Baccalaureate Degree Plan

NCCCS Associate in Arts *or* Associate in Science
transfer to
East Carolina University, **BS MATHEMATICS**

Credit toward a mathematics major will not be given in any MATH course with a grade less than C- (1.7).

The degree offers four concentration areas
- Computer Science
- Mathematics
- Science
- Statistics

As a transfer student, it is important to contact an ECU Academic Advisor, thcasadvising@ecu.edu, as soon as possible.

An example of how to plan your first 2 years of the traditional 4 years of study is included at the end of this document. However, depending on when you transfer and how many recommended courses you take at the community college, it may take longer than 4 years to complete any degree at ECU.

Optional/Recommended courses to take at a North Carolina Community College

ENG 111	HEA 110	MAT 171
ENG 112		MAT 172
		MAT 271
		MAT 272
		MAT 273
		MAT 280
		MAT 285

- It is unlikely you will complete all recommended MAT courses before transferring; *that is okay!*

- Other courses to complete an AA or AS are student's choice; no other current department recommendations. Other equivalent courses may be listed in the degree requirements.

- Completion of an approved NCCCS AA or AS waives the General Education requirement. For more information about the waiver, click here.

- For more information about General Education Core Requirements at ECU, and a list of specific course options, click here.

- You do not have to complete all NCCCS equivalents or recommended courses before transferring. However, taking minimal recommendations may prolong your time to degree at ECU.

General Education Core Requirements

40 semester hours credit required; <u>completion of an approved AA or AS waives this requirement.</u>

Competency	Semester Hour Credits Required	Notes
Written Communication	6	*ENG 111 and ENG 112 should be taken at the community college to satisfy this competency.*
Humanities & Fine Arts	9	*At least one class should be labeled as Humanities (HU) and one should be labeled as Fine Arts (FA).*
Social Sciences	9	*NCCCS HIS courses are not considered a social science at ECU.*
Natural Sciences	7	*One course must include a lab.*
Mathematics	3	*Choose MAT 171.*
Health Promotion and Health-Related Physical Activity	3	*HEA 110 should be taken at the community college to satisfy this competency.*

Common Mathematics Core	Complete 37 hours. CSCI 1010 - Algorithmic Problem Solving CSCI 1011 - Algorithmic Problem Solving Lab MATH 2171 - Calculus I MATH 2172 - Calculus II MATH 2173 - Calculus III MATH 2300 - Transition to Advanced Mathematics MATH 3256 - Linear Algebra MATH 3263 - Introduction to Modern Algebra MATH 3307 - Mathematical Statistics I MATH 3308 - Mathematical Statistics II MATH 3331 - Introduction to Ordinary Differential Equations MATH 4101 - Advanced Calculus I	*NCCCS Equivalents* *MAT 271* *MAT 272* *MAT 273* *MAT 280* *MAT 285*

Concentrations	Complete 18-33 hours by choosing one concentration.	
Computer Science	Complete 19 hours: CSCI 2410 - Digital Logic Design **or** EENG 2410 - Digital Electronics **or** CSCI 3675 - Principles of Programming Languages **or** MATH 4110 - Elementary Complex Variables CSCI 2400 - Discrete Structures I CSCI 2405 - Discrete Structures II CSCI 2530 - Algorithms and Data Structures CSCI 2540 - Data Abstraction and Object-Oriented Data Structures CSCI 3650 - Design and Analysis of Algorithms	*Courses to be completed at ECU.*
Mathematics	Complete 21-33 hours. MATH 4110 - Elementary Complex Variables Minor (18-30 hours)	*Courses to be completed at ECU.*

Science	Complete 27-28 hours.	*NCCCS Equivalents*
	CHEM 1150 - General Chemistry I	*CHM 151*
	CHEM 1151 - General Chemistry Laboratory I	
	CHEM 1160 - General Chemistry II	*CHM 152*
	CHEM 1161 - General Chemistry Laboratory II	
	MATH 4110 - Elementary Complex Variables	
	PHYS 2350 - University Physics I	*PHY 251*
	PHYS 2360 - University Physics II	*PHY 252*
	Choose from the following:	
	BIOL 1100 - Principles of Biology I and	*BIO 111*
	BIOL 1101 - Principles of Biology Laboratory I and	
	BIOL 1200 - Principles of Biology II and	*BIO 112*
	BIOL 1201 - Principles of Biology Laboratory II	
	or	
	A combination of any 3 courses numbered above 1999 in chemistry or numbered above 2999 in physics	
Statistics	Complete 18 hours.	*Courses to be completed at ECU.*
	MATH 4005 - Introduction to Sampling and Experimental Design	
	MATH 4031 - Applied Statistical Analysis	
	MATH 4100 - Mathematics of Risk Analysis **or**	
	MATH 4300 - Financial and Actuarial Mathematics	
	MATH 4201 - Introduction to Stochastic Processes	
	MATH 4774 - Programming for Research	
	MATH 4801 - Probability Theory	

Restricted Electives	Complete 3-12 hours. (By concentration)	*Courses to be completed at ECU.*
	Computer science concentration - 9 hours	
	Choose a 3-hour MATH course numbered above 2999.	
	Choose 6 hours of CSCI electives numbered above 1999.	
	Mathematics concentration - 9 hours	
	Choose 9 hours of MATH courses numbered above 2999.	
	Science concentration - 3 hours	
	Choose a 3-hour MATH course numbered above 2999.	
	Statistics concentration - 12 hours	
	Choose 12 hours of electives from:	
	ECON 4443 - Econometrics	
	OMGT 4493 - Quality Management	
	MATH courses numbered above 2999	

General Electives	Complete required minor and general electives needed for graduation requirements.	

Potential 2 Year Map for BS Mathematics

An example of courses to take at your community college.

First Semester at NCCCS Institution

NCCCS Course	ECU Transfer Equivalent
ENG 111	*ENGL 1100*
Humanities/Fine Arts course or BIO 111 or CHM 151	*BIOL 1100, 1101 or CHEM 1150, 1151*
MAT 171	*MATH 1065*
HEA 110	*HLTH 1000/KINE 1000*
ACA 122	*COAD 1XXX (elective credit)*

Second Semester at NCCCS Institution

NCCCS Course	ECU Transfer Equivalent
ENG 112	*ENGL 2201*
Social Behavioral Science course or BIO 112 or CHM 152	*BIOL 1200, 1201 or CHEM 1160, 1161*
Humanities/Fine Arts Course	
Elective course	
MAT 172	*MATH 1083*

Third Semester at a NCCCS Institution

NCCCS Course	ECU Transfer Equivalent
MAT 271	*MATH 2171*
Natural Science course *(Students pursuing the Science concentration may choose BIO 111 or CHM 151.)*	
Social Behavioral Science course	
Elective course	
Additional General Education or Elective course	

Fourth Semester at a NCCCS Institution

NCCCS Course	ECU Transfer Equivalent
MAT 272	
Social Behavioral Science course	*MATH 2172*
Elective course or 2nd Natural Science	
Humanities/Fine Arts course	
MAT 280 (if offered)	*MATH 3256*

- Schedule at ECU will depend on courses completed at the community college and semester of entry (fall or spring).

- You should email thcasadvising@ecu.edu as soon as possible for more specialized advising.

- This schedule is dependent on taking full-time course loads; however, it may not be realistic to take a full-time course load if you are working full-time or part-time, are a caregiver, or have other obligations. *Ask your advisor how you can be most successful.*