for Scientists and Engineers I and PHY 231 Physics for Scientists and Engineers II	
11	Quantitative	MAT 186 Pre-Calculus	4	MAT 122 Pre-Calculus	4
12	Historical Knowledge	Gen Ed	3	Time and Place	3
13	Social Phenomena	Gen Ed	3	Social structure, Conflict, Consensus	3
14	Aesthetic Dimensions	Gen Ed	3	Cultural Expressions	3
15	Section B				
16	Competency:	Gen Ed	3	Critical Thinking	3
17	Competency:	Gen Ed	3	Tech Fluency	3
18	Framework30 C	redits (30-31):			
19		Pa	athway	30	
20		Additional Gen	eral Edu	ucation Courses	
21				American Experience	3

22	Client-side Web Development	3	Creative Drive	3
23			Global Awareness	3
24			Mind and Body	3
25			Multilingual Communication –	9
			level 3 (Can be met by	
			completing the third level of a	
			foreign language	
			or demonstrating knowledge via	
			a STAMP test (Standards-based	
			Measurement of Proficiency) or	$\boldsymbol{O}$
			an equivalent. Credits will adjust	
			accordingly.)	
26			Must be taken at SCSU:	
27			Tier 3 Connections Capstone	0
28	General Education Credits:		.(,)	54
29	Major P	rogram	Courses	
30	Computer Programming I	3	CSC 152 Computer Programming	3
			l a la	J
31	Computer Programming II	3	CSC 153 Computer Programming	3
32	Digital Systems (C- or above)	4	CSC 207 Digital Systems	4
33			CSC 212 Data Structures	3
34		The state of	CSC 305 Computer Organization	3
35			CSC 321 Algorithms	3
36			CSC 324 Computer Ethics	3
37			CSC 330 Software Design and	3
0,			Development	3
38	Introduction to Database Design (C or	3	CSC 335 Database Management	3
	above)		<b>3</b>	
39	76,		CSC 425 Operating Systems	3
40			CSC 465 Communications &	3
			Networks	
41			Select 2 from the following:	6
			CSC 341 Digital Imaging	
	$\cdot$		CSC 431 Fundamentals of	
			Computer Graphics	
	12,		CSC 477 Fundamentals of Data	
•			Mining	
			CSC 481 Artificial Intelligence	
42			Select 1 from the following:	3
			CSC 334 Human Computer	
			Interactions	
			CSC 443 Fundamentals of	
			Internet Programming	
			CSC 453 Information Security	
			CSC 463 Development of E-	
			Commerce Applications	

