

Curriculum Map – Physics Area (Engineering Physics (Electrical) Track)

Effective Fall 2020

NOTE: If you are required to complete any developmental courses, you may not be able to complete the degree in four years. This curriculum map assumes that you have not transferred in any previously completed college level courses.

All students must have 36 hours of general education courses which include:

FYS – First Year Seminar	ENG 100 – Core Writing I
COMS 108 – Fund. Of Speech Communication	ENG 200 – Core Writing II
MATH 131, 135, 152, 174 or 175 - CORE Math	Capstone

One 3 credit hour course from each of the following categories

HUM I	SBS I	NSC I
HUM II	SBS II	NSC II

The approved course list may be accessed through the current MSU Undergraduate Catalog.

FIRST YEAR COURSE SCHEDULE									
✓	Fall Semester	Code	Credits		✓	Spring Semester	Code	Credits	
	CHEM 111/111L Principles of Chemistry I & Lab	R	4			CHEM 112/112L Principles of Chemistry II & Lab	R	4	
	MATH 175 Calculus I	G/R	4			ENG 100 Writing I	G	3	
	EEC 241 Circuit Analysis	R	3			EEC 242 Principles of Electronic Communications	R	3	
	PHYS 105 Introduction to Physics & Engineering Professions	R	1			PHYS 181 Introduction to Scientific Computing	R	3	
	FYS 101 First Year Seminar	G	3			MATH 275 Calculus II	R	4	
Total Credit Hours				15	Total Credit Hours				17

SECOND YEAR COURSE SCHEDULE									
✓	Fall Semester	Code	Credits		✓	Spring Semester	Code	Credits	
	MATH 276 Calculus III	R	4			MATH 363 Differential Equations	R/U	3	
	PHYS 231/231L Engineering Physics I & Lab	R	5			PHYS 232/232L Engineering Physics II & Lab	R	5	
	ENG 200 Writing II	G	3			COMS 108 Fundamentals of Speech	G	3	
	NSC I Natural Sciences - Elective	G	3			EEC 342 Electronic Devices and Circuits	R/U	3	
Total Credit Hours				15	Total Credit Hours				14

THIRD YEAR COURSE SCHEDULE									
✓	Fall Semester	Code	Credits		✓	Spring Semester	Code	Credits	
	PHYS 353 Concepts of Modern Physics I	R/U	4			PHYS 354 Concepts of Modern Physics II	R/U	3	
	PHYS 340 Experimental Physics	R/U	3			PHYS 361 Fundamentals of Electronics	R/U	3	
	SBS I Social/Behavioral Sciences - Elective	G	3			HUM I Humanities - Elective	G	3	
	PHYS 481 Mathematics for Scientists & Engineers	R/U	3			PHYS 381 Computer Solutions to Engineering and Science Problems	R/U	3	
	PHYS 211 Circuits	R	3			PHYS 411 Thermodynamics	R/U	3	
Total Credit Hours				16	Total Credit Hours				15

FOURTH YEAR COURSE SCHEDULE									
✓	Fall Semester	Code	Credits		✓	Spring Semester	Code	Credits	
	PHYS 499C Capstone & Senior Thesis I	G/U	2			PHYS 499D Capstone & Senior Thesis II	G/U	1	
	SBS II Social/Behavioral Sciences - Elective	G	3			HUM II Humanities - Elective	G	3	
	MATH 353 Introduction to Statistics	R/U	3			PHYS 332 Electricity and Magnetism	R/U	4	
	NSC II Natural Sciences - Elective	G	3			EMM 203 Computer Aided Design I	R	3	
	Free Elective	E/U	3			PHYS 412 Light and Physical Optics	R/U	3	
Total Credit Hours				14	Total Credit Hours				14

(E) Elective (G) General Education Course (P) Pre-requisite (R) Required Course
 (U) Upper Division Course 300-400 level (you must have 42 hours)