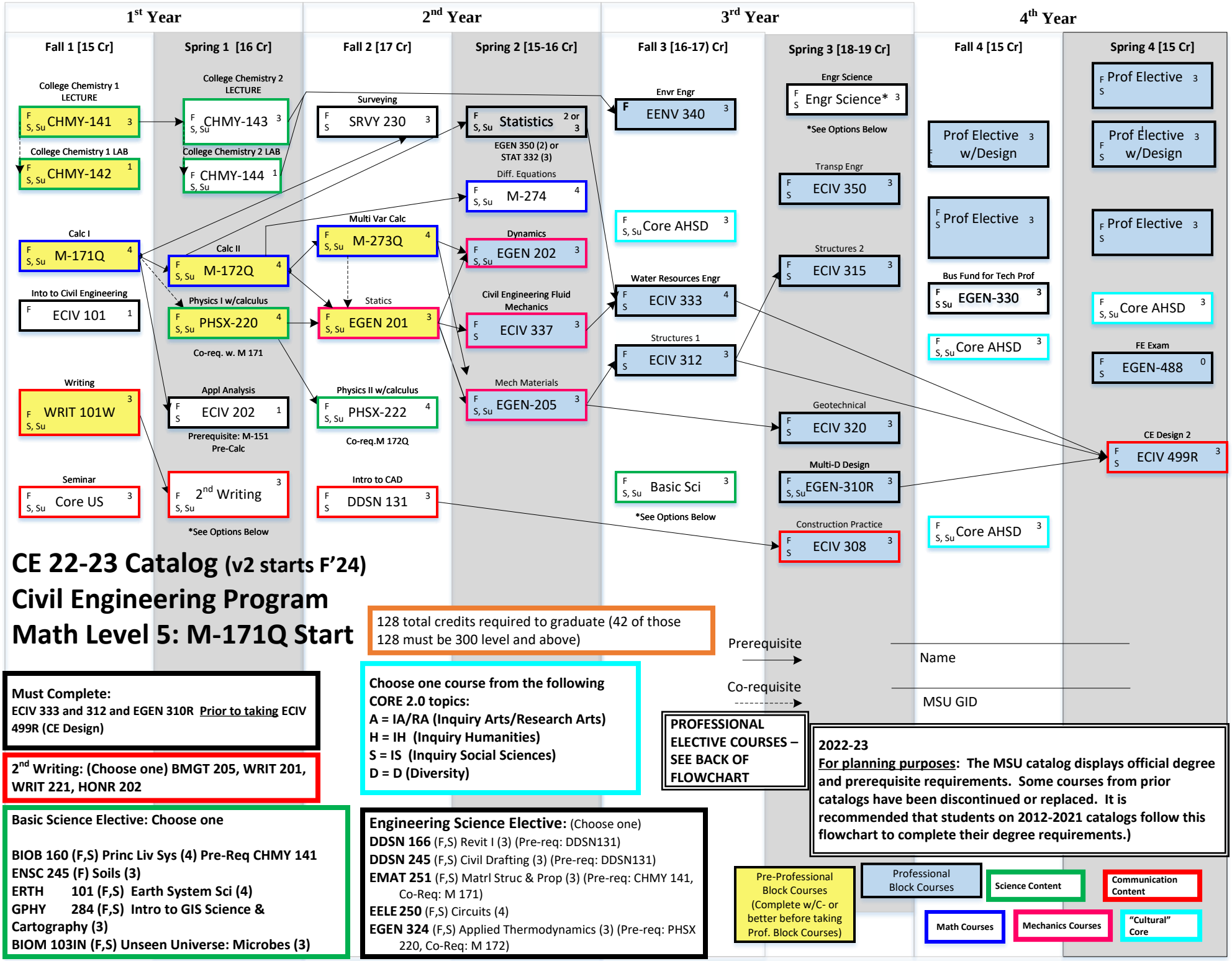
1st Year
2nd Year
3rd Year
4th Year
Fall 1 [15 Cr]
Spring 1 [16 Cr]
Fall 2 [17 Cr]
Spring 2 [15-16 Cr]
Fall 3 [16-17) Cr]
Spring 3 [18-19 Cr]
Fall 4 [15 Cr]
Spring 4 [15 Cr]
College Chemistry 1 LECTURE
F S, Su CHMY-141 3
College Chemistry 1 LAB
F S, Su CHMY-142 1
College Chemistry 2 LECTURE
F S, Su CHMY-143 3
College Chemistry 2 LAB
F S, Su CHMY-144 1
Surveying
F S SRVY 230 3
Envr Engr
F EENV 340 3
Engr Science
F S Engr Science* 3
*See Options Below
Prof Elective 3
Prof Elective w/Design 3
Calc I
F S, Su M-171Q 4
Calc II
F S, Su M-172Q 4
Multi Var Calc
F S, Su M-273Q 4
Diff. Equations
F S, Su M-274 4
F S, Su Core AHSD 3
Transp Engr
F S ECIV 350 3
Prof Elective 3
Prof Elective w/Design 3
Into to Civil Engineering
F ECIV 101 1
Physics I w/calculus
F S, Su PHSX-220 4
Co-req. w. M 171
Statics
F S, Su EGEN 201 3
F S, Su Statistics 2 or 3
EGEN 350 (2) or STAT 332 (3)
Dynamics
F S, Su EGEN 202 3
Civil Engineering Fluid Mechanics
F S ECIV 337 3
Mech Materials
F S, Su EGEN-205 3
Water Resources Engr
F S ECIV 333 4
Structures 1
F S ECIV 312 3
Structures 2
F S ECIV 315 3
Bus Fund for Tech Prof
F S Su EGEN-330 3
F S, Su Core AHSD 3
Prof Elective 3
Prof Elective 3
Core AHSD 3
FE Exam
F S EGEN-488 0
Writing
F S, Su WRIT 101W 3
Appl Analysis
F S ECIV 202 1
Prerequisite: M-151 Pre-Calc
Physics II w/calculus
F S, Su PHSX-222 4
Co-req.M 172Q
Geotechnical
F S ECIV 320 3
CE Design 2
F S ECIV 499R 3
Seminar
F S, Su Core US 3
2nd Writing
F S, Su 3
*See Options Below
