

This model is in effect for all students entering the program after 9/1/2008

Name: _____

PROGRAM GUIDE, BACHELOR OF SCIENCE, MECHANICAL ENGINEERING

- ◆ All students are required to take a minimum combined total of 42 semester hours of General Education and Rowan Experience courses. *(Italics indicate prerequisites)*

GENERAL EDUCATION REQUIREMENTS (choice from Approved Gen Ed Guide)				
Transfer	Rowan	Hegis #	COMMUNICATIONS BANK <i>minimum 6 s.h.</i>	6-7 S.H.
		COMP01.111 COMP01.105	College Composition I (3 s.h.) or Integrated College Composition I (4 s.h.)	3-4 s.h.
		ENGR 01.201	<i>Sophomore Clinic I</i>	<i>4 s.h.</i>
		Hegis #	SCIENCE/MATHEMATICS BANK <i>minimum 7 s.h.</i>	7 S.H.
			Math/Science (choice from Approved General Education Courses)	3
			Lab Science (choice from Approved General Education Courses)	4
		Hegis #	SOCIAL & BEHAVORAL SCIENCES BANK <i>minimum 6 s.h.</i>	6 S.H.
		Hegis #	HISTORY/HUMANITIES/LANGUAGE BANK <i>minimum 6 s.h.</i>	6 S.H.
		Hegis #	NON-PROGRAM COURSES <i>minimum 6 s.h.</i>	6 S.H.

ROWAN EXPERIENCE REQUIREMENTS (choose from Approved RE Guide)				
(Can be taken as a Gen Ed OR within the major requirements.)				
Transfer	Rowan	Hegis #		
		ENGR 01.202	<i>Sophomore Clinic II (Sophomore Clinic I)</i>	<i>4 s.h.</i>
			Artistic/Creative Experience	3 s.h.
CHECK TO BE SURE THE FOLLOWING REQUIREMENTS ARE COMPLETED				
			Broad Based Literature Course (LIT)	
			Writing Intensive Course (WI)	
			Multicultural/Global Course (M/G)	
			Lab Science Course (LAB)	
			Computer Competency Exam or Computer Literacy Course	
			Rowan Seminar (RS) – <i>Freshmen Only</i>	

- ◆ **NOTE:** *M/G, LIT, ACE, WI and RS courses, if taken within the major program of study, CAN NOT COUNT towards the minimum total of Gen Ed 42 credits.*
- ◆ This information has been provided by the department listed above as of the date listed below and is subject to change.
- ◆ To declare this major go to the CAP Center in Savitz Hall.
- ◆ *Students should consult with their program advisor for suggested General Education and Rowan Experience courses.*