Project Seminar (also counts as LEP Tier 3)  44 MAT 254 Calculus I (C or above)  45 MAT 256 Calculus II (C- or above)  46 Discrete Math (C or above)  47 MAT 178 Discrete Math  48 Program Course Credits:  48 Program Course Credits:  49 Open Electives  50  51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Open Elective credits:  54 MAT 151 Calculus II  MAT 178 Discrete Math  MAT 221 Intermediate Statistics  Select 1 from the following:  MAT 252 Calculus III  MAT 322 Numerical Analysis I  PHY 355 Electricity and Electronics  54 Open Electives  55 Open Electives  56 Open Elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  57 Open Elective credits:  58 Open Elective credits:  50 Open Elective credits:  50 Open Elective credits:  51 Open Elective credits:  52 Open Elective credits:	CSC 400 Computer Science Project Seminar (also counts as LEP Tier 3)  44 MAT 254 Calculus I (C or above) 45 MAT 256 Calculus II (C- or above) 46 Discrete Math (C or above) 47 MAT 178 Discrete Math 47 MAT 221 Intermediate Statistics Select 1 from the following: MAT 252 Calculus III MAT 322 Numerical Analysis PHY 355 Electricity and Electronics  48 Program Course Credits: 22 Open Electives  50  51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree	CSC 400 Computer Science Project Seminar (also counts as LEP Tier 3)  44 MAT 254 Calculus I (C or above) 4 MAT 150 Calculus I 45 MAT 256 Calculus II (C- or above) 4 MAT 151 Calculus II 46 Discrete Math (C or above) 4 MAT 178 Discrete Math 47 MAT 221 Intermediate Statistics Select 1 from the following: MAT 222 Calculus III MAT 322 Numerical Analysis I PHY 355 Electricity and Electronics  48 Program Course Credits: 22 65  50 Open Electives  51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  0 Total Credits for the 4-Year Degree				CSC 476 Fundamentals of Data	
CSC 400 Computer Science Project Seminar (also counts as LEP Tier 3)  44 MAT 254 Calculus I (C or above)  45 MAT 256 Calculus II (C- or above)  46 Discrete Math (C or above)  47 MAT 178 Discrete Math 47 MAT 221 Intermediate Statistics  58 Select 1 from the following: MAT 222 Calculus II MAT 322 Numerical Analysis I PHY 355 Electricity and Electronics  48 Program Course Credits:  49 Open Electives  50  51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year	CSC 400 Computer Science Project Seminar (also counts as LEP Tier 3)  44 MAT 254 Calculus I (C or above) 45 MAT 256 Calculus II (C- or above) 46 Discrete Math (C or above) 47 MAT 178 Discrete Math 47 MAT 221 Intermediate Statistics Select 1 from the following: MAT 252 Calculus III MAT 322 Numerical Analysis PHY 355 Electricity and Electronics  48 Program Course Credits: 22 Open Electives  50  51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  0 Total Credits for the 4-Year Degree	CSC 400 Computer Science Project Seminar (also counts as LEP Tier 3)  44 MAT 254 Calculus I (C or above) 4 MAT 150 Calculus II 45 MAT 256 Calculus II (C- or above) 4 MAT 151 Calculus II 46 Discrete Math (C or above) 4 MAT 178 Discrete Math 47 MAT 221 Intermediate Statistics Select 1 from the following: MAT 222 Calculus III MAT 322 Numerical Analysis I PHY 355 Electricity and Electronics  48 Program Course Credits: 22 69  Open Electives  50  51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  0 Total Credits for the 4-Year Degree				Warehousing	
Project Seminar (also counts as LEP Tier 3)  44 MAT 254 Calculus I (C or above)  45 MAT 256 Calculus II (C- or above)  46 Discrete Math (C or above)  47 MAT 278 Discrete Math  48 Program Course Credits:  48 Program Course Credits:  50 Open Electives  51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year	Project Seminar (also counts as LEP Tier 3)  44 MAT 254 Calculus I (C or above)  45 MAT 256 Calculus II (C- or above)  46 Discrete Math (C or above)  47 MAT 178 Discrete Math  47 MAT 221 Intermediate Statistics  50 Select 1 from the following:  MAT 252 Calculus III  MAT 322 Numerical Analysis I  PHY 355 Electricity and Electronics  50 Open Electives  50 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree	Project Seminar (also counts as LEP Tier 3)  44 MAT 254 Calculus I (C or above) 4 MAT 150 Calculus I 4  45 MAT 256 Calculus II (C- or above) 4 MAT 151 Calculus II 4  46 Discrete Math (C or above) 4 MAT 178 Discrete Math 3  47 MAT 221 Intermediate Statistics 4  48 Program Course Credits: 22 65  49 Open Electives  50  51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits: 0 Total Credits for the 4-Year Degree	43				3
LEP Tier 3)  44 MAT 254 Calculus I (C or above)  45 MAT 256 Calculus II (C- or above)  46 Discrete Math (C or above)  47 MAT 178 Discrete Math  48 Program Course Credits:  48 Program Course Credits:  49 Open Electives  50  51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  54 MAT 151 Calculus II  MAT 178 Discrete Math  MAT 221 Intermediate Statistics  Select 1 from the following:  MAT 252 Calculus III  MAT 322 Numerical Analysis I  PHY 355 Electricity and Electronics  55 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college of fulfill foreign language requirements will end up with more open elective credits at SCSU.  56 Open Elective credits:  57 Total Credits at the Community College  58 Total Credits for the 4-Year	LEP Tier 3)  44 MAT 254 Calculus I (C or above)  45 MAT 256 Calculus II (C- or above)  46 Discrete Math (C or above)  47 MAT 178 Discrete Math  48 Program Course Credits:  48 Program Course Credits:  49 Open Electives  50  51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits at the Community College  53 Total Credits at the Community College  54 MAT 178 Discrete Math  MAT 178 Discrete Math  MAT 221 Intermediate Statistics  Select 1 from the following:  MAT 252 Calculus III  MAT 322 Numerical Analysis I  PHY 355 Electricity and Electronics  55 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college open elective credits at SCSU.  52 Open Elective credits 60 Total Credits for the 4-Year Degree	LEP Tier 3)  44 MAT 254 Calculus I (C or above)  45 MAT 256 Calculus II (C- or above)  46 Discrete Math (C or above)  47 MAT 178 Discrete Math  48 Program Course Credits:  48 Program Course Credits:  49 Open Electives  50  51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  54 MAT 151 Calculus II  MAT 178 Discrete Math  MAT 221 Intermediate Statistics  55 Select 1 from the following:  MAT 252 Calculus III  MAT 322 Numerical Analysis  PHY 355 Electricity and  Electronics  65  65  65  66  60-61 Total Credits for the 4-Year  Degree				•	
45 MAT 256 Calculus II (C- or above) 46 Discrete Math (C or above) 47 MAT 178 Discrete Math 47 MAT 221 Intermediate Statistics 48 Program Course Credits: 49 Open Electives 50 51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits: 50 Open Electives 51 Total Credits at the Community College 52 Open Elective credits: 53 Total Credits at the Community College 54 MAT 151 Calculus II MAT 178 Discrete Math MAT 252 Calculus III MAT 322 Numerical Analysis I PHY 355 Electricity and Electronics   48 Program Course Credits:  9  9  9  9  9  9  9  9  9  9  9  9  9	45 MAT 256 Calculus II (C- or above) 4 MAT 151 Calculus II 46 Discrete Math (C or above) 4 MAT 178 Discrete Math 47 MAT 221 Intermediate Statistics 5 Select 1 from the following: MAT 252 Calculus III MAT 322 Numerical Analysis I PHY 355 Electricity and Electronics  48 Program Course Credits: 22  49 Open Electives  50  51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree	45 MAT 256 Calculus II (C- or above) 4 MAT 151 Calculus II 44 46 Discrete Math (C or above) 4 MAT 178 Discrete Math 3 47  MAT 221 Intermediate Statistics 4  Select 1 from the following: MAT 252 Calculus III MAT 322 Numerical Analysis I PHY 355 Electricity and Electronics  48 Program Course Credits: 22  Open Electives  50  Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  0 Total Credits for the 4-Year Degree					
46 Discrete Math (C or above) 4 MAT 178 Discrete Math 47 MAT 221 Intermediate Statistics Select 1 from the following: MAT 252 Calculus III MAT 322 Numerical Analysis I PHY 355 Electricity and Electronics  48 Program Course Credits: 22 Open Electives  50  51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits: 0 Total Credits for the 4-Year	46 Discrete Math (C or above) 4 MAT 178 Discrete Math 47 MAT 221 Intermediate Statistics  Select 1 from the following: MAT 252 Calculus III MAT 322 Numerical Analysis I PHY 355 Electricity and Electronics  48 Program Course Credits: 22  Open Electives  50  51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits: 53 Total Credits at the Community College 60-61 Total Credits for the 4-Year Degree	46 Discrete Math (C or above) 4 MAT 178 Discrete Math 3 47 MAT 221 Intermediate Statistics 48 Program Course Credits: 49 Open Electives 50 51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU. 52 Open Elective credits: 53 Total Credits at the Community College 50 Total Credits for the 4-Year Degree	44	MAT 254 Calculus I (C or above)	4	MAT 150 Calculus I	4
