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CSCU Mathematics Transfer Pathway
2021-2022

Contents

The CSCU Pathway Transfer A.A. Degree: Mathematics Studies was approved by the BOR during AY 2015-16 and made available to students AY2016-17.

Changes from 2016/2017:

(a) SCSU made changes to their LEP and foreign language requirements that do not affect the requirements for the community college pathway degree, but may affect the way the student is received at SCSU

(b) clarified Additional General Education Requirements 1 & II

(c) added IDS 101 to COSC General Education Requirements

11/1/2017

Corrected course number (CSC 106) for ACC's Structured Programming (pg 5, line 40; pg 8, line 41; pg 11, line 40; pg 14, line 39; pg 17, line 40; pg 20, line 42; pg 24, line 51; pg 27, line 47; pg 31, line 39

04/23/2018

Updated WCSU programs to reflect changes in general education requirements

05/02/2018

Updated COSC to clarify liberal arts and upper level credit requirements; added 499 Capstone

05/08/2018

Updated ECSU program from 1 – 5 majors

5/15/2018

P32,line 41: corrected credits from 3 to 6

7/26/2018

COSC program removed; COSC does not offer enough of the courses to offer the program

Learning Outcomes

CSCU Pathway Transfer A.A. Degree: Mathematics 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	BIO, CHE or PHY sequence	4 credits
6	Scientific Knowledge & Understanding	BIO, CHE or PHY sequence	4 credits
7	Quantitative Reasoning	MAT 185 Trigonometry MAT 186 Pre-Calculus	3-4 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**		**32-33 credits**

15	**PATHWAY30**		
16	*Additional General Education Courses*		
17			
18			
19	*Major Program Requirements*		
20	MAT 254	Calculus I	4 credits
21	MAT 256	Calculus II	4 credits
22	MAT 268	Calculus III: Multivariable	4 credits
23	Select one: MAT 272 (3 credits: GCC, MXCC, NCC, QVCC, TRCC, TXCC) MAT 274 (4 credits: MCC) MAT 285 (3 credits: ACC, GCC, HCC, MXCC, NVCC, NCC, TRCC, TXCC) MAT 286 (4 credits: MCC, QVCC) MAT 287 (4 credits: MCC)	 Linear Algebra Differential Equations Foundations of Mathematics	3-4 credits
24	ACC – CS 106 CCC – CSC 105 GCC – CSC 110 / CSC 124 HCC – CSC 105	Structured Programming (3) Programming Logic (3) Computer Logic and Problem Solving (3)	3-4 credits

	CSC 106 MCC – CSC 124 CSC 125 MXCC – CSC 105 NCC – CSC 108 NVCC – CSC 205 NWCC – CSC 104 QVCC – CSC 106 TRCC – CSC 108 TXCC – CSC 126 3	Programming Logic (3); Structured Programming (3) Programming Logic and Design with Python (3); Programming Logic and Design with C++ (3) Programming Logic (3) Introduction to Programming (3) Visual Basic I (3) Introduction to Logic and Programming (4) Structured Programming (3) Introduction to Programming (4) Programming Logic and Design with Visual Basic (3)	
25	*Unrestricted Electives*		
26	Students should consider beginning or completing work on foreign language requirements (at CCSU, ECSU and WCSU) not already met in high school and beginning work on a minor (required at CCSU for the general Mathematics B.A. – up to 9 credits can be completed at the community college). They may also complete other General Education requirements.		
27			**8-10 credits**
28	**Pathway30 Total**		**28 credits**

29	**Math Pathway Total**		**60-61 credits**

Transfer Pathway and Degree Program
Central Connecticut State University

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

Mathematics B.A.

There are no additional requirements for admission to this program.

1	Community Colleges			CCSU	
2			Credits		Credits
3	**Framework30**				
4	**General Education Requirements**				
5	**Competency:**				
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	BIO, CHE or PHY Lab sequence	4	Study Area IV – Natural Sciences	4
10	Scientific Knowledge	BIO, CHE or PHY sequence	4	Study Area IV – Natural Sciences	4
11	Quantitative	MAT 185 Trigonometry MAT 186 Pre-Calculus[1]	3-4	Skill Area II – Mathematics	4
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**				
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**		**32-33**		33
19	**Pathway30**				
20	**Additional General Education 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 Sciences	3
25	MAT 254 Calculus I		4	Skill Area II – Math/Stat/ Comp Sci: MATH 152 Calculus I	4
26	Students should consider using Open Electives to complete foreign language requirements			Skill Area III – Foreign Language Proficiency See requirements here. If the requirement has been met in	6

			whole or in part, general education and open elective credits will adjust accordingly.	
27	**General Education Credits:**	**36-37**		**55**
28	**Major Program Courses**			
29	MAT 254 Calculus I	0	MATH 152 Calculus I – See Skill Area II above, line 25	0
30			MATH 218 Discrete Mathematics	
31	MAT 256 Calculus II	4	MATH 221 Calculus II	4
32	MAT 268 Calculus III: Multivariable	4	MATH 222 Calculus III	4
33			MATH 228 Introduction to Linear Algebra	4
34			MATH 366 Abstract Algebra	4
35			MATH 377 Real Analysis	4
36			MATH 450 Proof Seminar	4
37			*Choose Six (6) credits from the following:* MATH 300, 355, 383, 398, 400, 421, 440, 455, 465, 468, 469, 477, 491 STAT 315, 416, 425, 455, 456, 465, 476 ACTL 335, 465, 481, 482	6
38	Select one: MAT 274 Linear Algebra MAT 285 Differential Equations MAT 287 Foundations of Mathematics	4	Will count as: MATH 228 line 32 MATH 355 line 36 MATH 2##/218 Credits will adjust accordingly	
39				
40	Introduction to Programming ACC – CSC 106 Structured Programming (3) CCC – CSC 105 Programming Logic (3) GCC – CSC 110 Computer Logic and Problem Solving (3) HCC – CSC 105 Programming Logic (3); CSC 106 Structured Programming (3) MCC – CSC 124 Programming Logic and Design with Python (3); CSC 125 Programming Logic and Design with C++ (3) MXCC – CSC 105 Programming Logic (3)	3	*Strongly Recommended:* CS 151 Computer Science I	(3)

	NCC – CSC 108 Introduction to Programming (3) NVCC – CSC 205 Visual Basic I (3) NWCC – CSC 104 Introduction to Logic and Programming (4) QVCC – CSC 106 Structured Programming (3) TRCC – CSC 108 Introduction to Programming (4) TXCC – CSC 126 Programming Logic and Design with Visual Basic (3)			
41	**Program Course Credits:**	**15**		**34**
42	**Minor Course Credits:**			**18-24**
43	**Open Electives**			
44	**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 CCSU.**			
45	**Open Elective credits:**	**8-9**		**8-14**
46	**Total Credits at the Community College**	**60-61**	**Total Credits for the 4-Year Degree**	**120**

[1]If a student arrives ready with placement above Pre-calculus, the student will receive 4 additional credits of open electives and four additional credits of open electives for each level of Calculus he/she places out of.

Transfer Pathway and Degree Program
Central Connecticut State University

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

Mathematics B.A. Actuarial Science Specialization

No minor is required for students selecting this major.

1	Community Colleges			CCSU	
2			Credits		Credits
3	**Framework30**				
4	**General Education Requirements**				
5	**Competency:**				
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	BIO, CHE or PHY Lab sequence	4	Study Area IV – Natural Sciences	4
10	Scientific Knowledge	BIO, CHE or PHY sequence	4	Study Area IV – Natural Sciences	4
11	Quantitative	MAT 185 Trigonometry MAT 186 Pre-Calculus[1]	3-4	Skill Area II – Mathematics	4
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**				
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**		**32-33**		33
19	**Pathway30**				
20	**Additional General Education 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 Sciences	3
25	MAT 254 Calculus I		4	Skill Area II – Math/Stat/ Comp Sci: MATH 152 Calculus I	4
26	Students should consider using Open Electives to complete foreign language requirements			Skill Area III – Foreign Language Proficiency See requirements here. If the requirement has been met in	6

			whole or in part, general education and open elective credits will adjust accordingly.	
27	**General Education Credits:**	**36-37**		**55**
28	**Major Program Courses**			
29	MAT 254 Calculus I	0	MATH 152 Calculus I – See Skill Area II above, line 25	0
30			MAT 218 Discrete Mathematics	4
31	MAT 256 Calculus II	4	MATH 221 Calculus II	4
32	MAT 268 Calculus III: Multivariable	4	MATH 222 Calculus III	4
33			MATH 228 Introduction to Linear Algebra	4
34			STAT 315 Mathematical Statistics I	3
35			STAT 416 Mathematical Statistics II	3
36			STAT 425 Loss and Frequency Distributions and Credibility Theory	3
37			ACTL 335 Theory of Interest	3
38			ACTL 465 Actuarial Models I	4
39			ACTL 466 Actuarial Models II	4
40	Select one: MAT 274 Linear Algebra MAT 285 Differential Equations MAT 287 Foundations of Mathematics	4	Will count as: MATH 228 line 33 MATH 355 line 41 MATH 2##/218 Credits will adjust accordingly	
41	Introduction to Programming ACC – CSC 106 Structured Programming (3) CCC – CSC 105 Programming Logic (3) GCC – CSC 110 Computer Logic and Problem Solving (3) HCC – CSC 105 Programming Logic (3); CSC 106 Structured Programming (3) MCC – CSC 124 Programming Logic and Design with Python (3); CSC 125 Programming Logic and Design with C++ (3) MXCC – CSC 105 Programming Logic (3)	3	Major Electives (as approved by advisor): 18 credits from: ACTL 480 ACTL 481 Review – SOA/CAS Course I ACTL 482 Review – SOA/CAS Course II MATH 300 Mathematics Internship MATH 355 Introduction to Differential Equations with Applications MATH 366 Introduction to Abstract Algebra MATH 377 Introduction to Real Analysis AC 211 Introduction to Financial Accounting AC 212 Introduction to Managerial Accounting	18

