



*Henry M. Rowan College of Engineering
Rowan University, Glassboro, NJ*

Welcome to Mechanical Engineering

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Department Head & Professor, Mechanical Engineering



Rowan University

HENRY M. ROWAN
COLLEGE OF ENGINEERING

MECHANICAL ENGINEERING



***“Mechanical Engineering
at Rowan University is a
Selective and Rigorous
Program, Based on Minds-
on Hands-on Approach,
that Produces Great
Engineers”***

ASME Vision 2030 Action Agenda

Richer practice-based engineering experience for students

New balance of faculty research/practice skills in ME programs

Greater cultivation of Innovation and Creativity

Increased curricular flexibility

Development of students' professional skills to higher standards

Greater diversity among students and faculty

Rowan MechE Goals Are Consistent with ASME Vision 2030



FACTS & FIGURES

**CLASS SIZE LIMITED TO
40 STUDENTS**

Undergrad	Fall 2012	Fall 2018	Fall 2019
Enrollment	191	375	402
Faculty - FT	8	13	14
Faculty - 3/4 th	1	1	2
Student/Faculty	21.2*	26.8	25.1

**FEC/SEC taught by ME*

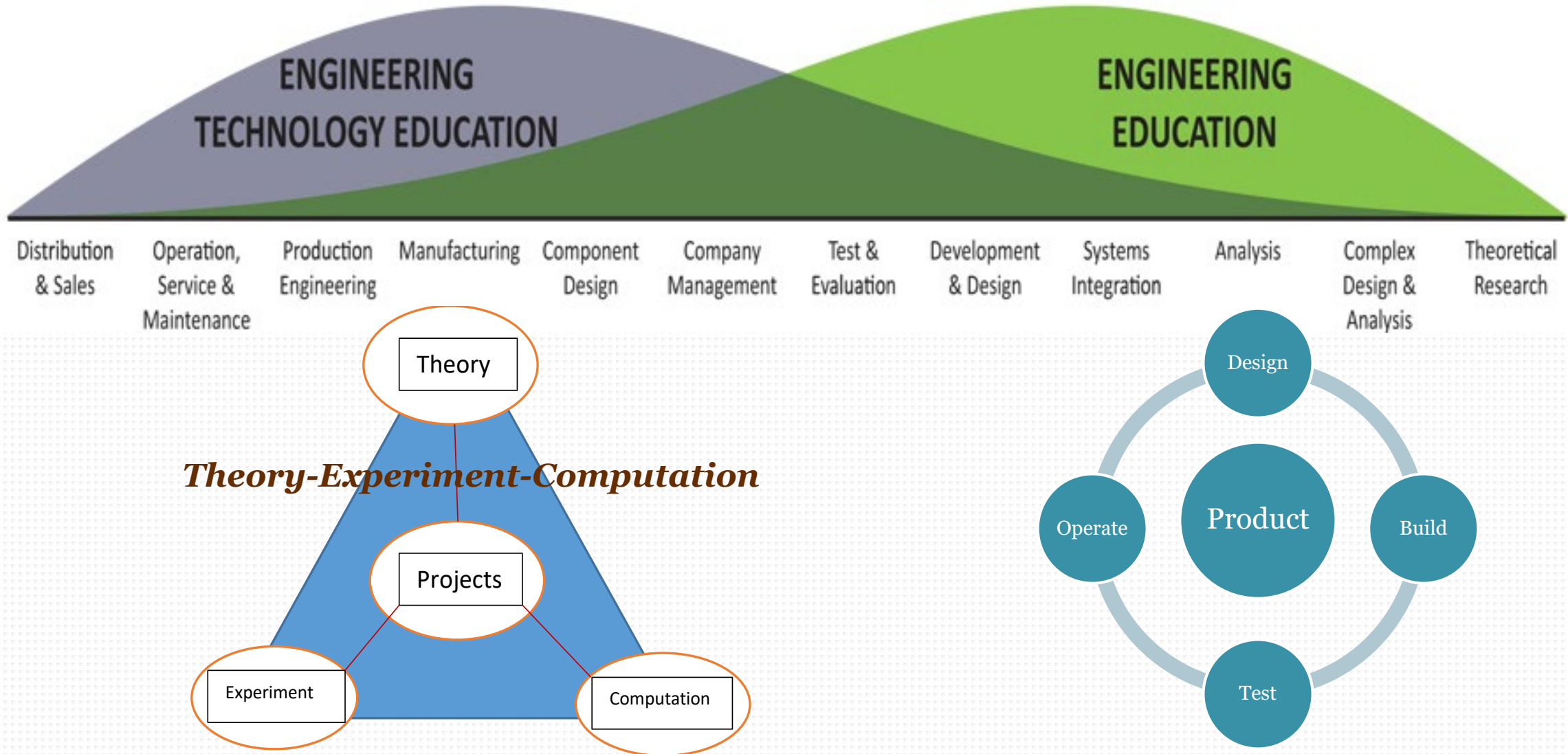
Incoming student average SAT	1340
Average GPA (weighted)	3.85
Graduate placement rate	97-100%
Average starting salary	\$69,000

