

# 2022-23 ACADEMIC MAP

## BS - Mathematics -Pre Engineering

TOTAL HRS: 120



Academic map is a guide to help students stay on track to degree completion. Consult undergraduate catalog and academic advisor for other requirements.

\* minimum grade required

FALL SEMESTER						SPRING SEMESTER					
PREFIX	COURSE	CREDIT	AREA	GR*	SEM/GR	PREFIX	COURSE	CREDIT	AREA	GR*	SEM/GR
YEAR 1-Freshman	ENG 101	Composition I	3	Gen Ed		ENG 102	Composition II	3	Gen Ed		
	MAT 251	Calculus I	3	Gen Ed	C	MAT 252	Calculus II	3	Major	C	
	CHE 101/103	Gen Chem I and Lab	4	Gen Ed	C	CHE 102/104	Gen Chem II and Lab	4	Gen Ed	C	
	CIS 205	Microcomputer Apps	3	Gen Ed		MAT 210	Computer Prog Fund	3	Major	C	
		General Elective	1	Electives			Lab Science	3	Electives		
	FYS 100/300 <sup>1</sup>	First Year Seminar	1	Univ Req			Fine Arts	3	Gen Ed		
			15					19			
YEAR 2-Sophomore	ENG 200 Level	Literature	3	Gen Ed		MAT 254	Calculus IV	3	Major	C	
	MAT 253	Calculus III	3	Major	C	MAT 305	Foundations of Math	3	Major	C	
	MAT 300	Statistics	3	Major	C		Humanities & Fine Arts	3	Gen Ed		
	COM 101/202	Communication Studies	3	Gen Ed			General Elective	3	Electives		
		General Elective	4	Electives			General Electives	3	Electives		
			16					15			
YEAR 3-Junior	MAT 442	Linear Algebra	3	Major	C	MAT 322	Differential Equations	3	Major	C	
	PHY 231	General Physics I	3	Spec Dgr	C	PHY 232	General Physics II	3	Spec Dgr	C	
	PHY 235	General Physics Lab I	1	Spec Dgr	C	PHY 236	General Physics Lab II	1	Spec Dgr	C	
		Foreign Language	3	Spec Dgr			Perspectives on Society	3	Gen Ed		
		General Elective	4	Electives			Foreign Language	3	Spec Dgr		
			14			General Elective	1	Electives			
								14			
YEAR 4-Senior	MAT 300+ Level	Math Electives	6	Major	C	MAT 490	Senior Seminar in Math	1	Major	C	
	HIS 100/200	History	3	Gen Ed		MAT 425	Modern Algebra	3	Major	C	
		Perspectives on Society	3	Gen Ed		MAT 300+ Level	Math Elective	3	Major	C	
	PHY 371	Thermodynamics	4	Electives	C		General Electives	8	Electives		
			16					15			

- <sup>1</sup>All incoming students required to enroll in FYS 100 (freshmen), FYS 103 (honors), or FYS 300 (transfers).
- Electrical Engineering - General Electives: CHE 372.
- Chemical/Petroleum Engineering - General Electives: CHE 319, 320, 321, 322, and 432.
- Environmental Engineering - General Electives: Choose from GIS 200, 202, 241, 251, 391; and BIO 100, 101, 123, 301, 309, 416.
- Biomedical Engineering - General Electives: Choose from BIO 100, 101, 300, 319, 328, 349, 350, 442; and CHE 319, 320, 321, 322, 440, 441, 443.
- At least 2.5 GPA in upper-level mathematics courses.
- At least 2.5 GPA in upper-level mathematics courses completed at DSU.