	NCC – CSC 108 Introduction to Programming (3) NVCC – CSC 205 Visual Basic I (3) NWCC – CSC 104 Introduction to Logic and Programming (4) QVCC – CSC 106 Structured Programming (3) TRCC – CSC 108 Introduction to Programming (4) TXCC – CSC 126 Programming Logic and Design with Visual Basic (3)		CS 151 Computer Science I CS 152 Computer Science II CS 213 Applications of Computing I CS 473 Simulation Techniques ECON 460 Economic Forecasting FIN 295 Managerial Finance FIN 301 Intermediate Managerial Finance FIN 310 Principles of Investments FIN 320 Financial Markets and Institutions FIN 321 Insurance LAW 250 Legal Environment of Business MGT 295 Fundamentals of Management and Organizational Behavior	
42	**Program Course Credits:**	**15**		**54**
43	**Open Electives**			
44	**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 CCSU.**			
45	**Open Elective credits:**	**8-9**		**11**
46	**Total Credits at the Community College**	**60-61**	**Total Credits for the 4-Year Degree**	**120**

[1]If a student arrives ready with placement above Pre-calculus, the student will receive 4 additional credits of open electives and four additional credits of open electives for each level of Calculus he/she places out of.

Transfer Pathway and Degree Program
Central Connecticut State University

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

Mathematics B.A. Statistics Specialization

No minor is required for students selecting this major.

1	Community College			CCSU	
2			Credits		Credits
3	**Framework30**				
4	**General Education Requirements**				
5	**Competency:**				
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	BIO, CHE or PHY Lab sequence	4	Study Area IV – Natural Sciences	4
10	Scientific Knowledge	BIO, CHE or PHY sequence	4	Study Area IV – Natural Sciences	4
11	Quantitative	MAT 185 Trigonometry MAT 186 Pre-Calculus[1]	3-4	Skill Area II – Mathematics	4
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**				
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**		**32-33**		33
19	**Pathway30**				
20	**Additional General Education 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 Sciences	3
25	MAT 254 Calculus I		4	Skill Area II – Math/Stat/ Comp Sci: MATH 152 Calculus I	4
26	Students should consider using Open Electives to complete foreign language requirements			Skill Area III – Foreign Language Proficiency See requirements here. If the requirement has been met in	6

			whole or in part, general education and open elective credits will adjust accordingly.	
27	**General Education Credits:**	**36-37**		**55**
28	**Major Program Courses**			
29	MAT 254 Calculus I	0	MATH 152 Calculus I – See Skill Area II above, line 25	0
30			MAT 218 Discrete Mathematics	4
31	MAT 256 Calculus II	4	MATH 221 Calculus II	4
32	MAT 268 Calculus III: Multivariable	4	MATH 222 Calculus III	4
33			MATH 228 Introduction to Linear Algebra	4
34			MATH 366 Abstract Algebra OR MATH 377 Real Analysis	4
35			STAT 215 Statistics for Behavioral Sciences	
36			STAT 315 Mathematical Statistics I	3
37			STAT 416 Mathematical Statistics II	3
38			STAT 216 Statistics for Behavioral Sciences II OR STAT 453 Applied Statistical Analysis	3
39			2 courses chosen from: STAT 425 Loss and Frequency Distributions and Credibility Theory STAT 455 Experimental Design STAT 456/MKT 444 Fundamentals of SAS STAT 465 Nonparametric Statistics STAT 476 Topics in Statistics	6
40	Introduction to Programming ACC – CSC 106 Structured Programming (3) CCC – CSC 105 Programming Logic (3) GCC – CSC 110 Computer Logic and Problem Solving (3) HCC – CSC 105 Programming Logic (3); CSC 106 Structured Programming (3)	3	16 credits selected from the courses listed above or from the following: MATH 300 Mathematics Internship MATH 491 Advanced Vector Calculus CS 151 Computer Science I CS 152 Computer Science II CS 253 Data and File Structures CS 473 Simulation Techniques	16

	MCC – CSC 124 Programming Logic and Design with Python (3); CSC 125 Programming Logic and Design with C++ (3) MXCC – CSC 105 Programming Logic (3) NCC – CSC 108 Introduction to Programming (3) NVCC – CSC 205 Visual Basic I (3) NWCC – CSC 104 Introduction to Logic and Programming (4) QVCC – CSC 106 Structured Programming (3) TRCC – CSC 108 Introduction to Programming (4) TXCC – CSC 126 Programming Logic and Design with Visual Basic (3)		BIO 405 Ecology ECON 460 Economic Forecasting ECON 485 Econometrics GEOG 476 Advanced Cartography PSY 222 Research Methods in Psychology II PSY 451 Psychological Evaluation ACTL 335 Theory of Interest ACTL 465 Actuarial Models I ACTL 466 Actuarial Models II ACTL 481 Review – SOA/CAS Course I *Strongly Recommended:* CS 151 Computer Science I	
41	Select one: MAT 274 Linear Algebra MAT 285 Differential Equations MAT 287 Foundations of Mathematics	4	Will count as: MATH 228 line 33 MATH 355 line 37 MATH 2##/218 Credits will adjust accordingly	
42	**Program Course Credits:**	**15**		**54**
43	**Open Electives**			
44	**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 CCSU.**			
45	**Open Elective credits:**	**8-9**		**11**
46	**Total Credits at the Community College**	**60-61**	**Total Credits for the 4-Year Degree**	**120**

[1]If a student arrives ready with placement above Pre-calculus, the student will receive 4 additional credits of open electives and four additional credits of open electives for each level of Calculus he/she places out of.

Transfer Pathway and Degree Program
Eastern Connecticut State University

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

Mathematics B.A. – Structures & Applications

For all Mathematics courses number 300 or higher used to satisfy the math major requirement, students must fulfill at least one of the following:

1. C in all these courses OR
2. C+ average in all these courses.

	Community Colleges			CCSU	
			Credits		Credits
	Framework30				
	General Education Requirements				
	Competency				
	Section A				
	Written I	English 101	3	T1 College Writing, Literature and Thought	3
	Written II	Gen Ed	3	T1 College Writing, Literature and Thought	3
	Scientific Reasoning	BIO, CHE or PHY Lab sequence	4	T1 Natural Sciences	4
	Scientific Knowledge	BIO, CHE or PHY Lab sequence	4	T2 Natural Sciences	4
	Quantitative	MAT 185 Trigonometry MAT 186 Pre-Calculus[1]	3-4	T1 Math	4
	Historical Knowledge	Gen Ed	3	T1 Historical Perspectives	3
	Social Phenomena	Gen Ed	3	T1 Social Sciences	3
	Aesthetic Dimensions	Gen Ed	3	T1 Arts in Context	3
	Section B				
	Competency:	Gen Ed	3	T1 FYI 100	3
	Competency:	Gen Ed	3	T1 Health and Wellness	3
	Framework30 Credits		**32-33**		**33**
	Pathway30				
	Additional General Education Courses				
				T2 Cultural Perspectives	3
				T2 Individuals and Societies	3
				T2 Creative Expressions	3
				MAT 315 Applied Probability and Statistics	4
				Tier 3 Capstone (Must be taken at ECSU)	3

26	Students should consider using Open Electives at the community college to complete foreign language requirements		Foreign Language Proficiency: See requirements here. If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly.	6
27	**General Education Credits**	**32-33**		**55**
28	**Major Program Courses**			
29			MAT 230 Discrete Structures	3
30	MAT 254 Calculus I	4	MAT 243 Calculus I with Technology	4
31	MAT 256 Calculus II	4	MAT 244 Calculus II with Technology	4
32			MAT 310 Applied Linear Algebra	3
33			MAT 315 Applied Probability and Statistics See line 24 above	0
34			MAT 320 Number Theory	3
35	MAT 268 Calculus III: Multivariable	4	MAT 340 Calculus III	4
36			MAT 380 Geometry	3
37			MAT 400 Abstract Algebra I	3
38			MAT 420 Real Analysis I	4
39			MAT 421 Real Analysis II	3
40			Two additional MAT courses numbered 300 or above but not MAT 303 or internships	6
41	Select one: MAT 274 Linear Algebra MAT 285 Differential Equations MAT 287 Foundations of Mathematics	4	Will count as: MAT 310 line 32 One of the additional MAT courses line 40 MAT 230 line 29 Credits will adjust accordingly	
42	**Program Course Credits**	**19**		**40**
43	**Open Electives**			
44	Introduction to Programming ACC – CSC 106 Structured Programming (3) CCC – CSC 105 Programming Logic (3) GCC – CSC 110 Computer Logic and Problem Solving (3) HCC – CSC 105 Programming Logic (3); CSC 106 Structured Programming (3)	3	CSC 210 Computer Programming I	3

	MCC – CSC 124 Programming Logic and Design with Python (3); CSC 125 Programming Logic and Design with C++ (3) MXCC – CSC 105 Programming Logic (3) NCC – CSC 108 Introduction to Programming (3) NVCC – CSC 205 Visual Basic I (3) NWCC – CSC 104 Introduction to Logic and Programming (4) QVCC – CSC 106 Structured Programming (3) TRCC – CSC 108 Introduction to Programming (4) TXCC – CSC 126 Programming Logic and Design with Visual Basic (3)			
45	**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.**			
46	**Open Elective credits**	**8-9**		**25**
47	**Total Credits at the Community College**	**60-61**	**Total Credits for the 4-Year Degree**	**120**

[1]If a student arrives ready with placement above Pre-calculus, the student will receive 4 additional credits of open electives and four additional credits of open electives for each level of Calculus he/she places out of.