Graduation rate (4 year rate)	85% - 86%
Retention rate	88% - 93%



An engineering technology—engineering continuum model

(Source: <http://www.nap.edu/23402>, National Academy of Engineering)





New 120 Cr Curriculum

Mechanical Engineering Curriculum Guide

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

First Year		Sophomore Year		Junior Year		Senior Year	
Fall Semester	16	Fall Semester	16	Fall Semester	14	Fall Semester	12
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
Calculus I (MATH 01.130)	4	Calculus III (MATH 01.230)	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
Intro Scientific Program: Matlab/CAD (CS 01.104)	3	Manufacturing & Measurement Tech (ME 10.210)	2	Intro Numerical Analysis (MATH 01.332) OR Principles & Apps. of ECE (ECE 09.205)	3	<i>Rowan Core elective</i>	3
<i>Rowan Core elective</i>	3	Statics (ENGR 01.271)	2	<i>Rowan Core elective</i>	3		
Spring Semester	16	Spring Semester	17	Spring Semester	15	Spring Semester	14
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
Calculus II (MATH 01.131)	4	Math for Engr Analysis (MATH 01.235)	4	Heat Transfer for ME (ME 10.335)	3	Technical Elective I (<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	Technical Elective II (<i>see notes below</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	Intro Thermal-Fluid Sciences (ME10.310)	4	Principles & Apps. of ECE (ECE 09.205) OR Intro Numerical Analysis (MATH 01.332)	3	<i>Ethics Elective (see notes below)</i>	3

Total Credits

120



Rowan Core Requirements

University Requirements

- Rowan Core is the University's general education model. It is based on six literacies and Rowan Experience, 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	Fulfilled by:	Ethics options:
Artistic (ARTL)	elective	PHIL 09150, 09323, 09341, 09346, 09392 or 09393; INTR 01148 or 01174
Global (GLBL)	elective	
Humanistic (HUML)	elective	
Communicative (COML)	Comp I, SEC I and II	
Quantitative (QNTL)	Calculus I	
Scientific (SCIL)	Chemistry I	
		Business elective options:
		ECON 04101 or 04102; INTR 01138; BUS 01105; ENT 06240, 06346 or 06450; MIS 02526
Rowan Experience	Fulfilled by:	
Rowan Seminar (RS)	Freshman Engineering Clinic I	
Writing Intensive (WI)	Senior Engineering Clinic	
Broad-based lit. (LIT)	Literature-designated elective	



Certificate, Concentration, and Minor Opportunities

Current CUGS/Concentration

Aerospace Engineering, Advanced Manufacturing, Automotive Engineering

Additional CUGS

Mechatronics, Multifunctional Materials, Thermal-Fluid System Design,(TBD)

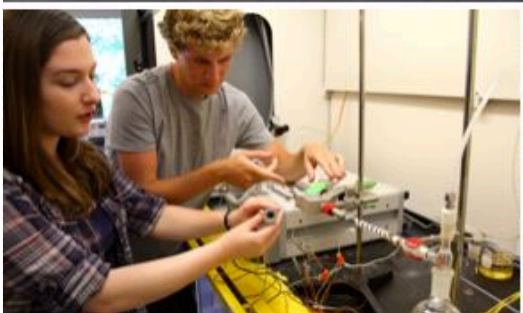
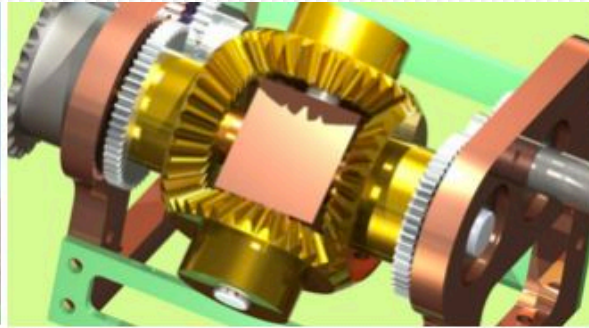
Minors

Bioengineering, Chemical Engineering, Civil & Environmental Engineering,
Electrical & Computer Engineering



Jr/Sr Clinics – Defining Feature of Rowan Engineering

- Multidisciplinary team projects
- Required all 4 semesters
- Teams of 2 – 20 students
- About 150 Jr/Sr Clinics currently





Largest Research Grant at Rowan

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Rowan designated R2 (High Research) University (Top 6% of US Colleges/Universities)

CoE: PhD/MS students – 150; Research Grants - \$13 million/year (last 3 yr average)



Contact Information

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