Grove City College Status Sheet

Status Sheets are provided as a convenience for the student and may be helpful for recording completed courses. However, the College Bulletin is the controlling authority on all requirements. Questions should be directed to your academic advisor or the Registrar.

(WI)=Writing Intensive, (SI)=Speaking Intensive, (IL)=Information Literacy courses.

B.S. in Mechanical Engineering Entering in 2024

(REVISED 04-18-2024)

Name: _____

ID# _____ **Date:** _____

Year of Anticipated Graduation: _____ **Advisor:** _____

TOTAL HOURS REQUIRED FOR THIS DEGREE---------- 128 HOURS

General Education + Elective Requirements---------- 31 HOURS

Minimum CQPA and MQPA required for graduation----------2.00

MQPA Courses----------MECE; ROBO; ENGR (excluding 480)

Major Requirements----------97 HOURS

GENERAL EDUCATION REQUIREMENTS---------- 24 HOURS

HUMANITIES CORE---------- 15 HOURS

		Cr.	Sem. Taken	Grade
HUMA 102	Civ and the Biblical Revelation (IL)*	3		
HUMA 200	Western Civilization	3		
HUMA 202	Civilization and Literature	3		
HUMA 301	Civilization and the Arts	3		
HUMA 303	Christianity and Civilization	3		

*The year-long sequence of RELI 211 and 212 may substitute for this course.

WRITING REQUIREMENT---------- 3 HOURS

WRIT 101	Found. of Academic Discourse (WI/IL)	3		

STUDIES IN SCIENCE, FAITH, & TECHNOLOGY (SSFT)---------- 2 HOURS

Choose one course from the following:

COMP 205/SSFT 205 Ethics, Faith, and the Conscious Mind
PHIL 243 Science and the Human: Inquiry, Design, & the Person
SSFT 210 Science & Religion
SSFT 212 Science, Faith, Technology, & Origins

2 _____ _____

FOUNDATIONS OF THE SOCIAL SCIENCES---------- 3 HOURS

Choose one course from the following:

ECON 120	Foundations of Economics	PSYC 101	Foundations of Psychology
HIST 120	Foundations of History	PSYC 200	Cross-Cultural Psychology
HIST 141	World Geography	SOCI 101	Foundations of Sociology
HIST 204	Hist/Phil Foundations of Education	SOCI 103	Found. of Cultural Anthr.
POLS 101	Foundations of Political Science	SOCW 101	Found. of Social Work

3 _____ _____

QUANTITATIVE/LOGICAL REASONING---------- 0 HOURS

Satisfied by major-related requirements.

NATURAL SCIENCES (with labs)---------- 0 HOURS

Satisfied by major-related requirements.

PHYSICAL EDUCATION---------- 1 HOURS

PHYE 100	Healthful Living	1		

GENERAL ELECTIVES---------- 7 HOURS

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MAJOR-RELATED REQUIREMENTS---------- 36 HOURS

CHEM 105	Chemistry for Engineers	4		
OR				
CHEM 111	General Chemistry I	3		
CHEM 113	General Chemistry I Lab	1		
ENGR 156	Introduction to Engineering	2		
ENGR 216	Mechatronics I	3		
ENGR 274	Math Methods in Engineering	3		
ENGR 402	Engineering Economy	1		
MATH 161	Calculus I	4		
MATH 162	Calculus II	4		
MATH 261	Calculus III	4		
MATH 262	Differential Equations	3		
PHYS 101	General Physics I	4		
PHYS 102	General Physics II	4		

MECHANICAL ENGINEERING REQUIREMENTS---------- 48 HOURS

		Cr.	Sem. Taken	Grade
MECE 107	Engineering Graphics	2		
MECE 109	Intro to Solid Modeling	2		
ENGR 120	Numerical Computing for Engineers	3		
MECE 201	Fundamentals of Material Science	3		
MECE 210	Design for Manufacturing	3		
MECE 211	Mechanics I	3		
MECE 212	Mechanics II	3		
MECE 214	Thermodynamics	3		
MECE 251	Mechanical Systems Lab I (IL)	1		
MECE 252	Mechanical Systems Lab II	1		
MECE 311	Mechanics of Materials	3		
MECE 312	Stress Analysis/Design of Mach. Comp.	3		
MECE 316	System Dynamics	3		
MECE 325	Fluid Mechanics	3		
MECE 326	Heat Transfer	3		
MECE 351	Instrumentation Lab (WI)	1		
MECE 352	Thermal / Fluids Lab	1		
ENGR 401	Capstone Design (WI/SI)	3		
ENGR 451	Capstone Design Laboratory I (SI)	1		
ENGR 452	Capstone Design Laboratory II (SI)	3		

MECHANICAL ENGINEERING ELECTIVES: ---------- 13 HOURS

Select a minimum of 3 credit hours from each systems area. At least 6 credit hours must be 400-level courses with a maximum of 4 hours from one and two credit courses.