Transfer Pathway and Degree Program
Eastern Connecticut State University

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

Mathematics B.A. – Math for Teaching

For all Mathematics courses number 300 or higher used to satisfy the math major requirement, students must fulfill at least one of the following:

1. C in all these courses OR
2. C+ average in all these courses.

	Community Colleges			CCSU	
			Credits		Credits
	Framework30				
	General Education Requirements				
	Competency				
	Section A				
	Written I	English 101	3	T1 College Writing, Literature and Thought	3
	Written II	Gen Ed	3	T1 College Writing, Literature and Thought	3
	Scientific Reasoning	BIO, CHE or PHY Lab sequence	4	T1 Natural Sciences	4
	Scientific Knowledge	BIO, CHE or PHY Lab sequence	4	T2 Natural Sciences	4
	Quantitative	MAT 185 Trigonometry MAT 186 Pre-Calculus[1]	3-4	T1 Math	4
	Historical Knowledge	Gen Ed	3	T1 Historical Perspectives	3
	Social Phenomena	Gen Ed	3	T1 Social Sciences	3
	Aesthetic Dimensions	Gen Ed	3	T1 Arts in Context	3
	Section B				
	Competency:	Gen Ed	3	T1 FYI 100	3
	Competency:	Gen Ed	3	T1 Health and Wellness	3
	Framework30 Credits		**32-33**		**33**
	Pathway30				
	Additional General Education Courses				
				T2 Cultural Perspectives	3
				T2 Individuals and Societies	3
				T2 Creative Expressions	3
				MAT 315 Applied Probability and Statistics	4
				Tier 3 Capstone (Must be taken at ECSU)	3

26	Students should consider using Open Electives at the community college to complete foreign language requirements		Foreign Language Proficiency: See requirements here. If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly.	6
27	**General Education Credits**	**32-33**		**52**
28	**Major Program Courses**			
29			MAT 230 Discrete Structures	3
30	MAT 254 Calculus I	4	MAT 243 Calculus I with Technology	4
31	MAT 256 Calculus II	4	MAT 244 Calculus II with Technology	4
32			MAT 310 Applied Linear Algebra	3
33			MAT 315 Applied Probability and Statistics See line 24 above	0
34			MAT 320 Number Theory	3
35	MAT 268 Calculus III: Multivariable	4	MAT 340 Calculus III	4
36			MAT 372 Advanced Math for High School Teaching	3
37			MAT 380 Geometry	3
38			MAT 395 History of Math	3
39			MAT 400 Abstract Algebra I	3
40			MAT 420 Real Analysis I	4
41			One additional MAT course numbered 300 or above but not MAT 303 or internships	3
42	Select one: MAT 274 Linear Algebra MAT 285 Differential Equations MAT 287 Foundations of Mathematics	4	Will count as: MAT 310 line 32 The additional MAT course line 41 MAT 230 line 29 Credits will adjust accordingly	
43	**Program Course Credits**	**19**		**40**
44	**Open Electives**			
45	Introduction to Programming ACC – CSC 106 Structured Programming (3) CCC – CSC 105 Programming Logic (3) GCC – CSC 110 Computer Logic and Problem Solving (3)	3	CSC 210 Computer Programming I	3

	HCC – CSC 105 Programming Logic (3); CSC 106 Structured Programming (3) MCC – CSC 124 Programming Logic and Design with Python (3); CSC 125 Programming Logic and Design with C++ (3) MXCC – CSC 105 Programming Logic (3) NCC – CSC 108 Introduction to Programming (3) NVCC – CSC 205 Visual Basic I (3) NWCC – CSC 104 Introduction to Logic and Programming (4) QVCC – CSC 106 Structured Programming (3) TRCC – CSC 108 Introduction to Programming (4) TXCC – CSC 126 Programming Logic and Design with Visual Basic (3)			
46	**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.**			
47	**Open Elective credits**	**8-9**		**28**
48	**Total Credits at the Community College**	**60-61**	**Total Credits for the 4-Year Degree**	**120**

[1]If a student arrives ready with placement above Pre-calculus, the student will receive 4 additional credits of open electives and four additional credits of open electives for each level of Calculus he/she places out of.

Transfer Pathway and Degree Program
Eastern Connecticut State University

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

Mathematics B.S. – Structures & Applications

For all Mathematics courses number 300 or higher used to satisfy the math major requirement, students must fulfill at least one of the following:

1. C in all these courses OR
2. C+ average in all these courses.

	Community Colleges			CCSU	
			Credits		Credits
	Framework30				
	General Education Requirements				
	Competency				
	Section A				
	Written I	English 101	3	T1 College Writing, Literature and Thought	3
	Written II	Gen Ed	3	T1 College Writing, Literature and Thought	3
	Scientific Reasoning	BIO, CHE or PHY Lab sequence	4	T1 Natural Sciences	4
	Scientific Knowledge	BIO, CHE or PHY Lab sequence	4	T2 Natural Sciences	4
	Quantitative	MAT 185 Trigonometry MAT 186 Pre-Calculus[1]	3-4	T1 Math	4
	Historical Knowledge	Gen Ed	3	T1 Historical Perspectives	3
	Social Phenomena	Gen Ed	3	T1 Social Sciences	3
	Aesthetic Dimensions	Gen Ed	3	T1 Arts in Context	3
	Section B				
	Competency:	Gen Ed	3	T1 FYI 100	3
	Competency:	Gen Ed	3	T1 Health and Wellness	3
	Framework30 Credits		**32-33**		**33**
	Pathway30				
	Additional General Education Courses				
				T2 Cultural Perspectives	3
				T2 Individuals and Societies	3
				T2 Creative Expressions	3
				MAT 315 Applied Probability and Statistics	4
				Tier 3 Capstone (Must be taken at ECSU)	3

26	Students should consider using Open Electives at the community college to complete foreign language requirements		Foreign Language Proficiency: See requirements here. If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly.	6
27	**General Education Credits**	**32-33**		**55**
28	**Major Program Courses**			
29			MAT 230 Discrete Structures	3
30	MAT 254 Calculus I	4	MAT 243 Calculus I with Technology	4
31	MAT 256 Calculus II	4	MAT 244 Calculus II with Technology	4
32			MAT 310 Applied Linear Algebra	3
33			MAT 315 Applied Probability and Statistics See line 24 above	0
34			MAT 320 Number Theory	3
35	MAT 268 Calculus III: Multivariable	4	MAT 340 Calculus III	4
36			MAT 380 Geometry	3
37			MAT 400 Abstract Algebra I	3
38			MAT 420 Real Analysis I	4
39			MAT 421 Real Analysis II	3
40	Introduction to Programming ACC – CSC 106 Structured Programming (3) CCC – CSC 105 Programming Logic (3) GCC – CSC 110 Computer Logic and Problem Solving (3) HCC – CSC 105 Programming Logic (3); CSC 106 Structured Programming (3) MCC – CSC 124 Programming Logic and Design with Python (3); CSC 125 Programming Logic and Design with C++ (3) MXCC – CSC 105 Programming Logic (3) NCC – CSC 108 Introduction to Programming (3) NVCC – CSC 205 Visual Basic I (3)	3	CSC 210 Computer Programming I	3

	NWCC – CSC 104 Introduction to Logic and Programming (4) QVCC – CSC 106 Structured Programming (3) TRCC – CSC 108 Introduction to Programming (4) TXCC – CSC 126 Programming Logic and Design with Visual Basic (3)			
41			Four additional MAT courses numbered 300 or above but not MAT 303 or internships	12
42	Select one: MAT 274 Linear Algebra MAT 285 Differential Equations MAT 287 Foundations of Mathematics	4	Will count as: MAT 310 line 32 One of the additional MAT courses line 41 MAT 230 line 29 Credits will adjust accordingly	
43	**Program Course Credits**	**19**		**49**
44	**Open Electives**			
45	**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.**			
46	**Open Elective credits**	**8-9**		**16**
47	**Total Credits at the Community College**	**60-61**	**Total Credits for the 4-Year Degree**	**120**

[1]If a student arrives ready with placement above Pre-calculus, the student will receive 4 additional credits of open electives and four additional credits of open electives for each level of Calculus he/she places out of.

