

## ASSOCIATE in SCIENCE (AS) PRE-ENGINEERING Degree

Name:	Advisor:	Date:
<p>The Associate in Science Pre-Engineering degree is designed for students who plan to transfer to four-year colleges and universities. This degree fulfills general education requirements for engineering majors at most North Carolina colleges and universities. The degree will transfer as a block to North Carolina public universities and other institutions which participate in the Comprehensive Articulation Agreement (CAA). For additional information about this degree and your transfer options, visit or call the Career Transfer Resource Center, Wilson Building Room C1034, (919)209-2128 or the Center for Academic Planning, Wilson C1214, (919) 464-2267.</p>		

### 65 Credits (course numbered 110 and above) required for degree

General Education Core Requirements (65 credits)	Credits Required	Credits Completed	Term
<b>English Composition (6 credits)</b>			
ENG 111	3		
ENG 112 or ENG 113	3		
<b>Humanities and Fine Arts (6 credits)</b>			
ENG 131 or ENG 233 or ENG 243 (must meet prereqs)	3		
HUM/FA	3		
<b>Mathematical Studies (9 credits)</b>			
MAT 271	4		
MAT 272	4		
MAT 273	4		
<b>Natural Science (8 credits)</b>			
PHY 251	4		
PHY 252	4		
<b>Social and Behavioral (6 credits)</b>			
HIS 111 or HIS 112 or HIS 131 or HIS 132	3		
SB	3		
<b>Additional required courses</b>			
CHM 151	4		
HEA 110	3		
PED 110	2		
PED	1		
CSC 134 or CSC 136 or CSC151	3		
EGR 150	2		
EGR 220	3		
EGR 225	3		
EGR 228	3		
EGR 230	3		
MAT 280 or MAT 285	3		
<b>Total</b>	<b>65</b>		

**\*\*\*Students should consult with the transfer institution for specific pre-engineering major general education requirements. Foreign language and health and physical education requirements may be required prior to or after transfer to the institution of choice.**

## Associate in Science (AS) Pre-Engineering Course Options

This list of courses has been approved by the North Carolina public universities and other institutions as transferable under the Comprehensive Articulation Agreement. This list represents courses typically offered at Johnston Community College. A comprehensive list of approved CAA courses is available in the Center for Academic Planning and Registrars Office.

Students planning to transfer to a four-year college or university should consult and verify degree and program requirements at the institution where you plan to transfer.

### Humanities and Fine Arts

ART 111	Art Appreciation
ART 114	Art History I
ART 115	Art History II
COM 110	Intro to Comm.
COM 231	Public Speaking
MUS 110	Music Appreciation
MUS 113	American Music
MUS 210	History of Rock
MUS 211	History of Country
PHI 210	History of Philosophy
PHI 215	Philosophical Issues
PHI 230	Intro to Logic
PHI 240	Intro to Ethics
REL 110	World Religions
REL 211	Intro to Old Testament
REL 212	Intro to New Testament
REL 221	Religion in America
SPA 111	Elementary Spanish I
SPA 112	Elementary Spanish II
SPA 211	Intermediate Spanish I
SPA 212	Intermediate Spanish II

**Students must verify and adhere to course prerequisites stated in the JCC Course Catalogue.**

**Consult the catalog of the four-year school where you plan to transfer for specific requirements.**

### Social & Behavioral Sciences

ECO 251	Microeconomics
ECO 252	Macroeconomics
GEO 111	World Geography
GEO 130	Physical Geography
HIS 111	World Civilizations I
HIS 112	World Civilizations II
HIS 131	American History I
HIS 132	American History II
POL 110	Intro to Pol. Science
POL 120	American Government
PSY 150	General Psychology
PSY 241	Developmental Psych.
SOC 210	Intro to Sociology
SOC 213	Soc. of the Family

### Natural Science Sequence

PHY 251	General Physics I &
PHY 252	General Physics I

*\*Some science courses may require corequisite labs.( ex. CHM 151 & CHM 151A)*

### Mathematics

MAT 271	Calculus I
MAT 272	Calculus II
MAT 273	Calculus III
MAT 280	Linear Algebra
MAT 285	Differential Equations

### AS Electives

BIO 110	Princ. of Biology
BIO 111	General Biology I
BIO 112	General Biology II
BIO 120	Intro Botany
BIO 130	Intro Zoology
BIO 140	Envir. Biology
BIO 163	Basic Anat. Phys
BIO 165	Anat. & Phys. I
BIO 166	Anat. & Phys. II
BIO 175	Gen. Microbiology
BIO 275	Microbiology
CHM 131*	Intro to Chemistry
CHM 151*	General Chem. I
CHM 152*	General Chem. II
CIS 110	Intro to Computers
CIS 115	Prog. & Logic
CSC 134	C++ Program.
CSC 136	Fortran Program.
CSC 151	JAVA Program.
EGR 150>	and above
GEL 111	Intro Geology
MAT 161	College Algebra
MAT 162	College Trig.
MAT 165	Finite Math
MAT 171	Pre-calculus Alg
MAT 172	Pre-calculus Trig
MAT 175	Precalculus
MAT 151	Statistics I
MAT 175	Precalculus
MAT 263	Brief Calculus
MAT 271	Calculus I
MAT 272	Calculus II
MAT 273	Calculus III
MAT 280	Linear Algebra
MAT 285	Diff. Equations
PHY 151*	College Physics I
PHY 152*	College Physics II
PHY 251	General Physics I
PHY 252	General Physics II
PED 110	and above