

Program: EGR.AS Engineering AS (60 credits)	Division: STEM
Student:	ID#:
	Catalog Year: 2024-2025

Developmental Education Courses (if required)								
<input type="checkbox"/>	EAP-018	Intensive Academic English	<input type="checkbox"/>	MAT-020	Basics of College Math	<input type="checkbox"/>	COM-017/019	Foundational Reading/Writing
<input type="checkbox"/>	EAP-020/040	EAP Reading I and Writing I	<input type="checkbox"/>	MAT-03_		<input type="checkbox"/>	COM-097	Academic Literacy I
<input type="checkbox"/>	EAP-050/060	EAP Writing II and Reading II				<input type="checkbox"/>	COM-098	Academic Literacy II

SEMESTER BY SEMESTER MAP FOR FULL-TIME STUDENTS

Courses are listed in preferred order of completion. Plans may be modified by adding more semesters.

SEMESTER 1 – Fall (13 credits)					
	Course#	Course Name	Cr.	Pre-requisites/ Co-requisites	Semesters
G	CSS-103 *	College Success Strategies	3		All & OL
G	COM-121*	English Composition I	3	COM-098 or EAP-050 and EAP-060 with grades of "C" or better; or placement by exam	All
G	MAT-220	Calculus I	4	MAT-180 or MAT-160 and MAT-165	Fall, Su & OL
M	EGR-104	Introduction to Engineering Design	3	MAT-110, COM-098 or EAP-050 and EAP-060	Fall

SEMESTER 2 – Spring (15 credits)					
	Course#	Course Name	Cr.	Pre-requisites/ Co-requisites	Semesters
G	COM-151*	Fundamentals of Speech	3	COM-098 or EAP-050 and EAP-060 or placement by appropriate score on placement test	All & OL
G	MAT-221	Calculus II	4	MAT-220 Calculus I	SP & SU
G	CHE-150	Chemistry I	4	CHE-120 or high school chemistry with a "C" or better; MAT-110 with a "C" or better (or sufficient placement test score)	Fall & Spring
E	EGR elective	Program Elective	4		Spring

SEMESTER 3 – Fall (16 credits)					
	Course#	Course Name	Cr.	Pre-requisites/ Co-requisites	Semesters
G	COM-141	Technical Writing	3	COM 121* with "C" or better	All & OL
G	HUM	Humanities elective	3	COM 121* with "C" or better	All & OL
G	PHY-250	College Physics I	4	MAT 220 and PHY 120 (with grade of "C" or better or high school Physics with a grade of "C" or better)	Fall
M	MAT-222	Calculus III	4	MAT-221	Fall/Su
E	EGR elective	Program Elective	2		

SEMESTER 4 – Spring (16 credits)					
	Course#	Course Name	Cr.	Pre-requisites/ Co-requisites	Semesters
G	SOC	Social Science elective	3	COM-098 or EAP-050 and EAP-060 with grades of "C" or better (or sufficient placement test score)	All & OL
M	MAT-282	Ordinary and Partial Differential Equations	4	MAT-221	Spring
M	EGR-110	Programming for Engineers	3	MAT-220, COM-098 or EAP-050 and EAP-060	Spring
M	PHY-255	College Physics II	4	PHY-250; MAT-221	Spring
E	EGR elective	Engineering elective	2		

*Sections of these courses offered in the Honors Program, check <https://www.racc.edu/academics/honors-program> for details. **Online (OL)** may not be offered every semester. Please check the schedule.

Engineering electives – See table below

Date created: September 2019	Updated: July 2024	All = Fall/Spring/Summer; OL = Online M = Major; E = Elective; G = GenEd
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Engineering electives:			
Course No.	Name	Credits	Pre-requisites
BIO-150	Biology I	4	MAT-030 Algebra I (or sufficient placement test score); COM-098 or ESL-050 and ESL-060; CHE-120 or high school chemistry with a "C" or better
BIO-155	Biology II	4	Biology I with a "C" or better
CHE-155	Chemistry II	4	CHE-150 with a "C" or better; MAT-160 or better
CHE-250	Organic Chemistry	4	CHE-150 with a "C" or better
EGR-102	Shop Machinery and Engineering Graphics	3	MAT-035 (Algebra with Quadratics) with a "C" or better
EGR 220	Statics	3	PHY 240 OR PHY 250 with "C" or better AND MAT 220 OR [MAT 160 and MET-160 with "C" or better
MET-130	Industrial Electrical Systems	5	MAT 030 or MAT 035 with "C" or better (or sufficient placement test score)
MET 111	Fundamentals of Manufacturing	1	MAT 035 with a "C" or better or by placement
MET-140A & MET-140B	Introduction to PLC's I & Introduction to PLC's II	4	MET-130 (Industrial Electrical Systems) MET-140A (Introduction to PLC's I)

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