Transfer Pathway and Degree Program
Eastern Connecticut State University

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

Mathematics B.S. – Actuarial Science

For all Mathematics courses number 300 or higher used to satisfy the math major requirement, students must fulfill at least one of the following:

1. C in all these courses OR
2. C+ average in all these courses.

	Community Colleges			CCSU	
			Credits		Credits
	Framework30				
	General Education Requirements				
	Competency				
	Section A				
	Written I	English 101	3	T1 College Writing, Literature and Thought	3
	Written II	Gen Ed	3	T1 College Writing, Literature and Thought	3
	Scientific Reasoning	BIO, CHE or PHY Lab sequence	4	T1 Natural Sciences	4
	Scientific Knowledge	BIO, CHE or PHY Lab sequence	4	T2 Natural Sciences	4
	Quantitative	MAT 185 Trigonometry MAT 186 Pre-Calculus[1]	3-4	T1 Math	4
	Historical Knowledge	Gen Ed	3	T1 Historical Perspectives	3
	Social Phenomena	Gen Ed	3	T1 Social Sciences	3
	Aesthetic Dimensions	Gen Ed	3	T1 Arts in Context	3
	Section B				
	Competency:	Gen Ed	3	T1 FYI 100	3
	Competency:	Gen Ed	3	T1 Health and Wellness	3
	Framework30 Credits		**32-33**		**33**
	Pathway30				
	Additional General Education Courses				
				T2 Cultural Perspectives	3
				T2 Individuals and Societies	3
				T2 Creative Expressions	3
				MAT 315 Applied Probability and Statistics	4
				Tier 3 Capstone (Must be taken at ECSU)	3

26	Students should consider using Open Electives at the community college to complete foreign language requirements		Foreign Language Proficiency: See requirements here. If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly.	6
27	**General Education Credits**	**32-33**		**55**
28	**Major Program Courses**			
29			MAT 230 Discrete Structures	3
30	MAT 254 Calculus I	4	MAT 243 Calculus I with Technology	4
31	MAT 256 Calculus II	4	MAT 244 Calculus II with Technology	4
32			MAT 310 Applied Linear Algebra	3
33			MAT 315 Applied Probability and Statistics See line 24 above	0
34			MAT 320 Number Theory OR MAT 380 Geometry	3
35	MAT 268 Calculus III: Multivariable	4	MAT 340 Calculus III	4
36			MAT 342 Explorations in Data Science	3
37			MAT 355 Probability	3
38			MAT 356 Financial Math	3
39			MAT 420 Real Analysis I	4
40			MAT 421 Real Analysis II	3
41	Introduction to Programming ACC – CSC 106 Structured Programming (3) CCC – CSC 105 Programming Logic (3) GCC – CSC 110 Computer Logic and Problem Solving (3) HCC – CSC 105 Programming Logic (3); CSC 106 Structured Programming (3) MCC – CSC 124 Programming Logic and Design with Python (3); CSC 125 Programming Logic and Design with C++ (3) MXCC – CSC 105 Programming Logic (3)	3	CSC 210 Computer Programming I	3

	NCC – CSC 108 Introduction to Programming (3) NVCC – CSC 205 Visual Basic I (3) NWCC – CSC 104 Introduction to Logic and Programming (4) QVCC – CSC 106 Structured Programming (3) TRCC – CSC 108 Introduction to Programming (4) TXCC – CSC 126 Programming Logic and Design with Visual Basic (3)			
42			CSC 305 Data Mining & Applications OR Approved Data Mining Course	3
43			Two additional MAT courses numbered 300 or above but not MAT 303 or internships	6
44	Select one: MAT 274 Linear Algebra MAT 285 Differential Equations MAT 287 Foundations of Mathematics	4	Will count as: MAT 310 line 32 One of the additional MAT courses line 43 MAT 230 line 29 Credits will adjust accordingly	
45	**Program Course Credits**	**19**		**49**
46	**Open Electives**			
47	**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.**			
48	**Open Elective credits**	**8-9**		**16**
49	**Total Credits at the Community College**	**60-61**	**Total Credits for the 4-Year Degree**	**120**

[1]If a student arrives ready with placement above Pre-calculus, the student will receive 4 additional credits of open electives and four additional credits of open electives for each level of Calculus he/she places out of.

Transfer Pathway and Degree Program
Eastern Connecticut State University

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

Mathematics B.S. – Data Science

For all Mathematics courses number 300 or higher used to satisfy the math major requirement, students must fulfill at least one of the following:

1. C in all these courses OR
2. C+ average in all these courses.

	Community Colleges			CCSU	
			Credits		Credits
	Framework30				
	General Education Requirements				
	Competency				
	Section A				
	Written I	English 101	3	T1 College Writing, Literature and Thought	3
	Written II	Gen Ed	3	T1 College Writing, Literature and Thought	3
	Scientific Reasoning	BIO, CHE or PHY Lab sequence	4	T1 Natural Sciences	4
	Scientific Knowledge	BIO, CHE or PHY Lab sequence	4	T2 Natural Sciences	4
	Quantitative	MAT 185 Trigonometry MAT 186 Pre-Calculus[1]	3-4	T1 Math	4
	Historical Knowledge	Gen Ed	3	T1 Historical Perspectives	3
	Social Phenomena	Gen Ed	3	T1 Social Sciences	3
	Aesthetic Dimensions	Gen Ed	3	T1 Arts in Context	3
	Section B				
	Competency:	Gen Ed	3	T1 FYI 100	3
	Competency:	Gen Ed	3	T1 Health and Wellness	3
	Framework30 Credits		**32-33**		**33**
	Pathway30				
	Additional General Education Courses				
				T2 Cultural Perspectives	3
				T2 Individuals and Societies	3
				T2 Creative Expressions	3
				MAT 315 Applied Probability and Statistics	4
				Tier 3 Capstone (Must be taken at ECSU)	3

26	Students should consider using Open Electives at the community college to complete foreign language requirements		Foreign Language Proficiency: See requirements here. If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly.	6
27	**General Education Credits**	**32-33**		**55**
28	**Major Program Courses**			
29			MAT 230 Discrete Structures	3
30	MAT 254 Calculus I	4	MAT 243 Calculus I with Technology	4
31	MAT 256 Calculus II	4	MAT 244 Calculus II with Technology	4
32			MAT 310 Applied Linear Algebra	3
33			MAT 315 Applied Probability and Statistics See line 24 above	0
34			MAT 320 Number Theory OR MAT 380 Geometry	3
35	MAT 268 Calculus III: Multivariable	4	MAT 340 Calculus III	4
36			MAT 342 Explorations in Data Science	3
37			MAT 420 Real Analysis I	4
38			MAT 421 Real Analysis II	3
39	Introduction to Programming ACC – CSC 106 Structured Programming (3) CCC – CSC 105 Programming Logic (3) GCC – CSC 110 Computer Logic and Problem Solving (3) HCC – CSC 105 Programming Logic (3); CSC 106 Structured Programming (3) MCC – CSC 124 Programming Logic and Design with Python (3); CSC 125 Programming Logic and Design with C++ (3) MXCC – CSC 105 Programming Logic (3) NCC – CSC 108 Introduction to Programming (3)	3	CSC 210 Computer Programming I	3

	NVCC – CSC 205 Visual Basic I (3) NWCC – CSC 104 Introduction to Logic and Programming (4) QVCC – CSC 106 Structured Programming (3) TRCC – CSC 108 Introduction to Programming (4) TXCC – CSC 126 Programming Logic and Design with Visual Basic (3)			
40			CSC 231 Computer Programming II	3
41			CSC 305 Data Mining & Applications OR Approved Data Mining Course	3
42			Three additional MAT courses numbered 300 or above but not MAT 303 or internships	9
43	Select one: MAT 274 Linear Algebra MAT 285 Differential Equations MAT 287 Foundations of Mathematics	4	Will count as: MAT 310 line 32 One of the additional MAT courses line 42 MAT 230 line 29 Credits will adjust accordingly	
44	**Program Course Credits**	**19**		49
45	**Open Electives**			
46	**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.**			
47	**Open Elective credits**	**8-9**		**16**
48	**Total Credits at the Community College**	**60-61**	**Total Credits for the 4-Year Degree**	**120**

[1]If a student arrives ready with placement above Pre-calculus, the student will receive 4 additional credits of open electives and four additional credits of open electives for each level of Calculus he/she places out of.

Transfer Pathway and Degree Program
Southern Connecticut State University

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

Mathematics B.A.

In those mathematics courses which the student applies toward the major in mathematics, he/she must have a GPA of 2.0 and, at most, one grade below C-.

Students must complete 2 "W" course at SCSU.

1	Community Colleges			SCSU	
2			Credits		Credits
3	**Framework30**				
4	**General Education Requirements**				
5	**Competency:**				
6	**Section A**				
7	Written I	English 101	3	FYE	3
8	Written II	Gen Ed	3	Written Communication	3
9	Scientific Reasoning	BIO, CHE or PHY sequence	4	Natural World 1 – Physical Realm	4
10	Scientific Knowledge	BIO, CHE or PHY sequence	4	Natural World II – Life and Environment	4
11	Quantitative	MAT 185 Trigonometry MAT 186 Pre-Calculus[1]	4	Quantitative Reasoning	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 Credits:**				**33**
19	**Pathway30**				
20	**Additional General Education Courses**				
21				*Select three from the following four*	
22				American Experience	0-3
23				Creative Drive	0-3
24				Global Awareness	0-3
25				Mind and Body	0-3
26				**Must be taken at SCSU:**	
27				Tier 3 Connections Capstone	3
28	**General Education Credits**		**33**		**45**
29	**Major Program Courses**				

30	MAT 254 Calculus I	4	MAT 150 Calculus I (C- or better) See line 11 above	4
31	MAT 256 Calculus II	4	MAT 151 Calculus II (C- or better)	4
32			MAT 250 Foundations of Mathematics: An Introduction (C- or better)	3
33	MAT 268 Calculus III: Multivariable	4	MAT 252 Calculus III (C- or better)	4
34			MAT 221 Probability and Statistics I	4
35			MAT 372 Linear Algebra (C- or better)	3
36			MAT 375 Abstract Algebra I	3
37			MAT 450 Analysis	3
38			Select 1: MAT 488 Seminar in Mathematical Modeling MAT 498 Seminar in Mathematics	3
39			Select, with approval of a department advisor, three courses from: MAT 245 Differential Equations MAT 300 History of Mathematics MAT 321 Mathematical Statistics MAT 322 Numerical Analysis I MAT 325 Design of Experiments MAT 326 Regression Analysis MAT 360 Foundations of Geometry MAT 370 Number Theory MAT 376 Abstract Algebra II MAT 378 Discrete Mathematics MAT 398 Special Topics in Mathematics MAT 405 Elementary Mathematics from an Advanced Standpoint MAT 480 Topology MAT 488 Seminar in Mathematical Modeling MAT 498 Seminar in Mathematics	9
40	Introduction to Programming ACC – CSC 106 Structured Programming (3)	3-4	CSC 152 Computer Programming I	3

