

Curriculum Map – Physics Major (Applied 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
	ENG 100 Writing I	G	3			MATH 175 Calculus I	G/R	4
	PHYS 105 Introduction to Physics & Engineering Professions	R	1			PHYS 181 Introduction to Scientific Computing	R	3
	COMS 108 Fundamentals of Speech	G	3			ENG 200 Writing II	G	3
	FYS 101 First Year Seminar	G	3			SBS I Social/Behavioral Sciences - Elective	G	3
Total Credit Hours					Total Credit Hours			
14					17			

SECOND YEAR COURSE SCHEDULE

✓	Fall Semester	Code	Credits		✓	Spring Semester	Code	Credits
	PHYS 231/231L Engineering Physics I & Lab	R	5			PHYS 232/232L Engineering Physics II & Lab	R	5
	MATH 275 Calculus II	R	4			MATH 276 Calculus III	R	4
	HUM I Humanities - Elective	G	3			HUM II Humanities - Elective	G	3
	NSC I Natural Sciences - Elective	G	3			NSC II Natural Sciences - Elective	G	3
Total Credit Hours					Total Credit Hours			
15					15			

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
	MATH 363 Differential Equations	R/U	3			PHYS 350 Nuclear Science	R/U	4
	Minor Elective	R	3			Minor Elective	R	3
	Minor Elective	R	3			Minor Elective	R/U	3
Total Credit Hours					Total Credit Hours			
16					16			

FOURTH YEAR COURSE SCHEDULE

✓	Fall Semester	Code	Credits		✓	Spring Semester	Code	Credits
	PHYS 499C Capstone & Senior Thesis I	R/U	2			PHYS 499D Capstone & Senior Thesis II	R/U	1
	UTCH 400 Research Methods	R/U	3			PHYS 412 Light and Physical Optics	R/U	3
	SBS 2 Social/Behavioral Sciences - Elective	G	3			PHYS 411 Thermodynamics	R/U	3
	Minor Elective	R/U	3			Minor Elective	R/U	3
	Minor Elective	R/U	3			Free Elective	E	3
Total Credit Hours					Total Credit Hours			
14					13			

(E) Elective

(G) General Education Course

(P) Pre-requisite

(R) Required Course

(U) Upper Division Course 300-400 level (you must have 42 hours)