MAT 221 Intermediate Statistics  Select 1 from the following: MAT 252 Calculus III MAT 322 Numerical Analysis I PHY 355 Electricity and Electronics  48 Program Course Credits:  22  49  Open Electives  50  51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  5 Open Elective credits:  5 Total Credits at the Community College  60-61 Total Credits for the 4-Year	MAT 221 Intermediate Statistics  Select 1 from the following: MAT 252 Calculus III MAT 322 Numerical Analysis I PHY 355 Electricity and Electronics  48 Program Course Credits:  22  Open Electives  50  Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits: 53 Total Credits at the Community College 60-61 Total Credits for the 4-Year Degree	MAT 221 Intermediate Statistics 4 Select 1 from the following: MAT 252 Calculus III MAT 322 Numerical Analysis I PHY 355 Electricity and Electronics  48 Program Course Credits: 22 69 Open Electives  50 51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits: 53 Total Credits at the Community College 60-61 Total Credits for the 4-Year Degree	45	MAT 256 Calculus II (C- or above)	4	MAT 151 Calculus II	4
Select 1 from the following: MAT 252 Calculus III MAT 322 Numerical Analysis PHY 355 Electricity and Electronics  48 Program Course Credits: 22  49 Open Electives  50  51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  5 Total Credits at the Community College  60-61 Total Credits for the 4-Year	Select 1 from the following: MAT 252 Calculus III MAT 322 Numerical Analysis PHY 355 Electricity and Electronics  48 Program Course Credits:  22  Open Electives  50  51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits:  52 Open Electives  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree	Select 1 from the following: MAT 252 Calculus III MAT 322 Numerical Analysis I PHY 355 Electricity and Electronics  48 Program Course Credits: 22 65  Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits: 0 Total Credits for the 4-Year Degree	46	Discrete Math (C or above)	4	MAT 178 Discrete Math	3
MAT 252 Calculus III MAT 322 Numerical Analysis I PHY 355 Electricity and Electronics  48 Program Course Credits:  22 Open Electives  50 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  5 Total Credits at the Community College  60-61 Total Credits for the 4-Year	MAT 252 Calculus III MAT 322 Numerical Analysis PHY 355 Electricity and Electronics  48 Program Course Credits:  22  Open Electives  50  Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College 60-61 Total Credits for the 4-Year Degree	MAT 252 Calculus III MAT 322 Numerical Analysis PHY 355 Electricity and Electronics  48 Program Course Credits:  22 Open Electives  50 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College 60-61 Total Credits for the 4-Year Degree	47			MAT 221 Intermediate Statistics	4
MAT 322 Numerical Analysis I PHY 355 Electricity and Electronics  48 Program Course Credits:  22  49 Open Electives  50  51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  5 Total Credits at the Community College  60-61 Total Credits for the 4-Year	MAT 322 Numerical Analysis PHY 355 Electricity and Electronics  48 Program Course Credits:  22 Open Electives  50 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree	MAT 322 Numerical Analysis I PHY 355 Electricity and Electronics  48 Program Course Credits:  22 Open Electives  50 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree				Select 1 from the following:	4
PHY 355 Electricity and Electronics  48 Program Course Credits:  22 Open Electives  50 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year	PHY 355 Electricity and Electronics  48 Program Course Credits:  22 Open Electives  50 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree	PHY 355 Electricity and Electronics  48 Program Course Credits:  22 Open Electives  50 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree				MAT 252 Calculus III	<b>&gt;</b>
## Program Course Credits:  ## Program Course Credits:  ## Open Electives    Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  ### SELECTION	## Program Course Credits:  ## Open Electives    Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.    Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college for fulfill foreign language requirements will end up with more open elective credits at SCSU.    STAMP or equivalent   STAMP or equ	## Program Course Credits:  ## Program Course Credits:  ## Open Electives    50				MAT 322 Numerical Analysis I	
48 Program Course Credits:  49 Open Electives  50 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College 60-61 Total Credits for the 4-Year	48 Program Course Credits:  49 Open Electives  50  51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree	48 Program Course Credits:  49 Open Electives  50  51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree				PHY 355 Electricity and	
Open Electives  Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  Den Elective credits:  Total Credits at the Community College 60-61 Total Credits for the 4-Year	9 Open Electives  Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  Deen Elective credits:  Total Credits at the Community College 60-61 Total Credits for the 4-Year Degree	9 Open Electives  Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  Depart Electives  Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree				Electronics	
50 51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits: 53 Total Credits at the Community College 60-61 Total Credits for the 4-Year	50 51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits: 53 Total Credits at the Community College 60-61 Total Credits for the 4-Year Degree	50 51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree	48	Program Course Credits:	22		65
51 Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College 60-61 Total Credits for the 4-Year	Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree	Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree	49	Оре	en Elect	ives	
language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year	language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree	language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree	50				
assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College 60-61 Total Credits for the 4-Year	assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree	assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree	51	Students who have fulfilled foreign		0 14.	
place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College 60-61 Total Credits for the 4-Year	place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree	place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree		language requirements through		<b>* * * *</b>	
open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College 60-61 Total Credits for the 4-Year	open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree	open elective credits at the community college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree		assessment (STAMP or equivalent), who			
college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College 60-61 Total Credits for the 4-Year	college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree	college to fulfill foreign language requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree		place beyond first semester, or who use		<b>&gt;</b>	
requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College 60-61 Total Credits for the 4-Year	requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree	requirements will end up with more open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree		open elective credits at the community			
open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College 60-61 Total Credits for the 4-Year	open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree	open elective credits at SCSU.  52 Open Elective credits:  53 Total Credits at the Community College  60-61 Total Credits for the 4-Year Degree  12		college to fulfill foreign language	-IN		
52 Open Elective credits: 0 53 Total Credits at the Community College 60-61 Total Credits for the 4-Year	52 Open Elective credits: 53 Total Credits at the Community College 60-61 Total Credits for the 4-Year Degree	52 Open Elective credits: 53 Total Credits at the Community College 60-61 Total Credits for the 4-Year Degree 12		requirements will end up with more			
53 Total Credits at the Community College 60-61 Total Credits for the 4-Year	Total Credits at the Community College 60-61 Total Credits for the 4-Year Degree	Total Credits at the Community College 60-61 Total Credits for the 4-Year Degree 12		open elective credits at SCSU.			
	Degree	Degree			•		3
Degree	76/	76/	53	Total Credits at the Community College	60-61		12
761	Indel	ionundel				Degree	
						Degree	
$r\dot{s} O '$				rsionundel			
10/3/01/	10/2/			Jersion Indel			