	CCC – CSC 105 Programming Logic (3) GCC – CSC 110 Computer Logic and Problem Solving (3) HCC – CSC 105 Programming Logic (3); CSC 106 Structured Programming (3) MCC – CSC 124 Programming Logic and Design with Python (3); CSC 125 Programming Logic and Design with C++ (3) MXCC – CSC 105 Programming Logic (3) NCC – CSC 108 Introduction to Programming (3) NVCC – CSC 205 Visual Basic I (3) NWCC – CSC 104 Introduction to Logic and Programming (4) QVCC – CSC 106 Structured Programming (3) TRCC – CSC 108 Introduction to Programming (4) TXCC – CSC 126 Programming Logic and Design with Visual Basic (3)			
41	Select one: MAT 274 Linear Algebra MAT 285 Differential Equations MAT 287 Foundations of Mathematics	4	Will count as MAT 372 line 35 MAT 245 line 39 MAT 250 line 32 Credits will adjust accordingly	
42	**Program Course Credits**	**19-20**		**43**
43	**Open Electives**			
44				
45	**Open Elective credits**	**7-9**		**32**
46	**Total Credits at the Community College**	**60**	**Total Credits for the 4-Year Degree**	**120**

[1]If a student arrives ready with placement above Pre-calculus, the student will receive 4 additional credits of open electives and four additional credits of open electives for each level of Calculus he/she places out of.

Transfer Pathway and Degree Program
Southern Connecticut State University

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

Mathematics B.S. – Concentration: Applied

In those mathematics courses which the student applies toward the major in mathematics, he/she must have a GPA of 2.0 and, at most, one grade below C-.

Students must complete 2 "W" course at SCSU.

1	Community Colleges			SCSU	
2			Credits		Credits
3	**Framework30**				
4	**General Education Requirements**				
5	**Competency:**				
6	**Section A**				
7	Written I	English 101	3	FYE	3
8	Written II	Gen Ed	3	Written Communication	3
9	Scientific Reasoning	BIO, CHE or PHY sequence	4	Natural World 1 – Physical Realm	4
10	Scientific Knowledge	BIO, CHE or PHY sequence	4	Natural World II – Life and Environment	4
11	Quantitative	MAT 185 Trigonometry[1] MAT 186 Pre-Calculus[1]	3-4	Quantitative Reasoning	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 Credits**		**32-33**		33
19	**Pathway30**				
20	**Additional General Education Courses**				
21				*Select three from the following four*	
22				American Experience	0-3
23				Creative Drive	0-3
24				Global Awareness	0-3
25				Mind and Body	0-3
26				***Must be taken at SCSU***	
27				Tier 3 Connections Capstone	3
28	**General Education Credits:**		**33**		**45**
29	**Major Program Courses**				

30	MAT 254 Calculus I	4	MAT 150 Calculus I (C- or better) See line 11 above	0
31	MAT 256 Calculus II	4	MAT 151 Calculus II (C- or better)	4
32			MAT 245 Differential Equations	3
33			MAT 250 Foundations of Mathematics: An Introduction (C- or better)	3
34	MAT 268 Calculus III: Multivariable	4	MAT 252 Calculus III (C- or better)	4
35			MAT 221 Probability and Statistics I	4
36			MAT 322 Numerical Analysis I	4
37			MAT 372 Linear Algebra (C- or better)	3
38			MAT 378 Discrete Mathematics	3
39			MAT 488 Seminar in Mathematical Modeling	3
40			Select 1: MAT 321 Mathematical Statistics MAT 325 Design of Experiments MAT 326 Regression Analysis	3
41			Select 2: MAT 375 Abstract Algebra MAT 450 Analysis MAT 480 Topology	6
42	Introduction to Programming ACC – CSC 106 Structured Programming (3) CCC – CSC 105 Programming Logic (3) GCC – CSC 110 Computer Logic and Problem Solving (3) HCC – CSC 105 Programming Logic (3); CSC 106 Structured Programming (3) MCC – CSC 124 Programming Logic and Design with Python (3); CSC 125 Programming Logic and Design with C++ (3) MXCC – CSC 105 Programming Logic (3) NCC – CSC 108 Introduction to Programming (3)	3-4	CSC 152 Computer Programming I	3

	NVCC – CSC 205 Visual Basic I (3) NWCC – CSC 104 Introduction to Logic and Programming (4) QVCC – CSC 106 Structured Programming (3) TRCC – CSC 108 Introduction to Programming (4) TXCC – CSC 126 Programming Logic and Design with Visual Basic (3)			
43			Select two cognate courses beyond those used to satisfy LEP requirements from any of the following areas of application. Selections must be approved through memo from the Mathematics department to the Registrar's Office Biology Chemistry Computer Science Earth Science Economics Physics Or other approved areas	6
44	Select one: MAT 274 Linear Algebra MAT 285 Differential Equations MAT 287 Foundations of Mathematics	4	Will count as MAT 372 line 37 MAT 245 line 32 MAT 250 line 33 Credits will adjust accordingly	
45	**Program Course Credits:**	**15-16**		**49**
46	**Open Electives**			
47				
48	**Open Elective credits:**	**7-9**		**22**
49	**Total Credits at the Community College**	**60**	**Total Credits for the 4-Year Degree**	**120**

[1]If a student arrives ready with placement above Pre-calculus, the student will receive 4 additional credits of open electives and four additional credits of open electives for each level of Calculus he/she places out of.

Transfer Pathway and Degree Program
Western Connecticut State University

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

Mathematics B.A.

Math Majors must earn a C or better [2]

Math Majors must earn a B of better [3]

1	Community Colleges			CCSU	
2			Credits		Credits
3	**Framework30**				
4	**General Education Requirements**				
5	**Competency:**				
6	**Section A**				
7	Written I	English 101	3	Writing I	3
8	Written II	Gen Ed	3	Writing II	3
9	Scientific Reasoning	BIO, CHE or PHY sequence	4	Scientific Inquiry	4
10	Scientific Knowledge	BIO, CHE or PHY sequence	4	General Education Elective / Second Exposure to Scientific Inquiry	4
11	Quantitative	MAT 185 Trigonometry[1] MAT 186 Pre-Calculus[1]	3-4	Quantitative Reasoning	4
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 / Exploration	3
18	**Framework30 Credits**		**32-33**		**33**
19	**Pathway30**				
20	**Additional General Education Courses**				
	Students complete a two-part general education curriculum: Part I (Foundations) addresses life-long learning in and through 10 competencies. Part II (Exploration) requires students to complete a minimum of 40 credits outside their major. Students must also repeat three different competencies, excluding writing and first-year navigation. *In the Framwork30 portion of the transfer degree, students who complete this TAP degree will receive credit for having met 8 competencies in Foundations, two repeats (Scientific Inquiry and Quantitative Reasoning), and 30 of the 40 credits of Exploration.*				
21				General Education Elective/Second Exposure	3
23				Intercultural Competence	3

24			Health and Wellness	3
25	Students should consider using Open Electives to complete foreign language requirements		A foreign language is required for this major. Follow this link and click on the program sheet for requirements. Three credits of foreign language may count as fulfilling Intercultural Competence	3
26			**Must be taken at WCSU**	
27				
28			Written Communication III—embedded in MAT 450/451 See lines 44 and 45	0
29			Culminating Gen Ed Experience – satisfied by MAT 450/451 See lines 44 and 45	0
30	**General Education Credits:**			**45**
31	**Major Program Courses**			
32			MAT 150 Mathematics Seminar I	.5
33			MAT 151 Mathematics Seminar II	.5
34			MAT 141 Foundational Discrete Mathematics[2]	3
35	MAT 254 Calculus I		MAT 181 Calculus I See line 11 above	0
36	MAT 256 Calculus II	4	MAT 182 Calculus II[3]	4
37			MAT 185 Introduction to Symbolic Computations	3
38			MAT 207 Proofs	3
39			MAT 222 Introductory Statistics	3
40			MAT 272 Introduction to Linear Algebra[2]	3
41	MAT 268 Calculus III: Multivariable	4	MAT 281 Calculus III[2]	4
42			MAT 282 Differential Equations	3
43			MAT 332 Introduction to Applied Mathematics	3
44			MAT 375 Algebraic Structures[2]	3
45			MAT 383 Introduction to Mathematical Analysis	3
46			MAT 450 Senior Seminar I	1.5
47			MAT 451 Senior Seminar II	1.5
48			One course which completes a sequence in Analysis, Algebra or Applied Math	3
49			One elective from the Department's Approved List	3

50			A year sequence from one of the following: BIO, CHE, ECO, PHY, met in the Framework30 above; see lines 9 and 10	
51	Introduction to Programming ACC – CSC 106 Structured Programming (3) CCC – CSC 105 Programming Logic (3) GCC – CSC 110 Computer Logic and Problem Solving (3) HCC – CSC 105 Programming Logic (3); CSC 106 Structured Programming (3) MCC – CSC 124 Programming Logic and Design with Python (3); CSC 125 Programming Logic and Design with C++ (3) MXCC – CSC 105 Programming Logic (3) NCC – CSC 108 Introduction to Programming (3) NVCC – CSC 205 Visual Basic I (3) NWCC – CSC 104 Introduction to Logic and Programming (4) QVCC – CSC 106 Structured Programming (3) TRCC – CSC 108 Introduction to Programming (4) TXCC – CSC 126 Programming Logic and Design with Visual Basic (3)	3	CS 140 Introduction to Programming OR CS 143 Visual BASIC	3
52	Select one: MAT 274 Linear Algebra MAT 285 Differential Equations MAT 287 Foundations of Mathematics	4	Will count as MAT 272 line 40 MAT 282 line 42 MAT 207 line 38 Credits will adjust accordingly	
53	**Program Course Credits:**	**15**		**48**
54	**Open Electives**			
55				

56	**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 WCSU.**			
57	**Open Elective credits:**	**8-9**		**27**
58	**Total Credits at the Community College**	**60-61**	**Total Credits for the 4-Year Degree**	**120**

[1]If a student arrives ready with placement above Pre-calculus, the student will receive 4 additional credits of open electives and four additional credits of open electives for each level of Calculus he/she places out of.

