Program:	EGR.AS Engineering AS (60 credits)		Division: STEM	
Student:		ID#:	Catalog Year: 2023-2024	

Developmental Education Courses (if required)							
☐	EAP-018	Intensive Academic English	☐	MAT-020	Basics of College Math	☐	COM-017/019	Foundational Reading/Writing
☐	EAP-020/040	EAP Reading I and Writing I	☐	MAT-03_		☐	COM-097	Academic Literacy I
☐	EAP-050/060	EAP Writing II and Reading II				☐	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
	CSS-103 *	College Success Strategies	3		All & OL
	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
	MAT-220	Calculus I	4	MAT-180 or MAT-160 and MAT-165	Fall, Su & OL
	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
	COM-151*	Fundamentals of Speech	3	COM-098 or EAP-050 and EAP-060 or placement by appropriate score on placement test	All & OL
	MAT-221	Calculus II	4	MAT-220 Calculus I	SP & SU
	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 & Sp
	EGR elective	Program Elective	4		Spring

SEMESTER 3 – Fall (16 credits)					
√	Course#	Course Name	Cr.	Pre-requisites/ Co-requisites	Semesters
	COM-141	Technical Writing	3	COM 121 or COM 122 (with grade of C or better)	All & OL
	HUM	Humanities elective	3	COM 121 or COM 122 (with grade of C or better)	All & OL
	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
	MAT-222	Calculus III	4	MAT-221	Fall/Su
	EGR elective	Program Elective	2		

SEMESTER 4 – Spring (16 credits)					
√	Course#	Course Name	Cr.	Pre-requisites/ Co-requisites	Semesters
	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
	MAT-282	Ordinary and Partial Differential Equations	4	MAT-221	Spring
	EGR-110	Programming for Engineers	3	MAT-220, COM-098 or EAP-050 and EAP-060	Spring
	PHY-255	College Physics II	4	PHY-250; MAT-221	Spring
	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

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 a "C" or better AND MAT 220 or MAT 160 with a "C" or better AND MET 160 with a "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)