

5-year Physics ME/Materials Science Engineering Degree at Loyola University Maryland

Version 7/14/21 with new core requirements.

First Year First Semester		First Year Second Semester	
	cr.		cr.
MA 251 Calculus I	4	MA 252 Calculus II	4
EG 140 Programming/CS 151 Python	3	PH 202 General Physics II	4
PH 201 General Physics I	4	PH 292 Gen. Physics Lab II	1
PH 291 Gen. Physics Lab I	1	TH 201 Intro to Theology	3
WR 100 Effective Writing	3	PL 201- Foundations of Philosophy	3
Language Core	3	HS 100-Level Core Course	3
Total cr.	18		18

Second Year First Semester		Second Year Second Semester	
	cr.		cr.
MA 351 Calculus III	4	MA 304 Ord. Differential Equations	3
EG 031 Linear Circuit Analysis Lab	1	EG 051 Materials Science Lab	1
EG 331 Linear Circuit Analysis	3	EG 302 Dynamics	3
EG 301 Statics	3	EG 351 Intro. to Engineering Materials	3
PH 312 Modern Physics	3	PH 316 Classical Mech	3
PH 307 Math Methods in Physics	3	PH 294 Intermediate Lab II	1
PH 293 Intermediate Lab I	1	EN 101 Understanding Literature	3
Total cr.	18		17

Third Year First Semester		Third Year Second Semester	
	cr.		cr.
EG 390 Experimental Methods	2	EG 441 Engineering Systems Analysis	3
EG 320 Solid Mechanics Lab	2	EG 426 CAD	3
EG 420 Solid Mechanics	3	Mechanical Engineering Concentration	3
EG 381 Probability & Statistics	3	PH 317 Thermal / EG 380 Thermodyna	3
Mechanical Engineering Concentration	3	PL 2xx Core/Th 2xx Core	3
PH 415 Quantum Mechanics I	3	Elective	3
Total cr.	16		18

Fourth Year First Semester		Fourth Year Second Semester	
	cr.		cr.
Mechanical Engineering Concentration	3	Engineering Elective	3
CH 101 Intro Chem	3	Mechanical Engineering Concentration	3
CH 105 Intro Chem Laboratory	1	Elective	3
PH 417 Electricity & Magnetism	3	EN 2xx English Core/HS 3xx History Core	3
Elective	3	PH 398 Experimental Methods II (LabView)	2
Total cr.	13		14

Fifth Year First Semester		Fifth Year Second Semester	
	cr.		cr.
EG 497 Engineering Design Project I	3	EG 498 Engineering Design Project II	3
PH/EG 491 I&E	3	Elective	3
Fine Arts Core	3	Ethics Core	3
Social Science Core	3	Social Science Core	3
Total cr.	12		12

Total Credit Count = 156