Transfer Pathway and Degree Program
Western Connecticut State University

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

Mathematics B.A. – Computer Science Option

Math Majors must earn a C or better [2]

1	Community Colleges			CCSU	
2			Credits		Credits
3	**Framework30**				
4	**General Education Requirements**				
5	**Competency:**				
6	**Section A**				
7	Written I	English 101	3	Writing I	3
8	Written II	Gen Ed	3	Writing II	3
9	Scientific Reasoning	BIO, CHE or PHY sequence	4	Scientific Inquiry	4
10	Scientific Knowledge	BIO, CHE or PHY sequence	4	General Education Elective / Second Exposure to Scientific Inquiry	4
11	Quantitative	MAT 185 Trigonometry[1] MAT 186 Pre-Calculus[1]	4	Quantitative Reasoning	4
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 / Exploration	3
18	**Framework30 Credits (30-31):**				**33**
19	**Pathway30**				
20	**Additional General Education Courses**				
21	*Students complete a two-part general education curriculum: Part I (Foundations) addresses life-long learning in and through 10 competencies. Part II (Exploration) requires students to complete a minimum of 40 credits outside their major. Students must also repeat three different competencies, excluding writing and first-year navigation.* *In the Framwork30 portion of the transfer degree, students who complete this TAP degree will receive credit for having met 8 competencies in Foundations, two repeats (Scientific Inquiry and Quantitative Reasoning), and 30 of the 40 credits of Exploration.*				
22				General Education Elective/Second Exposure	3
23				Intercultural Competence	3
24				Health and Wellness	3

25	Students should consider using Open Electives to complete foreign language requirements		A foreign language is required for this major. Follow this link and click on the program sheet for requirements. Three credits of foreign language may count as fulfilling Intercultural Competence	3
26			**Must be taken at WCSU**	
27				
28			Written Communication III— embedded in MAT 450/451 See lines 43 and 44	0
29			Culminating Gen Ed Experience – satisfied by MAT 450/451 See lines 43 and 44	0
30	**General Education Credits:**			**45**
31	**Major Program Courses**			
32			MAT 150 Mathematics Seminar I	.5
33			MAT 151 Mathematics Seminar II	.5
34			MAT 165 Introductory Discrete Mathematics[2]	4
35	MAT 254 Calculus I	4	MAT 181 Calculus I[2] See line 11 above	4
36	MAT 256 Calculus II	4	MAT 182 Calculus II[2]	4
37			MAT 207 Proofs[2]	3
38			MAT 272 Introduction to Linear Algebra[2]	3
39	MAT 268 Calculus III: Multivariable	4	MAT 281 Calculus III[2]	4
40			MAT 282 Differential Equations or MAT 222 Introductory Statistics	3
41			MAT 332 Introduction to Applied Mathematics or MAT 359 Theory of Computation	3
42			MAT 375 Algebraic Structures[2]	3
43			MAT 450 Senior Seminar I	1.5
44			MAT 451 Senior Seminar II	1.5
45	Select one: MAT 274 Linear Algebra MAT 285 Differential Equations MAT 287 Foundations of Mathematics	4	Will count as MAT 272 line 38 MAT 282 line 40 MAT 207 line 37 Credits will adjust accordingly	
46			*Computer Science Option Courses:*	
47	Introduction to Programming	3	CS 140 Introduction to Programming	3-4

	ACC – CSC 106 Structured Programming (3) CCC – CSC 105 Programming Logic (3) GCC – CSC 110 Computer Logic and Problem Solving (3) HCC – CSC 105 Programming Logic (3); CSC 106 Structured Programming (3) MCC – CSC 124 Programming Logic and Design with Python (3); CSC 125 Programming Logic and Design with C++ (3) MXCC – CSC 105 Programming Logic (3) NCC – CSC 108 Introduction to Programming (3) NVCC – CSC 205 Visual Basic I (3) NWCC – CSC 104 Introduction to Logic and Programming (4) QVCC – CSC 106 Structured Programming (3) TRCC – CSC 108 Introduction to Programming (4) TXCC – CSC 126 Programming Logic and Design with Visual Basic (3)		CS 143 Visual Basic	
48			CS 170 Computer Science I: Language	4
49			CS 205 Data Modeling and Database Design	4
50			CS 315 Design and Analysis of Algorithms	4
51			Choose one: CS 305 Database Applications Engineering CS 350 Object Oriented Software Engineering CS 360 Distributed Applications Engineering	4

52			A year sequence from one of the following: BIO, CHE, ECO, PHY, met in the Framework30 above; see lines 9 and 10	
53				
54				
55	**Program Course Credits**	19-20		**50-51**
56	**Open Electives**			
57				
58	**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 WCSU.**			
59	**Open Elective credits:**	**8-9**		**21-25**
60	**Total Credits at the Community College**	**60-61**	**Total Credits for the 4-Year Degree**	**120**

[1]If a student arrives ready with placement above Pre-calculus, the student will receive 4 additional credits of open electives and four additional credits of open electives for each level of Calculus he/she places out of.

Credits remaining in the four-year degree
Mathematics B.A.

There are no additional requirements for admission to this program.

1	**Central Connecticut State University**	
2	**Remaining General Education Courses**	
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	Skill Area III – Foreign Language Proficiency See requirements here. If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly.	6
9	**General Education Credits**	**18**
10	**Remaining Major Program Requirements**	
11	**Course**	**Credits**
12	MATH 218 Discrete Mathematics	4
13	MATH 228 Linear Algebra	4
14	MATH 366 Abstract Algebra	4
15	MATH 377 Real Analysis	4
16	MATH 450 Proof Seminar	4
17	*Choose Six (6) credits from the following:* MATH 300, 355, 383, 398, 400, 421, 440, 455, 465, 468, 469, 477, 491 STAT 315, 416, 425, 455, 456, 465, 476 ACTL 335, 465, 481, 482	6
18		
19	MATH 2##/218 line 13 MATH 228 line 14 Or MATH 355 line 18 will have been completed at the community college.	Subtract 3-4
20	**Program Course Credits**	**22-23**
21	**Minor** – Students should consider beginning work on a minor at the community college.	**18-24**
22	**Remaining Open Electives**	
23	**Courses**	**Credits**
24	**Open Elective credits**	0-2
25	**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 CCSU.**	
26	**Total Credits Remaining for the 4-Year Degree**	**60**

Credits remaining in the four-year degree
Mathematics B.A. Actuarial Science Specialization

No minor is required for students selecting this major.

1	**Central Connecticut State University**	
2	**Remaining General Education Courses**	
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	Skill Area III – Foreign Language Proficiency See requirements here. If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly.	6
9	**General Education Credits**	**18**
10	**Remaining Major Program Requirements**	
11	**Course**	**Credits**
12	MAT 218 Discrete Mathematics	4
13	MATH 228 Introduction to Linear Algebra	4
14	STAT 315 Mathematical Statistics I	3
15	STAT 416 Mathematical Statistics II	3
16	STAT 425 Loss and Frequency Distributions and Credibility Theory	3
17	ACTL 335 Theory of Interest	3
18	ACTL 465 Actuarial Models I	4
19	ACTL 466 Actuarial Models II	4
20	Major Electives (as approved by advisor): 18 credits from: ACTL 480 ACTL 481 Review – SOA/CAS Course I ACTL 482 Review – SOA/CAS Course II MATH 300 Mathematics Internship MATH 355 Introduction to Differential Equations with Applications MATH 366 Introduction to Abstract Algebra MATH 377 Introduction to Real Analysis AC 211 Introduction to Financial Accounting AC 212 Introduction to Managerial Accounting CS 151 Computer Science I CS 152 Computer Science II CS 213 Applications of Computing I CS 473 Simulation Techniques ECON 460 Economic Forecasting FIN 295 Managerial Finance FIN 301 Intermediate Managerial Finance FIN 310 Principles of Investments FIN 320 Financial Markets and Institutions FIN 321 Insurance	18

	LAW 250 Legal Environment of Business MGT 295 Fundamentals of Management and Organizational	
21		
22	MATH 218 line 13 MATH 228 line 14 Or MATH 355 line 21 will have been completed at the community college.	Subtract 3-4
23	**Program Course Credits**	**42-43**
24	**Remaining Open Electives**	
25	**Courses**	**Credits**
26	**Open Elective credits**	0
27	**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 CCSU.**	
28	**Total Credits Remaining for the 4-Year Degree**	**60-61**

Credits remaining in the four-year degree
Mathematics B.A. Statistics Specialization

No minor is required for students selecting this major.

