

Rowan College of South Jersey
ENGINEERING SCIENCE
Associate in Science (A.S.) – Transfer
Program Requirements

The goal of this program is to provide the first two years of an Engineering Science baccalaureate degree program for students who wish to transfer to a four-year institution as an engineering science major. Students who have completed the program will be able to:

- Analyze and understand engineering designs
- Deliver an effective and informative professional engineering presentation
- Demonstrate an understanding of engineering materials used in different fields

Required Core and Elective Courses		Credits
<u>Communications</u>		
ENG 101	English Composition I	3
ENG 102	English Composition II	3
<u>Humanities/Social Sciences</u>		
PHI 104	Ethics	3
___ ___	Humanities or Social Science Elective	3
___ ___	Humanities Elective	3
<u>Mathematics</u>		
MAT 108	Calculus I	4
MAT 122	Calculus II	4
MAT 221	Calculus III	4
MAT 205	Differential Equations	4
<u>Computer Science</u>		
CSC 205	Programming in C++	4
<u>Science</u>		
CHM 111	General Chemistry I	4
CHM 112	General Chemistry II or	
___ ___	Program Elective	3-4
PHY 201	Physics I (calculus-based)	4
PHY 202	Physics II (calculus-based) OR Program Elective	3-4
<u>Technical</u>		
ENR 102	First Year Engineering Clinic I	2
ENR 103	First Year Engineering Clinic II	2
ENR 201	Sophomore Engineering Clinic I	1
ENR 202	Sophomore Engineering Clinic II	1
ENR 207	Engineering Materials OR Program Elective	3-4
<u>HPE or Free</u>		
___ ___	Physical Education Elective OR Free Elective OR Program Elective	1-4
___ ___	Physical Education Elective OR Free Elective OR Program Elective	1-4

TOTAL MINIMUM CREDITS: 60

¹Students planning to transfer to Rowan University should take the following courses. A maximum of 5 program electives selected from the ones listed below are required for the A.S. degree. Rowan University may require additional courses not offered at this institution.

²Students wishing to take additional program electives are encouraged to declare a Secondary Program of study by enrolling in an Engineering Science Certificate of Achievement. Financial aid will NOT cover the additional program electives UNLESS you are enrolled in a Certificate of Achievement.

³Students should review requirements at their transfer institutions. ENR 103, ENR 201, ENR 202 may not transfer to some institutions, please see an advisor for a graduation variance.

Mechanical²	Electrical/Computer²	Civil²	Chemical²	Biomedical²
PHY 202	PHY 202	MAT 202	CHM 112	CHM 112
ENR 207	MAT 202	SPE 101	MAT 202	PHY 202
MAT 202	SPE 101	GEO 115	SPE 101	MAT 202
SPE 101	CSC 220	ENR 207	CHM201	SPE 101
ENR 211	ENR 108	ENR 211	CHM 202	BIO 101
ENR 212	ENR 218	ENR 212		
ENR 213		ENR 213		
		CET 108		
		DFT 103		

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Four Semester Sequence of Courses

<u>FIRST YEAR - Fall Semester</u>	<u>Credits</u>
_____ CHM 111 General Chemistry I	4
_____ CSC 205 Programming in C++	4
_____ ENG 101 English Composition I	3
_____ MAT 108 Calculus I	4
_____ ENR 102 First Year Engineering Clinic I	2
	17
<u>Spring Semester</u>	
_____ CHM 112 General Chemistry II OR Program Elective ¹	3-4
_____ PHY 201 Physics with Calculus I	4
_____ ENR 103 First Year Engineering Clinic II ³	2
_____ ENR 207 Engineering Materials OR Program Elective ¹	3-4
_____ MAT 122 Calculus II	4
	16-18
<u>SECOND YEAR - Fall Semester</u>	
_____ ENG 102 English Composition II	3
_____ ENR 201 Sophomore Engineering Clinic I ³	1
_____ MAT 221 Calculus III	4
_____ _____ HPE OR Free Elective OR Program Elective ¹	1-4
_____ PHY 202 Physics with Calculus II OR Program Elective ¹	3-4
_____ _____ Humanities OR Social Science Elective	3
	15-18
<u>Spring Semester</u>	
_____ MAT 205 Differential Equations	4
_____ ENR 202 Sophomore Engineering Clinic II ³	1
_____ _____ HPE OR Free Elective OR Program Elective ¹	1-4
_____ _____ Humanities Elective	3
_____ PHI 104 Ethics	3
	12-15
TOTAL MINIMUM CREDITS: 60	

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ENR 207	MAT 202	SPE 101	MAT 202	PHY 202
MAT 202	SPE 101	GEO 115	SPE 101	MAT 202
SPE 101	CSC 220	ENR 207	CHM201	SPE 101
ENR 211	ENR 108	ENR 211	CHM 202	BIO 101
ENR 212	ENR 218	ENR 212		
ENR 213		ENR 213		
		CET 108		
		DFT 103		