Mechanical Engineering Required Courses

General Engineering			Mathematics and Science		
Freshman Clinic I	2	<input type="checkbox"/>	Calculus I	4	<input type="checkbox"/>
Freshman Clinic II	2	<input type="checkbox"/>	Calculus II	4	<input type="checkbox"/>
Sophomore Clinic I	1	<input type="checkbox"/>	Math for Eng I	4	<input type="checkbox"/>
Sophomore Clinic II	1	<input type="checkbox"/>	Math for Eng II	4	<input type="checkbox"/>
Junior Clinic I	2	<input type="checkbox"/>	Advanced College Chem	4	<input type="checkbox"/>
Junior Clinic II	2	<input type="checkbox"/>	Comp Sci & Prog	4	<input type="checkbox"/>
Senior Clinic I	2	<input type="checkbox"/>	Physics I	4	<input type="checkbox"/>
Senior Clinic II	2	<input type="checkbox"/>	Physics II	4	<input type="checkbox"/>
Statics	2	<input type="checkbox"/>	Math/Sci Elective	3	<input type="checkbox"/>
Dynamics	2	<input type="checkbox"/>	<i>Total</i>	<i>35</i>	
Materials Science	2	<input type="checkbox"/>	Social and Behavioral Sciences		
Manufacturing	2	<input type="checkbox"/>	Microeconomics	3	<input type="checkbox"/>
Solid Mechanics	2	<input type="checkbox"/>	Other SBS Course	3	<input type="checkbox"/>
<i>Total</i>	<i>24</i>		<i>Total</i>	<i>6</i>	
Other Engineering			History, Humanities and Languages		
Networks I	2	<input type="checkbox"/>	HHL Course	3	<input type="checkbox"/>
Electronics I	2	<input type="checkbox"/>	HHL Course	3	<input type="checkbox"/>
Technical Elective	3	<input type="checkbox"/>	<i>Total</i>	<i>6</i>	
<i>Total</i>	<i>7</i>		Art		
Mechanical Engineering			Art Course	3	<input type="checkbox"/>
Machine Design	2	<input type="checkbox"/>	<i>Total</i>	<i>3</i>	
Vibrations	2	<input type="checkbox"/>	Communication		
Emerging Topics	2	<input type="checkbox"/>	Composition I	3	<input type="checkbox"/>
Heat Transfer	2	<input type="checkbox"/>	Sophomore Clinic I	3	<input type="checkbox"/>
Quality and Reliability	3	<input type="checkbox"/>	Sophomore Clinic II	3	<input type="checkbox"/>
System Dynamics	3	<input type="checkbox"/>	<i>Total</i>	<i>9</i>	
ME Elective	3	<input type="checkbox"/>	Other Rowan Requirements		
ME Elective	3	<input type="checkbox"/>	WI	satisfied by Senior Clinic II	<input type="checkbox"/>
ME Elective	3	<input type="checkbox"/>	RS	satisfied by Freshman Clinic I	<input type="checkbox"/>
ME Elective	3	<input type="checkbox"/>	M/G	must be satisfied by HHL/SBS/Art	<input type="checkbox"/>
Thermodynamics	4	<input type="checkbox"/>	LIT	must be satisfied by HHL/SBS/Art	<input type="checkbox"/>
Mechanical Design	4	<input type="checkbox"/>	TOTAL SEMESTER HOURS		
Fluid Mechanics	4	<input type="checkbox"/>	128 S.H.		
<i>Total</i>	<i>38</i>				

Mechanical Engineering Sequence Courses By Year

Fall Semester		Spring Semester	
Freshman Year			
Composition I	ENGL 01.111	Computer Sci & Programming	CS 04.103
Freshman Clinic I	ENGR 01.101	Freshman Clinic II	ENGR 01.102
Calculus I	MATH 01.130	Calculus II	MATH 01.131
Adv. College Chemistry	CHEM 06.105	Physics I	PHYS 02.200
General Education Elective		General Education Elective	
Sophomore Year			
Sophomore Clinic I	ENGR 01.201	Sophomore Clinic II	ENGR 01.202
Math for Engr Analysis I	MATH 01.235	Math for Engr Analysis II	MATH 01.236
Statics	ENGR 01.271	Solid Mechanics	ENGR 01.272
Dynamics	ENGR 01.291	Materials Science	ENGR 01.281
Physics II	PHYS 02.201	Manufacturing Processes	ENGR 01.282
		Machine Design	ME 10.241
Junior Year			
Junior Clinic I	ENGR 01.301	Junior Clinic II	ENGR 01.302
Thermodynamics I	ME 10.311	Microeconomics	ECON 04.102
Thermodynamics II	ME 10.312	Fluid Mechanics I	ENGR 01.341
Mechanical Design	ME 10.341	Fluid Mechanics II	ME 10.313
Quality and Reliability	ME 10.342	Vibrations	ME 10.201
Networks I	ECE 09.201	Heat Transfer	ChE 06.311
		Electronics I	ECE 09.311
Senior Year			
Senior Engineering Clinic I	ENGR 01.401	Senior Engineering Clinic II	ENGR 01.401
System Dyns and Controls	ME 10.343	Emerging Topics in ME	ME 10.403
Major Elective I		Major Elective III	
Major Elective II		Major Elective IV	
Math/Science Elective		Technical Elective	
General Education Elective		General Education Elective	