1	**Central Connecticut State University**	
2	**Remaining General Education Courses**	
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	Skill Area III – Foreign Language Proficiency See requirements here. If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly.	6
	General Education Credits	**18**
10	**Remaining Major Program Requirements**	
11	**Course**	**Credits**
12	MAT 218 Discrete Mathematics	4
13	MATH 228 Introduction to Linear Algebra	4
14	MATH 366 Abstract Algebra OR MATH 377 Real Analysis	4
15	STAT 215 Statistics for Behavioral Sciences	
16	STAT 315 Mathematical Statistics I	3
17	STAT 416 Mathematical Statistics II	3
18	STAT 216 Statistics for Behavioral Sciences II OR STAT 453 Applied Statistical Analysis	3
19	2 courses chosen from: STAT 425 Loss and Frequency Distributions and Credibility Theory STAT 455 Experimental Design STAT 456/MKT 444 Fundamentals of SAS STAT 465 Nonparametric Statistics STAT 476 Topics in Statistics	6
20	16 credits selected from the courses listed above or from the following: MATH 300 Mathematics Internship MATH 491 Advanced Vector Calculus CS 151 Computer Science I CS 152 Computer Science II CS 253 Data and File Structures CS 473 Simulation Techniques BIO 405 Ecology ECON 460 Economic Forecasting ECON 485 Econometrics GEOG 476 Advanced Cartography	16

	PSY 222 Research Methods in Psychology II PSY 451 Psychological Evaluation ACTL 335 Theory of Interest ACTL 465 Actuarial Models I ACTL 466 Actuarial Models II ACTL 481 Review – SOA/CAS Course I *Strongly Recommended:* CS 151 Computer Science I	
21		
22	MATH 218 line 13 MATH 228 line 14 Or MATH 355 (Not required in the program – so what happens to it at CCSU?) will have been completed at the community college.	Subtract 3-4
23	**Program Course Credits**	**42-43**
24	**Remaining Open Electives**	
25	**Courses**	**Credits**
26	**Open Elective credits**	0
27	**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.**	
28	**Total Credits Remaining for the 4-Year Degree**	**60-61**

Credits remaining in the four-year degree
Mathematics B.A. – Structures & Applications

For all Mathematics courses number 300 or higher used to satisfy the math major requirement, students must fulfill at least one of the following:

1. C in all these courses OR
2. C+ average in all these courses.

1	**Eastern Connecticut State University**	
2	**Remaining General Education Courses**	
3	**Course**	**Credits**
4	*Two of the first four below must be completed at ECSU.*	
5	Cultural Perspectives	3
6	Individuals and Societies	3
7	Creative Expressions	3
8	MATH 315 Applied Probability and Statistics	4
9	Tier 3 Capstone (Must be taken at ECSU)	3
10	Foreign Language Proficiency: See requirements here. If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly.	6
11	**General Education Credits**	**22**
12	**Remaining Major Program Requirements**	
13	**Course**	**Credits**
14	MAT 230 Discrete Structures	3
15	MAT 310 Applied Linear Algebra	3
16	MAT 315 Applied Probability and Statistics See line 8	0
17	MAT 320 Number Theory	3
18	MAT 380 Geometry	3
19	MAT 400 Abstract Algebra I	3
20	MAT 420 Real Analysis I	4
21	MAT 421 Real Analysis II	3
22	Two additional MAT courses numbered 300 or above but not MAT 303 or internships	6
23		
24	One of the following will have been completed at the community college: MAT 230 line 14 MAT 310 line 15 One of the additional MAT courses line 22	Subtract 3
25	**Program Course Credits**	**25**
26	**Remaining Open Electives**	
27	**Courses**	**Credits**
28	**Open Elective credits**	**13**
29	**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.**	
30	**Total Credits Remaining for the 4-Year Degree**	**60**

Credits remaining in the four-year degree
Mathematics B.A. – Math for Teachers

For all Mathematics courses number 300 or higher used to satisfy the math major requirement, students must fulfill at least one of the following:

1. C in all these courses OR
2. C+ average in all these courses.

1	**Eastern Connecticut State University**	
2	**Remaining General Education Courses**	
3	**Course**	**Credits**
4	*Two of the first four below must be completed at ECSU.*	
5	Cultural Perspectives	3
6	Individuals and Societies	3
7	Creative Expressions	3
8	MATH 315 Applied Probability and Statistics	4
9	Tier 3 Capstone (Must be taken at ECSU)	3
10	Foreign Language Proficiency: See requirements here. If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly.	6
11	**General Education Credits**	**22**
12	**Remaining Major Program Requirements**	
13	**Course**	**Credits**
14	MAT 230 Discrete Structures	3
15	MAT 310 Applied Linear Algebra	3
16	MAT 315 Applied Probability and Statistics See line 8	0
17	MAT 320 Number Theory	3
18	MAT 372 Advanced Math for High School Teaching	3
19	MAT 380 Geometry	3
20	MAT 395 History of Math	3
21	MAT 400 Abstract Algebra I	3
22	MAT 420 Real Analysis I	4
23	One additional MAT courses numbered 300 or above but not MAT 303 or internships	3
24	One of the following will have been completed at the community college: MAT 230 line 14 MAT 310 line 15 The additional MAT course line 20	Subtract 3
25	**Program Course Credits**	**25**
26	**Remaining Open Electives**	
27	**Courses**	**Credits**
28	**Open Elective credits**	**13**
29	**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.**	
30	**Total Credits Remaining for the 4-Year Degree**	**60**

Credits remaining in the four-year degree
Mathematics B.S. – Structures & Applications

For all Mathematics courses number 300 or higher used to satisfy the math major requirement, students must fulfill at least one of the following:

1. C in all these courses OR
2. C+ average in all these courses.

1	**Eastern Connecticut State University**	
2	**Remaining General Education Courses**	
3	**Course**	**Credits**
4	*Two of the first four below must be completed at ECSU.*	
5	Cultural Perspectives	3
6	Individuals and Societies	3
7	Creative Expressions	3
8	MATH 315 Applied Probability and Statistics	4
9	Tier 3 Capstone (Must be taken at ECSU)	3
10	Foreign Language Proficiency: See requirements here. If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly.	6
11	**General Education Credits**	**22**
12	**Remaining Major Program Requirements**	
13	**Course**	**Credits**
14	MAT 230 Discrete Structures	3
15	MAT 310 Applied Linear Algebra	3
16	MAT 315 Applied Probability and Statistics See line 8	0
17	MAT 320 Number Theory	3
18	MAT 380 Geometry	3
19	MAT 400 Abstract Algebra I	3
20	MAT 420 Real Analysis I	4
21	MAT 421 Real Analysis II	3
22	Four additional MAT courses numbered 300 or above but not MAT 303 or internships	12
23	One of the following will have been completed at the community college: MAT 230 line 14 MAT 310 line 15 One of the additional MAT courses line 22	Subtract 3
24	**Program Course Credits**	**31**
25	**Remaining Open Electives**	
26	**Courses**	**Credits**
27	**Open Elective credits**	**7**
28	**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.**	
29	**Total Credits Remaining for the 4-Year Degree**	**60**

Credits remaining in the four-year degree
Mathematics B.S. – Actuarial Science

For all Mathematics courses number 300 or higher used to satisfy the math major requirement, students must fulfill at least one of the following:

1. C in all these courses OR
2. C+ average in all these courses.

1	**Eastern Connecticut State University**	
2	**Remaining General Education Courses**	
3	**Course**	**Credits**
4	*Two of the first four below must be completed at ECSU.*	
5	Cultural Perspectives	3
6	Individuals and Societies	3
7	Creative Expressions	3
8	MATH 315 Applied Probability and Statistics	4
9	Tier 3 Capstone (Must be taken at ECSU)	3
10	Foreign Language Proficiency: See requirements here. If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly.	6
11	**General Education Credits**	**22**
12	**Remaining Major Program Requirements**	
13	**Course**	**Credits**
14	MAT 230 Discrete Structures	3
15	MAT 310 Applied Linear Algebra	3
16	MAT 315 Applied Probability and Statistics See line 8	0
17	MAT 320 Number Theory OR MAT 380 Geometry	3
18	MAT 342 Explorations in Data Science	3
19	MAT 355 Probability	3
20	MAT 356 Financial Math	3
19	MAT 420 Real Analysis I	4
20	MAT 421 Real Analysis II	3
21	Two additional MAT courses numbered 300 or above but not MAT 303 or internships	6
22	CSC 305 Data Mining & Applications OR Approved Data Mining Course	3
23	One of the following will have been completed at the community college: MAT 230 line 14 MAT 310 line 15 One of the additional MAT courses line 21	Subtract 3
24	**Program Course Credits**	**31**
25	**Remaining Open Electives**	
26	**Courses**	**Credits**
27	**Open Elective credits**	**7**

28	**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.**	
29	**Total Credits Remaining for the 4-Year Degree**	**60**

Credits remaining in the four-year degree

Mathematics B.S. – Data Science

For all Mathematics courses number 300 or higher used to satisfy the math major requirement, students must fulfill at least one of the following:

1. C in all these courses OR
2. C+ average in all these courses.

1	**Eastern Connecticut State University**	
2	**Remaining General Education Courses**	
3	**Course**	**Credits**
4	*Two of the first four below must be completed at ECSU.*	
5	Cultural Perspectives	3
6	Individuals and Societies	3
7	Creative Expressions	3
8	MATH 315 Applied Probability and Statistics	4
9	Tier 3 Capstone (Must be taken at ECSU)	3
10	Foreign Language Proficiency: See requirements here. If the requirement has been met in whole or in part, general education and open elective credits will adjust accordingly.	6
11	**General Education Credits**	**22**
12	**Remaining Major Program Requirements**	
13	**Course**	**Credits**
14	MAT 230 Discrete Structures	3
15	MAT 310 Applied Linear Algebra	3
16	MAT 315 Applied Probability and Statistics See line 8	0
17	MAT 320 Number Theory OR MAT 380 Geometry	3
18	MAT 342 Explorations in Data Science	3
19	MAT 420 Real Analysis I	4
20	MAT 421 Real Analysis II	3
21	Three additional MAT courses numbered 300 or above but not MAT 303 or internships	9
22	CSC 231 Computer Programming II	3
23	CSC 305 Data Mining & Applications OR Approved Data Mining Course	3
23	One of the following will have been completed at the community college: MAT 230 line 14 MAT 310 line 15 One of the additional MAT courses line 20	Subtract 3
24	**Program Course Credits**	**31**
25	**Remaining Open Electives**	
26	**Courses**	**Credits**
27	**Open Elective credits**	**7**

28	**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.**	
29	**Total Credits Remaining for the 4-Year Degree**	**60**

Credits remaining in the four-year degree
Mathematics B.A.