### **Template 1**

### **Western Connecticut State University**

Complete four-year degree with articulation of community college degree to four-year degree **Computer Science B.S.** 

A G.P.A. of 2.5 or better for all CS and MAT courses in the major is required.

1	С	ommunity Colleges*:		WCSU	
2			Credits		Credits
3		Fra	mework	30**	
4		General Ed	ucation R	Requirements	<b>)</b>
5	Competency:			V	
6	Section A			.(//	
7	Written I	English 101	3	Written Communication I	3
8	Written II	Gen Ed	3	Written Communication II	3
9	Scientific Reasoning	One sequence	8	BIO 103 General Biology I and	8
10	Scientific Knowledge	intended for majors of that discipline. Must include labs.  BIO 121 General Biology I and BIO 122 General Biology II OR CHE 121 General Chemistry I and CHE 122 General Chemistry II OR PHY 221 Calculusbased Physics I and PHY 222 Calculusbased Physics II	Jew	BIO 104 General Biology II OR CHE 110 General Chemistry I and CHE 111 General Chemistry II OR PHYS 110 General Physics I (Calculus) and PHY 111 General Physics II (Calculus)	
11	Quantitative	MAT 186 Pre-Calculus	4 One credit goes to free elective at WCSU	MAT 170 Calculus of Polynomials	3
12	Historical Knowledge	Gen Ed*	3	Critical Thinking	3
13	Social Phenomena	Gen Ed	3	Information Literacy	3
14	Aesthetic Dimensions	Gen Ed	3	Creative Process	3
15	Section B				
16	Competency:	Gen Ed	3	Oral Communication	3

17	Competency:	Gen Ed	3	General Education Elective	3
18	Framework30 (	Credits (30-31):			32
19			Pathway:	30	
20			-	ucation Courses	
21				General Education Elective –	3
				second exposure to a	
				competency other than	
				Quantitative Reasoning and	$\mathcal{O}$
				Scientific Inquiry.	
22				Intercultural Competence	3
23				Health and Wellness	3
24				Students must complete a	3
				foreign language requirement.	
				This may be done by	
				completing a language at the	
				elementary II level or above.	
				Students who have completed	
				three years of language in	
				high school with at least a C average have satisfied this	
				requirement.	
25			- M	Must be taken at WCSU:	
26			10,7	First Year Navigation	0
27			$H_{\sim}$	Written Communication III—	0-3
_,		$\sim$ 0		embedded in a major course	
28				Culminating Gen Ed	3
				Experience – may be satisfied	
		101		by a major capstone	
29	<b>General Educat</b>	ion Credits:			47-50
30		Major	<b>Program</b>	Courses	
31	Computer Prog	ramming I	3	CS 140 Introduction to	3
	•			Programming with Java	
32	Computer Prog	ramming II	1	CS 140 Introduction to	1
			The	Programming with Java	
	12,		other		
•			two		
			credits		
			will be		
			received		
			as free		
			electives. See line		
			53		
33				CS 170 Language C++	4
J.J				CO 170 Language C11	

