Accelerated B.S. Civil Engineering

Accelerated BS to MS Program

Students accepted into an accelerated undergraduate program may take departmentally approved graduate coursework as part of their undergraduate curriculum. These credits will count towards both their bachelor's and master's degrees and can fulfill major requirements, upper-division requirements, and/or free electives. For details on accelerated programs at Idaho State University, please see (Degree Requirements (https://coursecat.isu.edu/undergraduate/degreerequirements/)). Students should apply to the Department of Civil and Environmental Engineering for admission into the Accelerated Program.

Once accepted into an accelerated degree program, it is strongly recommended for students to stay in close communication with their advisor regarding the pursuit of acceptance into the Graduate School and the master's degree program at Idaho State University. Acceptance into an accelerated program during the bachelor's degree program is the first step in the admissions process. A separate application to the Graduate School is necessary for all accelerated programs. For more information regarding application and admission to the Graduate School at Idaho State University, please see the Graduate Admissions section of the graduate catalog (http://coursecat.isu.edu/graduate/graduateadmissions/).

Admission Requirements

4+1 BS and non-thesis MS Accelerated Program: Qualified undergraduate students (GPA # 3.3) can apply for the accelerated 4+1 BS and MS program (civil or environmental) prior to their last two semesters in the BS program. Approved students can count up to nine credits of 5000-level required or technical elective courses toward their BS graduation plan. The nine credits of 5000-level coursework will count towards their non-thesis MS degree. An additional 24 credits of graduate coursework is required for the accelerated MS program, of which one three-credit course must be CE 6660 Special Project.

General Education

Including the University's General Education Requirements (a minimum of 36 credits--see the General Education Requirements in the Academic Information section of this catalog), students must complete the required courses listed below. Some of the required courses also satisfy or partially satisfy the General Education Objectives, as noted. The courses are listed in the sequence they are to be taken.

Code	Title	Credits
Objective 1 - ENGL 1102		6
Objective 2 - COMM 1101		3
Objective 3 - MATH 1170		3
Objective 4		6
Objective 5 CHEM 1111/CHEM 1111L and GEOL 1100/ GEOL 1100L or GEOL 2204 or GEOL 2205		9
Objective 6		6
Students must fulfill Objective 7 or Objective 8		3
Objective 7- CS 1181		
Objective 8		
Objective 9		3
Total Credits		**39**

Required Courses

Code	Title	Credits
ENGL 1102	Writing and Rhetoric II (Partially satisfies General Education Objective 1)	3
MATH 1170	Calculus I (Satisfies General Education Objective 3)	4
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab (Partially satisfies General Education Objective 5)	5
Choose one of the following:		**4**
GEOL 1100 & 1100	The Dynamic Earth and The Dynamic Earth	
GEOL 2204	Fluid Earth	
GEOL 2205	Solid Earth	
BIOL 1101 & 1101L	Biology I and Biology I Lab	
MATH 1175	Calculus II	4
PHYS 2211	Engineering Physics I (Partially satisfies General Education Objective 5)	4
CE 1105	Engineering Graphics	2
CE/ME 2210	Engineering Statics	3
CS/INFO 1181	Computer Science and Programming I	3
MATH 3352	Introduction to Probability	3
MATH 2240	Linear Algebra	3
CE 2200	Civil Engineering Tools	1
COMM 1101	Fundamentals of Oral Communication (Satisfies General Education Objective 2)	3
CE/ME 2220	Engineering Dynamics	3
CE/ME 3350	Mechanics of Materials [4]	3
MATH 3360	Differential Equations	3
CE 3332	Basic Geotechnics [4]	3
CE 3337	Geotechnical Engineering Laboratory	1
CE 3301	Surveying	3
CE 3362	Structural Analysis	3
CE 3361	Engineering Economics and Management	3
CE 3366	Civil Engineering Materials	2
CE 3367	Civil Engineering Materials Laboratory	1
CE 4434/5534	Geotechnical Design	3
CE/ME 3341	Fluid Mechanics [4]	3
CE 3351	Engineering Hydrology	3
ENVE 4408/5508	Water and Waste Water Quality [1]	3
CE 4462/5562	Design of Steel Structures	3
or CE 4464/5564	Design of Concrete Structures	
ENVE 4410/5510	Introduction to Environmental Engineering	3
CE 4435/5535	Hydraulic Design	3
CE 4496A	Project Design I	3
CE 4436/5536	Transportation Engineering	3

CE 4496B	Project Design II	3
CE Technical Electives [2]		9
Add'l General Education Objectives [3]		
Total Credits		**106**

1. Students must earn a minimum of C- in CHEM 1111/CHEM 1111L before enrolling in ENVE 4408.
2. List of approved courses is available in the Civil Engineering Checklist. Two of the three CE Technical Elective courses must be selected from at least two different areas of Geotechnical, Structures, Water Resources, Environmental, or other areas. The third technical elective can be taken from any of the above areas or from another category or course that has been approved by the Department.
   Geotechnical: CE 4438, CE 4454/CE 5554, CE 4455/CE 5555, CE 4475/CE 5575, CE 4476/CE 5576, CE 4480/CE 5580
   Structures: CE 4431/CE 5531, CE 4462/CE 5562, CE 4464/CE 5564, CE 4465/CE 5565 CE 4466/CE 5566, CE 4468/CE 5568
   Water Resources: CE 4424/CE 5524, CE 4425/CE 5525
   Environmental:CE 4406/CE 5506, ENVE 4404/ENVE 5504, ENVE 4409/ENVE 5509, ENVE 4430/ENVE 5530
   Other: CE 4460/CE 5560, CE 4481, ME 4440/ME 5540
3. See the General Education Requirements in the Academic Information section of this catalog.
4. A minimum of C- is required for CE 3332, CE 3341/ME 3341 and CE 3350/ME 3350

Approved students can count up to nine credits of 5000-level required or technical elective courses toward their BS graduation plan.

Emphasis in Engineering Geology

Code	Title	Credits
Complete the following courses in addition to the Bachelor of Science in Civil Engineering:		
CE/GEOL 4454	Basic Engineering Geology	3
CE/GEOL 4455	Geologic Data Methods	3
CE/GEOL 4475	Essentials of Geomechanics	3
CE/GEOL 4476	Engineering Geology Project	1
CE 4480/GEOL 4483	Earthquake Engineering	3

Degree Totals

Code	Title	Credits
Program Admission Requirements		
General Education		39
Major Requirements (w/o General Education)		86
Upper Division Free Electives		0
Free Electives		0
Total Credits		**125**

(https://coursecat.isu.edu/graduate/scienceengineering/civilandenvironmentalengineering/mscivilengineering/)

Master of Science in Civil Engineering (https://coursecat.isu.edu/graduate/scienceengineering/civilandenvironmentalengineering/mscivilengineering/)