



Baccalaureate Degree Plan

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

The Physics, BS has two concentrations:

- Professional
- Research

The professional concentration is for students interested in employment in technical fields, teaching physics and physical science in secondary schools, or in graduate study in health fields (e.g. dentistry, medicine, and physical therapy), business, engineering, environmental science, or related technical fields, depending on elective choices. The research concentration is for students interested in graduate study in physics.

Transfer students should email an Academic Advisor as soon as possible, thcasadvising@ecu.edu.

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.

Recommended courses to take at a North Carolina Community College

CHM 151	ENG 111	MAT 171	PHY 151
CHM 152	ENG 112	MAT 172	PHY 152
		MAT 271	PHY 251
	HEA 110	MAT 272	PHY 252
		MAT 273	
		MAT 285	

- 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.

Degree Requirements

General Education Core Requirements

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

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

Specific General Education Requirements	As part of completing the 40 required hours, please include: CHEM 1150 - General Chemistry I CHEM 1151 - General Chemistry Laboratory I CHEM 1160 - General Chemistry II MATH 1065 - College Algebra	<i>NCCCS Equivalents</i> <i>CHM 151</i> <i>CHM 152</i> <i>MAT 171</i>
--	--	--

Concentrations	Complete 29-41 hours by choosing one concentration.	
Professional	<p>Professional concentration (29 s.h.)</p> <p>PHYS 1251 - General Physics Laboratory I PHYS 1261 - General Physics Laboratory II PHYS 2001 - Undergraduate Seminar in Physics PHYS 2350 - University Physics I PHYS 2360 - University Physics II PHYS 3416 - Modern Physics I PHYS 3417 - Modern Physics II PHYS 4700 - Advanced Laboratory PHYS 4701 - Advanced Laboratory Choose 9 s.h. of electives</p> <p><i>Note: Electives for the professional concentration may include PHYS 2716, PHYS courses above 2999 and/or CHEM 3950. A maximum of 3 s. h. of independent study courses (PHYS 2716, PHYS 3516, PHYS 3517, PHYS 3518, PHYS 3716, PHYS 3717, and PHYS 3718) may be used to fulfill the 9 s. h. of electives requirement. PHYS 4950 may not count as an elective.</i></p>	<i>PHY 151</i> <i>PHY 152</i> <i>PHY 251</i> <i>PHY 252</i>
Research	<p>Research concentration (41 s.h.)</p> <p>PHYS 1251 – General Physics Laboratory I PHYS 1261 – General Physics Laboratory II PHYS 2001 – Undergraduate Seminar in Physics PHYS 2350 – University Physics I PHYS 2360 – University Physics II PHYS 3416 – Modern Physics I</p>	<i>PHY 151</i> <i>PHY 152</i> <i>PHY 251</i> <i>PHY 252</i>

	PHYS 3417 – Modern Physics II PHYS 3560 – Mathematical Methods for Physics PHYS 4120 – Thermodynamics PHYS 4226 – Mechanics I PHYS 4326 – Electricity and Magnetism I PHYS 4410 – Quantum Physics PHYS 4700 – Advanced Laboratory PHYS 4701 – Advanced Laboratory Choose 6 s.h. of PHYS electives from PHYS 2716 and/or courses above 2999. (See note.) <i>Note: Electives for the research concentration may include a maximum of 3 s. h. of independent study courses (PHYS 2716, PHYS 3516, PHYS 3517, PHYS 3518, PHYS 3716, PHYS 3717, and PHYS 3718). PHYS 4950 may not count as an elective.</i>	
Cognates	Complete 18-20 hours.	<i>NCCCS Equivalents</i>
Professional Concentration	CHEM 1161 - General Chemistry Laboratory II MATH 1083 - Introduction to Functions MATH 2171 - Calculus I MATH 2172 - Calculus II or MATH 2152 - Engineering Calculus II MATH 2154 - Engineering Linear Algebra and Differential Equations I or MATH 3331 - Introduction to Ordinary Differential Equations MATH 2173 - Calculus III or MATH 2153 - Engineering Calculus III	<i>CHM 152</i> <i>MAT 172</i> <i>MAT 271</i> <i>MAT 272</i> <i>MAT 273</i>
Research Concentration	CHEM 1161 - General Chemistry Laboratory II MATH 1083 - Introduction to Functions MATH 2171 - Calculus I MATH 2172 - Calculus II MATH 2173 - Calculus III MATH 3331 - Introduction to Ordinary Differential Equations	<i>CHM 152</i> <i>MAT 172</i> <i>MAT 271</i> <i>MAT 272</i> <i>MAT 273</i>
Electives	Complete requirements for graduation.	

Potential 2 Year Map for BS PHYSICS

An example of courses to take at your community college.

First Semester at NCCCS Institution

NCCCS Course	ECU Transfer Equivalent
ENG 111	ENGL 1100
CHM 151	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
Humanities/Fine Arts course	
CHM 152	CHEM 1160, 1161
Social Behavioral Science course	
MAT 172	MATH 1083

Third Semester at a NCCCS Institution

NCCCS Course	ECU Transfer Equivalent
MAT 271	MATH 2171
Humanities/Fine Arts course	
Social Behavioral Science course	
PHY 151	PHYS 1250, 1251
Elective course	

Fourth Semester at a NCCCS Institution

NCCCS Course	ECU Transfer Equivalent
MAT 272	MATH 2172
PHY 152	PHYS 1260, 1261
Elective course	
Elective course	
Elective course (if needed)	

- 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.**