34	Introduction to Database Design (C or	3	CS 205 Data Modeling and	3
] 54	above)		Database Design	1 credits
	above		Dutubuse Design	will be
				added at
				WCSU
				(line 44)
35	Digital Systems (C- or above)	4	CS 215 Computer Architecture	4
36	, , ,		CS 221 Object Oriented	4
			Programming	
37			CS 240 Computer Organization	4
			& Software	
38			Select 1 from the following:	4
			CS 305 Database Applications	
			Engineering	
			CS 350 Object Oriented	
			Software Engineering	
			CS 360 Distributed	
			Applications Engineering	
39			CS 315 Design and Analysis of	4
			Algorithms	
40			CS 355 Programming	4
			Languages	
41			S 450 Operating Systems	4
42	Client-side Web Development	3	Computer Science Electives:	12
	MAT 256 Calculus II (C- or above)	4	Select 12 credits from the	
		7,	following:	
	OK		CS 245 Web Applications	
			Development	
			MAT 182 Calculus II	
	76,		The above two courses are	
			completed at the community	
	14/9		college for a total of 7 credits)	
			(Salact E gradite from the	
			(Select 5 credits from the	
	$:O_I$		following once matriculated to WCSU):	
	arsilo"		CS 235 Digital Media	
	12,		CS 250 Advanced Topics in	
			Programming	
			CS 270	
	*		CS 297 Cooperative Education	
			(1-9 SH)	
			CS 298 Faculty Developed	
			Study (1-4 SH)	
			CS 299 Student Developed	
			Study (1-4 SH)	
			CS 285 Artificial Intelligence	

			CS 305 Database Applications Engineering. CS 330 Computer Graphics CS 340 Computer Animation CS 350 Object Oriented	
			Software Engineering CS 351 Independent Study (3	
			SH) CS 360 Distributed	(-
			Applications Engineering	
			CS 399 Honors Project (3 SH)	
			CS 410 Compiler Construction	) '
			CS 444 Computer Networks	
			CS 484 Special Topics in	
			Computer Science	
			MAT 272 Introduction to	
42			Linear Algebra	1
43			CS 2XX Topics in Database Design	1
44			MAT 120 Elementary Statistics	3
45	Discrete Math (C or above)	3	CS/MAT 165 Introductory	3
.5	Discrete Math (e of above)		Discrete Mathematics	3
			©S/MAT 1XX Topics in Discrete	1
			Mathematics	
46			CS/MAT 359 Introduction to	3
			Theory of Computation	
47	MAT 254 Calculus I (C or above)	4	MAT 171 Calculus I with	4
			Review	
			OR	
			MAT 181 Calculus I	
48	Due many Course Control			
49 50	Program Course Credits:		•	66
		pen Elect	ives 	4
51	One credit from line 11	2	CC 102 Intowns dista lava	1
52	Computer Programming II See line 33	2	CS 102 Intermediate Java	2
53	Students who have fulfilled foreign		Programming	
) )	language requirements in high school			
	or who use open elective credits at the			
	community college to fulfill foreign			
	language requirements will end up			
	with more open elective credits at			
	WCSU.			
54	Open Elective credits:			1-4
55	Total Credits at the Community College	60-61	Total Credits for the 4-Year	120
			Degree	

### **Template 1**

### **Charter Oak State College**

Complete four-year degree with articulation of community college degree to four-year degree **General Studies: Computer Science Studies B.A.** 

There are no additional requirements for admission to this program.

1	C	ommunity Colleges*:		со	
2			Credits		Credits
3		Fran	nework	30**	<b>&gt;</b>
4		General Edu	cation R	Requirements	
5	Competency:			V	
6	Section A			(//	
7	Written I	English 101	3	Composition 101	3
8	Written II	Gen Ed	3	Composition 102	3
9	Scientific Reasoning	One sequence intended	8	BIO 121 General Biology I and	8
10	Scientific Knowledge	for majors of that discipline. Must include labs.  BIO 121 General Biology I and BIO 122 General Biology II OR CHE 121 General Chemistry I and CHE 122 General Chemistry II OR PHY 221 Calculus-based Physics I and PHY 222 Calculus-based Physics I and PHY 221 Calculus-based Physics I and PHY 221 Calculus-based Physics I and PHY 222 Calculus-based Physics III		BIO 122 General Biology II OR CHEM 161 General Chemistry with CHEM 162 General Chemistry Laboratory and CHEM 260 Foundations of Inorganic Chemistry with CHEM 201 Foundations of Analytical Chemistry Laboratory OR PHYS 125 University Physics I and PHYS 126 University Physics II	
11	Quantitative	MAT 186 Pre-Calculus	4	Pre-Calculus	4
12	Historical	Gen Ed*	3	U.S History/Gov or Non-U.S Hist	3
	Knowledge			*	
13	Social Phenomena	Gen Ed	3	Social/Behavioral Science	3
14	Aesthetic Dimensions	Gen Ed	3	Literature and Fine Arts	3
15	Section B				
16	Competency:	Gen Ed	3	Oral Communication	3
17	Competency:	Gen Ed	3	Ethical Decision Making	3
18	Framework30 C	redits (30-31):			33
19		P	athway:	30	
20				ucation Courses	
				<del></del>	

