

Idaho State University
Suggested Bachelor of Science in Civil Engineering Four-year Plan
Effective Fall 2018

Fall Semester, 1 st Year				Spring Semester, 1 st Year			
Course	Cr	Pre (Co) Req ¹	Term ²	Course	Cr	Pre (Co) Req ¹	Term ²
ENGL 1101 English Comp	3		F/S/Su	MATH 1175 Calculus II	4	MATH 1170	F/S/Su
MATH 1170 Calculus I	4	MATH 1147 or MATH 1143 & 1144	F/S/Su	PHYS 2211 Engr. Physics I	4	(MATH 1175)	F/S
CHEM 1111, 1111L General Chem I & Lab	4+1	MATH 1143 or 1147	F/S/Su	CS 1181 – Computer Programming	3	MATH 1147	F/S
GEOL 1101, 1101L OR BIOL 1100, 1100L	3+1 4+0		F/S/Su F/S	CE 1105 Engr. Graphics	2	MATH 1147	F/S
	16			ENGL 1102 Critical R & W	3	ENGL 1101	F/S/Su
					16		

Fall Semester, 2 nd Year				Spring Semester, 2 nd Year			
Course	Cr	Pre (Co) Req ¹	Term ²	Course	Cr	Pre (Co) Req ¹	Term ²
CE/ME 2210 Statics	3	(CE 1105), (PHYS 2211), (MATH 1175)	F/S	CE/ME 2220 Dynamics	3	CE/ME 2210	F/S
MATH 3352 Intro. to Prob.	3	MATH 1175	F/S	CE/ME 3350 Mech. of Mat.	3	CE/ME 2210	F/S
MATH 2240 Linear Algebra	3	MATH 1170	F/S	MATH 3360 Diff. Equations	3	MATH 1175	F/S
CE 2200 Civil Engr. Tools	1	MATH 1170, CS 1181	F	CE 3332 Basic Geotechnics	3	CE/ME 2210	S
COMM 1101 Prin. of Speech	3		F/S	CE 3337 Geotech Lab	1	(CE 3332), ENGL 1102	S
Gen Ed: Objective 6 Course ³	3		F/S/Su	Gen Ed: Objective 6 Course ³	3		F/S/Su
	16				16		

Fall Semester, 3 rd Year				Spring Semester, 3 rd Year			
Course	Cr	Pre (Co) Req ¹	Term ²	Course	Cr	Pre (Co) Req ¹	Term ²
CE 3362 Structural Analysis	3	CE/ME 3350, MATH 2240	F	CE/ME 3341 Fluid Mechanics	3	CE/ME 2220, MATH 3360	F/S
CE 3366 CE Materials	2	CE/ME 3350	F	CE 3351 Engr. Hydrology	3	(CE/ME 3341)	S
CE 3367 CE Materials Lab	1	CE/ME 3350, (CE 3366), ENGL 1102	F	CE 4462 Steel Structures ³ or CE 4464 Concrete Str. ⁴	3	CE 3362	OS ⁴ ES ⁴
CE 3301 Surveying	3	CE/ME 2210	F	ENVE 4408 W & W Quality	3	CHEM 1111, 1111L	S
CE 3361 Engr. Econ.	3	CE/ME 2210	F/S	Gen Ed: Objective 6 Course ³	3		F/S/Su
CE 4434 Geotech Design	3	CE 3332, CE/ME 3350	F				
	15				15		

Fall Semester, 4 th Year				Spring Semester, 4 th Year			
Course	Cr	Pre (Co) Req ¹	Term ²	Course	Cr	Pre (Co) Req ¹	Term ²
ENVE 4410 Intro Env. Engr.	3	ENVE 4408	F	CE 4436 Transportation Engr.	3	CE 3301, CE 3337, CE 3367	S
CE 4435 Hydraulic Design	3	CE/ME 3341	F	CE 4496B Project Design II	3	CE 4496A	S
CE 4496A Proj. Design I	3	Admission	F	CE Technical Elective ⁵	3		F/S
CE Technical Elective ⁴	3		F/S	Gen Ed: Objective 9 Course ³	3		F/S/Su
CE Technical Elective ⁵	3		F/S	Gen Ed: Objective 4 Course ³	3		F/S/Su
	15				15		

Total Credits = 124

Civil Engineering Technical Electives

¹ In the "Pre (Co) Req" column, courses that are in parentheses and underlined indicate pre- or co-requisite, otherwise they indicate prerequisites.

