

## Mechanical Engineering Curriculum Guide

*Effective Fall 2020 (IMPORTANT: Courses in BOLD require minimum grade of C-)*

First Year		Sophomore Year		Junior Year		Senior Year	
<b>Fall Semester</b>	<b>16</b>	<b>Fall Semester</b>	<b>16</b>	<b>Fall Semester</b>	<b>14</b>	<b>Fall Semester</b>	<b>12</b>
First Year Clinic 1 (ENGR 01.101)	2	Sophomore Clinic 1 (ENGR 01.201)	4	Junior Clinic (ENGR 01.303)	2	Senior Clinic (ENGR 01.403)	2
<b>Calculus I (MATH 01.130)</b>	4	<b>Calculus III (MATH 01.230)</b>	4	Fluid Mechanics for ME (ME 10.330)	3	Dynamic Systems & Control (ME10.345)	4
Chemistry I (CHEM 06.100)	4	Intro Elect. & Magnetism (PHYS 00.222)	4	Strength of Materials (ENGR 01.273)	3	Quality & Reliability (ME 10.342)	3
<b>Intro Scientific Program: Matlab/CAD (CS 01.104)</b>	3	Manufacturing & Measurement Tech (ME 10.210)	2	Intro Numerical Analysis (MATH 01.332) OR Principles & Apps. of ECE (ECE 09.205)	3	Technical Elective I ( <i>see notes below</i> )	3
<i>Rowan Core elective</i>	3	<b>Statics (ENGR 01.271)</b>	2	<i>Rowan Core elective</i>	3		
<b>Spring Semester</b>	<b>16</b>	<b>Spring Semester</b>	<b>17</b>	<b>Spring Semester</b>	<b>15</b>	<b>Spring Semester</b>	<b>14</b>
First Year Clinic 2 (ENGR 01.102)	2	Sophomore Clinic 2 (ENGR 01.202)	4	Junior Clinic (ENGR 01.303)	2	Senior Clinic (ENGR 01.403)	2
<b>Calculus II (MATH 01.131)</b>	4	<b>Math for Engr Analysis (MATH 01.235)</b>	4	Heat Transfer for ME (ME 10.335)	3	Technical Elective II ( <i>see notes below</i> )	3
College Comp I (COMP 01.111)	3	Materials Science & Mfg. (ENGR 01.283)	3	Finite Element Analysis (ENGR 01.410)	3	<i>Rowan Core elective</i>	3
Introductory Mechanics I (PHYS 00.220)	4	Dynamics (ENGR 01.291)	2	Machine Design (ME 10.301)	4	Business Elective ( <i>see notes below</i> )	3
Intro to Mech. Design (ME10.101)	3	<b>Intro Thermal-Fluid Sciences (ME10.310)</b>	4	Principles & Apps. of ECE (ECE 09.205) OR Intro Numerical Analysis (MATH 01.332)	3	<i>Ethics Elective (see notes below)</i>	3
<b>Total Credits</b>						<b>120</b>	

### University Requirements

The *Rowan Core* is the University's general education model. It is based on six literacies and *Rowan Experience* (see below), which reflect contemporary priorities while maintaining a strong liberal arts foundation. Some literacies are incorporated in your major-specific courses. Others you will fulfill by taking elective courses in the required literacy.

#### Rowan Core-Literacies

*Artistic (ARTL)*  
*Global (GLBL)*  
*Humanistic (HUML)*  
*Communicative (COML)*  
*Quantitative (QNTL)*  
*Scientific (SCLL)*

#### Fulfilled by:

*elective*  
*elective*  
*elective*  
Comp I, SEC I and II  
Calculus I  
Chemistry I

#### Rowan Experience

Rowan Seminar (RS)  
Writing Intensive (WI)  
Broad-based lit. (LIT)

#### Fulfilled by:

First Year Engineering Clinic I  
Senior Engineering Clinic  
*Literature-designated elective*

#### Notes

##### *Ethics elective examples:*

PHIL 09150, 09323, 09341, 09346, 09392 or 09393; INTR 01148 or 01174

##### *Business elective examples:*

ECON 04101 or 04102; INTR 01138; BUS 01105; ENT 06240, 06346 or 06450; MIS 02526

### Technical Elective Requirements

Approved ENGR, ME, ECE, CHE, CEE, BME 400-level or other approved 400-level courses

ME courses approved as technical electives:

ME 10401 - ME 10482 (see Undergraduate Catalog for list of courses)