21			U.S. History/Gov or Non-U.S Hist	3
			(Must meet both requirements)	
22			Global Understanding	3
23	Client-side Web Development	3	General Education elective	3
24				
25				
26				
27	General Education Credits:			42
28		rogram	Courses	
29	Discrete Math (C or above)	3	Discrete Math	3
30	MAT 254 Calculus I (C or above)	4	Calculus I	4
31	MAT 256 Calculus II (C- or above)	4	Calculus II	4
32	111111 200 Galleanas II (G. G. abeve)	•	Linear Algebra	3
33			Introduction to Computer	3
33			Science	3
34	Introduction to Data Structures (C or		Algorithm Development and	3
	above)		Data Structures	
35	·		Software Engineering/Software	3
			Systems Design	
36			Networking	3
37			Database Systems	3
38			Computer	3
			Architecture/Computer	
			Organization	
39			Choose 1 from the following:	3
	$\sim$		Compilers	
			Analysis of Algorithms	
	1 / 1		Survey Comparison of	
	101		Programming Languages	
			Microprocessors	
			Operating Systems	
			Other faculty-approved areas	
40	V		Capstone	3
41			Co-requisites:	
42			Logic:	3
	36/2		Programming Logic	
			Philosophical Logic	
	IC,		Digital Logic	
			Mathematical Logic	
43	<b>~</b>		Technical Communication	3
44				
45				
46 47	Drogram Course Credite:			44
47	Program Course Credits:	on Flast	ivos	44
	-	en Elect	ives	
49	Digital Systems (C- or above)	3		3

50	Open Elective credits:			21
51	Total Credits at the Community College	60-61	Total Credits for the 4-Year	120
			Degree	

Version under Review. 18 Warch 2016

### **Template 2**

Credits remaining in the four-year degree

### **Computer Science B.S. – Alternative Program**

Students must receive a C- or above in all courses required for the major

1	Central Connecticut State University	
2	Remaining General Education Courses	2
3	Course	Credits
4	Study Area I – Literature	3
5	Study Area I – Arts and Humanities	3
6	Study Area II – Social Sciences	3
7	Study Area III – Behavioral Sciences	3
8		
9	Skill Area III – Skill Area III – Foreign Language Proficiency. Can be met through the	6
	following:	
	<ol> <li>Three sequential years of one foreign language at the high-school level.</li> </ol>	
	2. Elementary proficiency as demonstrated by successfully completing a second-	
	semester level CCSU foreign-language course (112 or 118). Students with no	
	previous background in a language must take the first and second semesters	
	(111 and 112, or 118); students who place out of 111 due to previous	
	background in the language may satisfy the requirement by taking 112 only.	
	3. Passing the CLEP, a standardized examination which demonstrates knowledge	
	of a foreign language equivalent to completion of a second-semester course or	
	higher.	
	4. Successful completion of a foreign-language course at a level higher than the	
	second- semester level.	
	5. Demonstration of native proficiency in a language other than English (requires	
	evaluation of skill level by an appropriate faculty member and/or official	
	documentation, and approval by the Chair of the Department of Modern	
	Languages	
10	(Credits will adjust accordingly.)	40
10	General Education Credits	18
11	Remaining Major Program Requirements	1
12	Course	Credits
13	CS 153 Computer Science III	3
14	CS 253 Data and File Structures	3
15	CS 254 Assembly Language	3
16	Select 3 courses from the following:	9
	CS 355 Systems Programming	
	CS 385 Computer Architecture	
	CS 407 Advanced Topics	
	CS 415 Game Development	
	CS 416 Web Programming	
	CS 423 Graphics	

	CS 490 Networking CS 491 Wireless	
	CS 492 Security	
	CS 495 Legal, Social, Ethical Issues	
	CS 290 Topics	
	CS 300 Work Experience I	
	CS 301 Work Experience II	
	CS 398 Independent Study	
	CS 499 Seminar	
17	Program course credits	18
18	Minor – Students should consider beginning work on a minor at the community	18-24
	college.	
	Damaining On a Floating	
19	Remaining Open Electives	
19 20	Courses Remaining Open Electives	Credits
		Credits 0-6
20	Courses	
20 21	Courses Open Elective credits	
20 21	Courses Open Elective credits Students who have fulfilled the foreign language requirement in high school or who	

### **Template 2**

Credits remaining in the four-year degree

### **Computer Science B.S. – Honors**

Students must have a C- or above in all courses required for the major Students are required to take a proficiency test specified by the department during their senior year.