² Indicates when courses are normally taught, but not guaranteed; F – Fall, S – Spring, Su – Summer.

³ If both CE 4462 and CE 4464 are taken, one will be counted as a CE technical elective course. OS = Odd-numbered year Spring, ES= Even-numbered year Spring.

⁴ Civil Engineering Technical Elective courses must be selected from at least two areas of Geotechnical, Structures, Water Resources, Environmental, or other areas. See the next page for a list of the CE Technical Elective courses.

Civil Engineering students must choose three CE Technical Electives from the following list from at least two areas of Geotechnical, Structures, Water Resources, Environmental, or other areas. Students are encouraged to consult with their advisor in order to choose appropriate electives. There may be other courses to choose from that do not appear on this list (new or special courses).

Course Number	Course Name	Pre (Co) Req	Credits
CE 4406	Green and Sustainable Engineering	CHEM 1111	3
CE 4424	Open Channel Flow	CE 3341	3
CE 4425	Water Resources	CE 3341	3
CE 4431	Advanced Mechanics of Solids	CE 3350, MATH 3360	3
CE 4438	Foundation Engineering	CE 3332, CE 3337, CE4434.	3
CE 4454	Basic Engineering Geology	(CE 3332)	3
CE 4455	Geologic Data Methods	CE 4454	3
CE 4460	Project Management	CE 3361	3
CE 4462 ⁵	Design of Steel Structures	CE 3362	3
CE 4464 ⁶	Design of Concrete Structures	CE 3362	3
CE 4465	Design of Prestressed Concrete Structures	CE 4464	3
CE 4466	Design of Wood Structures	CE 3362	3
CE 4468	Behavior of Composite Materials	CE 3350/MATH 2240	3
CE 4481	Independent Problems		3
CE 4499	Special Topics		3
ENVE 4404	Environmental Risk Assessment		3
ENVE 4409	Water and Waste Water Lab	ENVE 4408	1
ENVE 4430	Air Pollution and Solid Waste		3
ME 4440	Vibrations Analysis		3

General Education Requirements⁶

- Objective 1:** Satisfied with ENGL 1102 (must obtain a minimum grade of C-)
- Objective 2:** Satisfied with COMM 1101
- Objective 3:** Satisfied with MATH 1170
- Objective 4:** Two of the following, selected from different categories (Humanities, Fine Arts, or Foreign Language):
- Humanities: ENGL 1110, 1115, 1126, 2257, 2258; HONS 1102; PHIL 1101, 1103
- Fine Arts: ART 1100, 1101, 1102, 2210; DANC 1105, 2205; MC 2210; MUSC 1100, 1106, 1108, 1109; THEA 1101
- Foreign Language: ANTH/ARBC/CHNS/FREN/GERM/JAPN/LATN/RUSS/SHOS/SPAN 1101, 1102; CSED 1151, 1152
- Objective 5:** Satisfied with GEOL 1101 & 1101L or BIOL 1100 & 1100L, CHEM 1111 & 1111L, PHYS 2211
- Objective 6:** Two of the following, selected from different prefixes:
AMST 2200; ANTH 1100; ECON 1100, 2201, 2202; HIST 1101, 1102, 1111, 1112; POLS 1101; PSYC 1101; SOC 1101, 1102; WS 2201
- Obj. 7 or 8:** Minimum of one course from either Objective 7 or 8
Objective 7: ANTH/ENGL/LANG 1107; CS 1181; HIST 1118; PHIL 2201; POLS 2202; SOC 2248
Objective 8: CIS 1101; GEOL 1108; HIST 2291; LLIB 1115
- Objective 9:** One of the following:
ANTH 2212, 2237, 2238, 2239; CMLT 2207, 2208, 2209; CSED 2256⁷; EDUC 2204; ENGL 2212; HIST 2249, 2251, 2252, 2254, 2255; PHIL 2210;
Language⁸: ANTH/ARBC/CHNS/FREN/GERM/JAPN/LATN/RUSS/SHOS/SPAN 2201, 2202

⁵ One of these two courses is a required class. If both classes are taken, one will be counted as a CE elective course.

⁶ Students entering ISU Fall 2013 or later must satisfy the above General Education requirements.

⁷ CSED 2256 requires CSED 1151 and 1151L as prerequisites.

⁸ All language courses at 2000 level require beginning courses or equivalent (For example, SPAN 2201 requires SPAN 1102 or equivalent, and SPAN 1102 requires SPAN 1101 or equivalent).