In those mathematics courses which the student applies toward the major in mathematics, he/she must have a GPA of 2.0 and, at most, one grade below C-.

Students must complete 2 "W" courses at SCSU.

1	**Southern Connecticut State University**	
2	**Remaining General Education Courses**	
3	**Course**	**Credits**
4	*Select three of the following four:*	
5	American Experience	0-3
6	Creative Drive	0-3
7	Global Awareness	0-3
8	Mind and Body	0-3
9	Tier 3 Connections Capstone	3
10	**General Education Credits**	**12**
11	**Remaining Major Program Requirements**	
12	**Course**	**Credits**
13	MAT 250 Foundations of Mathematics: An Introduction (C- or better)	3
14	MAT 221 Probability and Statistics I	4
15	MAT 372 Linear Algebra (C- or better)	3
16	MAT 375 Abstract Algebra I	3
17	MAT 450 Analysis	3
18	Select 1: MAT 488 Seminar in Mathematical Modeling MAT 498 Seminar in Mathematics	3
19	Select, with approval of a department advisor, three courses from: MAT 245 Differential Equations MAT 300 History of Mathematics MAT 321 Mathematical Statistics MAT 322 Numerical Analysis I MAT 325 Design of Experiments MAT 326 Regression Analysis MAT 360 Foundations of Geometry MAT 370 Number Theory MAT 376 Abstract Algebra II MAT 378 Discrete Mathematics MAT 398 Special Topics in Mathematics MAT 405 Elementary Mathematics from an Advanced Standpoint MAT 480 Topology MAT 488 Seminar in Mathematical Modeling MAT 498 Seminar in Mathematics	9
20	One of the following will have been completed at the community college: MAT 372 line 15 MAT 245 line 19	Subtract 3

	MAT 250 line 13	
21	**Program Course Credits**	**25**
22	**Remaining Open Electives**	
23		**Credits**
24	**Open Elective credits**	**23**
25	**Total Credits Remaining for the 4-Year Degree**	**60**

Credits remaining in the four-year degree
Mathematics B.S. – Concentration: Applied

In those mathematics courses which the student applies toward the major in mathematics, he/she must have a GPA of 2.0 and, at most, one grade below C-.

Students must complete 2 "W" courses at SCSU.

1	**Southern Connecticut State University**	
2	**Remaining General Education Courses**	
3	**Course**	**Credits**
4	*Select three of the following four*	
5	American Experience	0-3
6	Creative Drive	0-3
7	Global Awareness	0-3
8	Mind and Body	0-3
9	Tier 3 Connections Capstone	3
10	**General Education Credits**	**12**
11	**Remaining Major Program Requirements**	
12	**Course**	**Credits**
13	MAT 245 Differential Equations	3
14	MAT 250 Foundations of Mathematics: An Introduction (C- or better)	3
15	MAT 221 Probability and Statistics I	4
16	MAT 322 Numerical Analysis I	4
17	MAT 372 Linear Algebra (C- or better)	3
18	MAT 378 Discrete Mathematics	3
19	MAT 488 Seminar in Mathematical Modeling	3
20	Select 1: MAT 321 Mathematical Statistics MAT 325 Design of Experiments MAT 326 Regression Analysis	3
21	Select 2: MAT 375 Abstract Algebra MAT 450 Analysis MAT 480 Topology	6
23	One of the following will have been completed at the community college: MAT 372 line 17 MAT 245 line 13 MAT 250 line 14	Subtract 3
24	Select two cognate courses beyond those used to satisfy LEP requirements from any of the following areas of application. Selections must be approved through memo from the Mathematics department to the Registrar's Office Biology Chemistry Computer Science Earth Science Economics	6

	Physics Or other approved areas	
25	**Program Course Credits**	**35**
26	**Remaining Open Electives**	
27		**Credits**
28	**Open Elective credits**	**13**
29	**Total Credits Remaining for the 4-Year Degree**	**60**

Credits remaining in the four-year degree
Mathematics B.A.

Math Majors must earn a C or better [2]

1	**Western Connecticut State University**	
2	**Remaining General Education Courses**	
3	**Course**	**Credits**
4	*If not already met, the student must complete enough additional credits to add up to a total of 40 credits outside the major to meet the Explorations requirement. The Framework30 portion of the community college degree meets 30 of the 40 credits.* *The student may have used open elective credits at the community college to meet more of this minimum requirement.*	
5	Health and Wellness	3
6	Intercultural Competency	3
7	General Ed Elective/Second Exposure	3
8	A foreign language is required for this major. Follow this link and click on the program sheet for requirements. Three credits of foreign language may count as fulfilling Intercultural Competence	3
9	*The following must be taken at WCSU*	
10	Written Communication III—embedded in MAT 450/451 See lines 27 and 28	0
11	Culminating Gen Ed Experience – satisfied by MAT 450/451 See lines 27 and 28	0
12		
13	**General Education Credits**	**12**
14	**Remaining Major Program Requirements**	
15	**Course**	**Credits**
16	MAT 150 Mathematics Seminar I	.5
17	MAT 151 Mathematics Seminar II	.5
18	MAT 141 Foundational Discrete Mathematics[2]	3
19	MAT 185 Introduction to Symbolic Computations	3
20	MAT 207 Proofs	3
21	MAT 222 Introductory Statistics	3
22	MAT 272 Introduction to Linear Algebra[2]	3
23	MAT 282 Differential Equations	3
24	MAT 332 Introduction to Applied Mathematics	3
25	MAT 375 Algebraic Structures[2]	3
26	MAT 383 Introduction to Mathematical Analysis	3
27	MAT 450 Senior Seminar I	1.5
28	MAT 451 Senior Seminar II	1.5
29	One course which completes a sequence in Analysis, Algebra or Applied Math	3
30	One elective from the Department's Approved List	3
31		
32	One of the following will have been completed at the community college: MAT 272 line 22 MAT 282 line 23	Subtract 3

	MAT 207 line 20	
33		
34	**Program Course Credits**	**34**
35	**Remaining Open Electives**	
36	**Courses**	**Credits**
37	**Open Elective credits**	**14**
38	**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 WCSU.**	
39	**Total Credits Remaining for the 4-Year Degree**	**60**

Credits remaining in the four-year degree
Mathematics B.A. – Computer Science Option

Math Majors must earn a C or better [2]

1	**Western Connecticut State University**	
2	**Remaining General Education Courses**	
3	**Course**	**Credits**
4	*If not already met, the student must complete enough additional credits to add up to a total of 40 credits outside the major to meet the Explorations requirement. The Framework30 portion of the community college degree meets 30 of the 40 credits.* *The student may have used open elective credits at the community college to meet more of this minimum requirement.*	
5	Health and Wellness	3
6	Intercultural Competency	3
7	General Ed Elective/Second Exposure	3
8	A foreign language is required for this major. Follow this link and click on the program sheet for requirements. Three credits of foreign language may count as fulfilling Intercultural Competence	3
9	*The following must be taken at WCSU*	
10	Written Communication III—embedded in MAT 450/451 See lines 24 and 25	0
11	Culminating Gen Ed Experience – satisfied by MAT 450/451 See lines 24 and 25	0
12		
13	**General Education Credits**	**12**
14	**Remaining Major Program Requirements**	
15	**Course**	**Credits**
16	MAT 150 Mathematics Seminar I	.5
17	MAT 151 Mathematics Seminar II	.5
18	MAT 165 Introductory Discrete Mathematics[2]	4
19	MAT 207 Proofs[2]	3
20	MAT 272 Introduction to Linear Algebra[2]	3
21	MAT 282 Differential Equations or MAT 222 Introductory Statistics	3
22	MAT 332 Introduction to Applied Mathematics or MAT 359 Theory of Computation	3
23	MAT 375 Algebraic Structures[2]	3
24	MAT 450 Senior Seminar I	1.5
25	MAT 451 Senior Seminar II	1.5
26	*Computer Science Option:*	
27	CS 170 Computer Science I: Language	4
28	CS 205 Data Modeling and Database Design	4
29	CS 315 Design and Analysis of Algorithms	4
30	Choose one: CS 305 Database Applications Engineering CS 350 Object Oriented Software Engineering CS 360 Distributed Applications Engineering	4
31		

32	One of the following will have been completed at the community college: MAT 272 line 20 MAT 282 line 21 MAT 207 line 19	Subtract 3
33		
34	**Program Course Credits**	**35**
35	**Remaining Open Electives**	
36	**Courses**	**Credits**
37	**Open Elective credits**	**13**
38	**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 WCSU.**	
39	**Total Credits Remaining for the 4-Year Degree**	**60**