1	Central Connecticut State University	
2	Remaining General Education Courses	C
3	Course	Credits
4	Study Area I – Literature	3
5	Study Area I – Arts and Humanities	3
6	Study Area II – Social Sciences	3
7	Study Area III – Behavioral Sciences	3
8		
9	<ul> <li>Skill Area III – Skill Area III – Foreign Language Proficiency. Can be met through the following: <ol> <li>Three sequential years of one foreign language at the high-school level.</li> <li>Elementary proficiency as demonstrated by successfully completing a second-semester level CCSU foreign-language course (112 or 118). Students with no previous background in a language must take the first and second semesters (111 and 112, or 118); students who place out of 111 due to previous background in the language may satisfy the requirement by taking 112 only.</li> <li>Passing the CLEP, a standardized examination which demonstrates knowledge of a foreign language equivalent to completion of a second-semester course or higher.</li> <li>Successful completion of a foreign-language course at a level higher than the second- semester level.</li> <li>Demonstration of native proficiency in a language other than English (requires evaluation of skill level by an appropriate faculty member and/or official documentation, and approval by the Chair of the Department of Modern Languages</li> <li>(Credits will adjust accordingly.)</li> </ol> </li> </ul>	6
10	General Education Credits	18
11	Remaining Major Program Requirements	
12	Course	Credits
13	CS 153 Computer Science III	3
14	CS 253 Data and File Structures	3
15	CS 254 Computer Organization and Assembly Language Programming	3
16	CS 355 Systems Programming	3
17	CS 385 Computer Architecture	3
18	Select 9 hours from the following advanced electives:	9
	CS 407 Advanced Topics	
	CS 415 Game Development	
	CS 416 Web Programming	]

	00,400,0	
	CS 423 Graphics	
	CS 425 Image Processing	
	CS 460 Database Concepts	
	CS 462 Artificial Intelligence	
	CS 463 Algorithms	
	CS 464 Programming Languages	
	CS 465 Compiler Design	
	CS 473 Simulation Techniques	
	CS 481 Operating Systems	
	CS 483 Theory	
	CS 490 Networking	
	CS 491 Wireless	
	CS 492 Security	
	CS 495 Legal, Social, Ethical Issues	
19	Select one:	3
	PHIL 245 Computer Ethics	
	PHIL 242 Ethical Problems in Technology	
20	Capstone Requirement:	6
	CS 410 Introduction to Software Engineering	
	CS 498 Senior Project	
21	MATH 226 Linear Algebra and Probability for Engineers	4
22	An additional 7 credits in science, STAT, or above MATH 119 (not counting those in the	7
	Math category)	
23	. 0//	
24		
25		
26		
27		
28		
29	Major Course credits	44
30	Minor – A minor is not required for this major.	0
31	Remaining Open Electives	
32	Courses	Credits
33	Open Elective credits	0
34	Students who have fulfilled the foreign language requirement in high school or who	
	use open elective credits at the community college to fulfill foreign language and/or	
	minor requirements will end up with more open elective credits at the CCSU.	
35	Total Credits Remaining for the 4-Year Degree	62

### **Template 2**

Credits remaining in the four-year degree **Computer Science B.S.** 

1	Eastern Connecticut State University		
2	Remaining General Education Courses	•	
3	Course	Credits	
4	Two of the T2 courses must be completed at ECSU.		
5	T2 Cultural Perspectives	3	
6	T2 Individuals and Societies	3	
7	T2 Creative Expressions	3	
8	T3 Independent Inquiry (Capstone – CSC 450 Senior Research)	3	
9	Foreign Language Proficiency (Can be met with three years of the same foreign	6	
	language in high school or the completion of a second semester at the college level.		
	Credits will adjust accordingly.)		
10	General Education Credits	18	
11	Remaining Major Program Requirements		
12	Course	Credits	
13	CSC 251 Net-centric Computing	3	
14	CSC 320 Computer Organization and Architecture	3	
15	CSC 330 Data Structures and Algorithms	3	
16	CSC 340 Programming Languages and Translation	3	
17	CSC 341 Database and Information Management	3	
18	CSC 385 Software Engineering and Professional Practice	3	
19	CSC 440 Operating Systems	3	
20	CSC 3XX/4XX CS Elective	3	
21	CSC 3XX/4XX CS Elective	3	
22	CSC 3XX/4XX CS Elective	3	
23	Major Course credits	30	
24	Remaining Open Electives		
25	Courses	Credits	
26	Open Elective credits	12	
27	Students who have fulfilled foreign language requirements in high school or who use		
	open elective credits at the community college to fulfill foreign language		
	requirements will end up with more open elective credits at ECSU.		
28	Total Credits Remaining for the 4-Year Degree	60	

### **Template 2**

Credits remaining in the four-year degree
Computer Science B.S. – General Program
Students must complete 2 "W" courses at SCSU.

1	Southern Connecticut State University	
2	Remaining General Education Courses	
3	Course	Credits
4	Multilingual Communication – Level 3 (Can be met by completing the third level of a	9
	foreign language or demonstrating knowledge via a STAMP test (Standards-based	
	Measurement of Proficiency) or an equivalent. Credits will adjust accordingly.)	
5	American Experience	3
6	Global Awareness	3
7	Mind and Body	3
8	Tier 3 Connections Capstone	0
9	0 //	
10	General Education Credits	18
11	Remaining Major Program Requirements	
12	Course	Credits
13	CSC 212 Data Structures	3
14	CSC 305 Computer Organization	3
15	CSC 321 Algorithms	3
16	CSC 324 Computer Ethics	3
17	CSC 330 Software Design and Development	3
18	CSC 335 Database Management	3
19	CSC 425 Operating Systems	3
20	CSC 465 Communications & Networks	3
21	Select 2 from the following:	6
	CSC 341 Digital Imaging	
	CSC 431 Fundamentals of Computer Graphics	
	CSC 477 Fundamentals of Data Mining	
	CSC 481 Artificial Intelligence	
22	Select 1 from the following:	3
	CSC 334 Human Computer Interactions	
•	CSC 443 Fundamentals of Internet Programming	
	CSC 453 Information Security	
	CSC 463 Development of E-Commerce Applications	
	CSC 476 Fundamentals of Data Warehousing	_
23	CSC 400 Computer Science Project Seminar (also counts as LEP Tier 3)	3
24	Select 1 from the following:	4
	MAT 232 November 1 April 1 Apr	
	MAT 322 Numerical Analysis I	
25	PHY 355 Electricity and Electronics	
25		

