

CE 2023-24 Catalog (v2 starts F'24)

Civil Engineering

Math Level 5: M-171Q Start

128 total credits required to graduate (42 of those 128 must be 300 level and above)

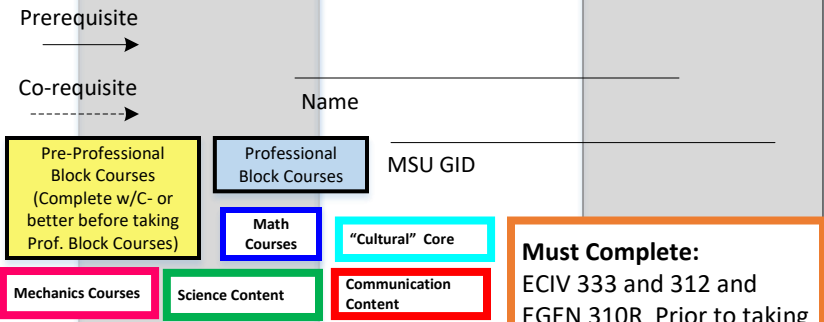
2nd Writing: (Choose one) **BMGT 205, WRIT 201, WRIT 221, or HONR 202**

Choose one course from each of the following **CORE 2.0** topics:
 A = IA/RA (Inquiry Arts/Research Arts)
 H = IH (Inquiry Humanities)
 S = IS (Inquiry Social Sciences)
 D = D (Diversity)

Engineering Science Elective: (Choose one)
DDSN 166 (F,S) Revit I (3) (Pre-req: DDSN131)
DDSN 245 (F,S) Civil Drafting (3) (Pre-req: DDSN131)
EMAT 251 (F,S) Matrl Struc & Prop (3) (Pre-req: CHMY 141, Co-Req: M 171)
ELEE 250 (F,S) Circuits (4)
EGEN 324 (F,S) Applied Thermodynamics (3) (Pre-req: PHSX 220, Co-Req: M 172)

Basic Science Elective: (Choose one)
BIOB 160 (F,S) Princ Liv Sys (4) Pre-Req CHMY 141
ENSC 245 (F) Soils (3)
ERTH 101 (F,S) Earth System Sci (4)
GPHY 284 (F,S) Intro to GIS Science & Cartography (3)
BIOM 103IN (F,S) Unseen Universe: Microbes (3)

2023-24
For planning purposes: The MSU catalog displays official degree and prerequisite requirements. Some courses from prior catalogs have been discontinued or replaced. It is recommended that students on older catalogs follow this flowchart to complete their degree requirements.



Must Complete:
 ECIV 333 and 312 and EGEN 310R **Prior to taking ECIV 499R (CE Design)**

PROFESSIONAL ELECTIVE COURSES – SEE BACK OF FLOWCHART

2021-2023 Civil Engineering Professional Electives (Total of 15 cr-hrs required)

Updated 2/24

	Rubric	Number	Cr Hrs	Title	Offered	Prerequisite	
Design Courses	ECIV	414	3	Steel Design	F odd	ECIV 315 Structures II	
	ECIV	415	3	Design of Masonry Structures	S even	ECIV 315 Structures II	
	ECIV	416	3	Design of Wood and Timber Structures	S odd	ECIV 315 Structures II	
	ECIV	484	3	Reinforced Concrete Design	F even	ECIV 315 Structures II	
	ECIV	420	3	Earth and Foundation Engineering	S	ECIV 320 Geotechnical Engineering	
	ECIV	425	3	Geotechnical Structures	F	ECIV 320 Geotechnical Engineering	
	ECIV	431	3	Open Channel Hydraulics	F	ECIV 333 Water Resources Engineering	
	ECIV	435	3	Closed Conduit Hydraulics	S	ECIV 333 Water Resources Engineering	
	ECIV	452	3	Traffic Engineering and ITS	F odd	ECIV 350 Transportation Engineering	
	At least two	ECIV	454	3	Transportation Planning	S odd	ECIV 350, EGEN 350 or STAT 332
		ECIV	456	3	Highway Geometric Design	F	ECIV 350 Transportation Engineering
		ECIV	457	3	MDT Highway Design	F	Consent of Instructor
		ECIV	464	3	Lightweight Concrete Engineering	F,S	Consent of Instructor
		EENV	432	3	Advanced Engineering Hydrology	S	ECIV 333 Water Resources Engineering
		EENV	434	3	Groundwater Supply and Remediation	S	ECIV 337 CE Fluid Mechanics
		EENV	441	3	Natural Treatment Systems	S	EENV 340 Introduction to Environmental Engineering
		EENV	436	3	Storm Water Management & Eng	F	EENV 340 Introduction to Environmental Engineering
		EENV	443	3	Air Pollution Control	F	ECIV 337 and CHMY 141
		EENV	445	3	Hazardous Waste Treatment	F	EENV 340 Introduction to Environmental Engineering
		SRVY	474	3	Project Design in Surveying	S odd	SRVY 230 Surveying
	ECIV	307	3	Constr Estimating and Bidding	F,S	ECIV 202, ECIV 308	
	ECIV	311	2	Construction Project Documentation	F,S	ECIV 308 Construction Practice	
	ECIV	404	3	Heavy Const Equip and Methods	F,S	ETCC 302 or ECIV 320	
	ECIV	405	3	Const Proj Planning Scheduling	F,S	ECIV 308 Construction Practice	
	ECIV	406	3	Sustainability in Construction	S	ECIV 308 Construction Practice	
	EGEN	415	3	Advanced Mechanics of Solids	F	EGEN 205 Mechanics of Materials	
	EGEN	420	3	Ice & Snow Mechanics	S	EGEN 205 Mechanics of Materials	
	SRVY	355	3	Surveying Calculations	S even	SRVY 230 Surveying	
	SRVY	361	3	Intro to Legal Principles in Surveying	F even	SRVY 230 Surveying	
	SRVY	362	3	Public Land Survey Systems	F odd	SRVY 230 Surveying	
	SRVY	375	3	Analyt Photo/Remote Sensing	F odd	M 171 Calculus	
	DDSN	166*	3	Revit I	F,S	DDSN 131 Intro to Drafting and Design	
	DDSN	245*	3	Civil Drafting	F,S	DDSN 131 Intro to Drafting and Design	
	ECIV	490	1-4	Undergraduate Research	F,S,Su	Consent of Instructor	
	ECIV	492	1-4	Independent Study	F,S,Su	Consent of Instructor	
Max 3 cr	ECIV	498	3	Career Internship (3 cr max)	Su	Consent of Instructor	
				A petitioned course.			
				A course from a completed minor.			
				A course from a prior/concurrent BS/BA degree.			
				A course from a completed Honors program.			

*Cannot double count as Professional Electives and Engineering Science Electives