Intro to CAD
F S DDSN 131 3
F S, Su Basic Sci 3
*See Options Below
Multi-D Design
F S, Su EGEN-310R 3
Construction Practice
F S ECIV 308 3
F S, Su Core AHSD 3
CE 22-23 Catalog (v2 starts F'24)
Civil Engineering Program
Math Level 5: M-171Q Start
128 total credits required to graduate (42 of those 128 must be 300 level and above)
Prerequisite
Co-requisite
Name
MSU GID
Must Complete:
ECIV 333 and 312 and EGEN 310R Prior to taking ECIV 499R (CE Design)
Choose one course from 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)
PROFESSIONAL ELECTIVE COURSES – SEE BACK OF FLOWCHART
2022-23
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 2012-2021 catalogs follow this flowchart to complete their degree requirements.)
2nd Writing: (Choose one) BMGT 205, WRIT 201, WRIT 221, HONR 202
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)
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)
EELE 250 (F,S) Circuits (4)
EGEN 324 (F,S) Applied Thermodynamics (3) (Pre-req: PHSX 220, Co-Req: M 172)
Pre-Professional Block Courses (Complete w/C- or better before taking Prof. Block Courses)
Professional Block Courses
Science Content
Communication Content
Math Courses
Mechanics Courses
"Cultural" Core

2021-2023 Civil Engineering Professional Electives (Total of 15 cr-hrs required) Updated 2/24

	Rubric	Number	Cr Hrs	Title	Offered	Prerequisite
Design Courses — At least two	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
	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