MECHANICAL SYSTEMS ELECTIVES:

MECE 260/360/460**	Independent Study	1-3		
MECE 270/370/470**	Independent Research	1-3		
MECE 303	Computer-Aided Manufacturing	3		
MECE 390	Special Mechanical Engineering Topics	1-4		
MECE 408	Mechanical Vibrations	3		
MECE 410	Kinematics & Dynamics of Mach.	3		
MECE 415	Finite Element Analysis	3		
MECE 418	Human-Powered Vehicle Design	3		
MECE 428	Biomechanics	3		
MECE 498	Honors in Mechanical Engineering	1-3		
ENGR 411	Control Systems	3		
ROBO 301	Industrial Robotics	3		
ROBO 302	Mobile Robots	3		

THERMAL SYSTEMS ELECTIVES:

MECE 260/360/460**	Independent Study	1-3		
MECE 270/370/470**	Independent Research	1-3		
MECE 321	Advanced Thermodynamics	3		
MECE 391	Special Mechanical Engineering Topics	1-4		
MECE 414	Princicples of HVAC	3		
MECE 416	Survey of Renewable Energy Systems	3		
MECE 419	Propulsion and Power	3		
MECE 421	Applied Fluid Mechanics	3		
MECE 499	Honors in Mechanical Engineering	1-3		

TECHNICAL ELECTIVES:

MECE 260/360/460**	Independent Study	1-3		
MECE 270/370/470**	Independent Research	1-3		
ENGR 209	Solidworks: Modeling & Simulation	2		
ENGR 217	Mechatronics II	3		
ENGR 301	Ethics in Engineering and Robotics	1		
ENGR 304	Design of Experiments	1		
ENGR 305	Introduction to LabVIEW	1		
ENGR 331	Engr. Mgt. & Cross-Cultural Comm	3		
ENGR 390	Special Engineering Topics	3		
ENGR 412	Modern Control Theory	3		

** A combined total of up to three credit hours for independent study, independent research, faculty-mentored research, and honors courses can be applied towards the Engineering Electives requirement.

SAMPLE FOUR-YEAR PLAN for the BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

Freshman Year

Fall	Credits	Spring	Credits
MATH 161 Calculus I	4	ENGR 156 Intro to Engineering	2
MECE 107 Engineering Graphics	2	MATH 162 Calculus II	4
MECE 109 Intro to Solid Modeling	2	ENGR 120 Numerical Computing for Engineers	3
HUMA 102 Civ and the Biblical Revelation	3	PHYS 102 General Physics II	4
PHYS 101 General Physics I	4	WRIT 101 Foundations of Academic Discourse	3
PHYE 100 Healthful Living	1		16
	16		

Sophomore Year

Fall	Credits	Spring	Credits
CHEM 105 Chemistry for Engineers	4	MATH 262 Differential Equations	3
MATH 261 Calculus III	4	MECE 210 Design for Manufacturing	3
MECE 201 Fundamentals of Material Science	3	MECE 212 Mechanics II	3
MECE 211 Mechanics I	3	MECE 214 Thermodynamics	3
MECE 251 Mechanical Systems Lab I	1	MECE 252 Mechanical Systems Lab II	1
SSFT course*	2	HUMA 200* Western Civilization	3
	17		16

Junior Year

Fall	Credits	Spring	Credits
MECE 311 Mechanics of Materials	3	MECE 312 Stress Analysis/Design of Mach. Comp	3
MECE 325 Fluid Mechanics	3	MECE 316 System Dynamics	3
MECE 351 Instrumentation Lab	1	MECE 326 Heat Transfer	3
General Elective	3	MECE 352 Thermal / Fluids Lab	1
ENGR 274 Math Methods in Engineering	3	ENGR 216 Mechatronics I	3
HUMA 202* Civilization and Literature	3	Foundations of Social Science course*	3
	16		16

Senior Year

Fall	Credits	Spring	Credits
ENGR 401 Capstone Design	3	ENGR 452 Capstone Design Project II	3
ENGR 451 Capstone Design Project I	1	Mechanical Engineering Electives*	4
Mechanical Engineering Electives*	9	ENGR 402 Engineering Economy	1
HUMA 301* Civilization and the Arts	3	HUMA 303* Christianity and Civilization	3
	16	General Elective*	4
			15

*Marked courses are not restricted to the time slots as shown in this suggested schedule.

NOTE: Scheduling time conflicts may occur for students who deviate from the above plan. Any exception to the classes listed on the other side of the page must have prior written approval of the department chairman.

TOTAL CREDIT HOURS REQUIRED = 128