27		40
۷,	Remaining Open Electives	
28	Courses	Credits
29	Open Elective credits	3
30	Students who have fulfilled foreign language requirements through assessment (STAMP or equivalent), who place beyond first semester, or who use open elective credits at the community college to fulfill foreign language requirements will end up	
31	with more open elective credits at SCSU.  Total Credits Remaining for the 4-Year Degree	61
	rejon more	
	lerion more beautiful to the second of the s	
	Jersion under Rev	

### **Template 2**

Credits remaining in the four-year degree

### **Computer Science B.S.**

A G.P.A. of 2.5 or better for all CS and MAT courses in the major is required.

1	Western Connecticut State University		
2	Remaining General Education Courses		
3	Course	Credits	
4	Health and Wellness	3	
5	Intercultural Competency	3	
6	General Ed Elective other than Quantitative Reasoning and Scientific Inquiry.	3	
7	Students must complete a foreign language requirement for this program. This may be	3	
	done by completing a language at the elementary II level or above. Students who have		
	completed three years of language in high school with at least a Caverage have		
	satisfied this requirement.		
8	The following must be taken at WCSU:		
9	First Year Navigation	0	
10	Written Comm III – embedded in a major course	0-3	
11	Culminating Gen Ed Experience – may be satisfied by a major capstone	3	
12			
13	General Education Credits	15-18	
14	Remaining Major Program Requirements		
15	Course	Credits	
16	CS 170 Language C++	4	
17	CS 2XX Topics in Database Design	1	
18	CS 221 Object Oriented Programming	4	
19	CS 240 Computer Organization & Software	4	
20	Select 1 from the following:	4	
	CS 305 Database Applications Engineering		
	CS 350 Object Oriented Software Engineering		
	CS 360 Distributed Applications Engineering		
21	CS 315 Design and Analysis of Algorithms	3	
22	CS 355 Programming Languages	4	
23	CS 450 Operating Systems	4	
24	Computer Science Electives: Select 5 credits from the following:	5	
	CS 235 Digital Media		
	CS 250 Advanced Topics in Programming		
	CS 270		
	CS 297 Cooperative Education (1-9 SH)		
	CS 298 Faculty Developed Study (1-4 SH)		
	CS 299 Student Developed Study (1-4 SH)		
	CS 285 Artificial Intelligence		
	CS 305 Database Applications Engineering		
1	CS 330 Computer Graphics	I	

		ı
l	CS 340 Computer Animation	
	CS 350 Object Oriented Software Engineering	
	CS 351 Independent Study (3 SH)	
	CS 360 Distributed Applications Engineering	
	CS 399 Honors Project (3 SH)	
	CS 410 Compiler Construction	
	CS 444 Computer Networks	
	CS 484 Special Topics in Computer Science	
	MAT 272 Introduction to Linear Algebra	
25		V
26	MAT 120 Elementary Statistics	3
27	CS/MAT 1XX Topics in Discrete Mathematics	1
28	CS/MAT 359 Theory of Computation	4
29		
30	Major Course credits	41
31	Remaining Open Electives	
32	Courses	Credits
33	Open Elective credits	1-4
34	Students who have fulfilled foreign language requirements in high school or who use	
	open elective credits at the community college to fulfill foreign language	
	open elective creates at the community conege to runni loreign language	
	requirements will end up with more open elective credits at WCSU.	
35		60
35	requirements will end up with more open elective credits at WCSU.	60

### **Template 2**

Credits remaining in the four-year degree

General Studies: Computer Science Studies B.A.

1	Charter Oak State College	
2	Remaining General Education Courses	
3	Course	Credits
4	U.S. History/Gov or Non-U.S Hist (Must meet both requirements)	3
5	Global Understanding	3
6	, 19	
7	General Education Credits	6
8	Remaining Major Program Requirements	
9	Course	Credits
10	Linear Algebra	3
11	Introduction to Computer Science	3
12	Software Engineering/Software Systems Design	3
13	Networking	3
14	Database Systems	3
15	Computer Architecture/Computer Organization	3
16	Choose 1 from the following:	3
	Compilers	
	Analysis of Algorithms	
	Survey Comparison of	
	Programming Languages	
	Microprocessors	
	Operating Systems	
	Other faculty-approved areas	
17	Capstone	3
18	Co-requisites:	
19	Logic:	3
	Programming Logic	
	Philosophical Logic	
	Digital Logic	
	Mathematical Logic	
20	Technical Communication	3
	Major Course credits	30
22	Remaining Open Electives	1
23	Courses	Credits
24		
25	Open Elective credits	24
26	Total Credits Remaining for the 4-Year Degree	60