# Idaho State University Bachelor of Science in Civil Engineering

**Graduation Checklist Effective Fall 2014**

## Student’s Name: Bengal ID Number:

**Advisor: Advisor’s Signature:**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Course** | **Cr** | **Semester**  **taken** | **Grade** | **Comments** | **Course** | **Cr** | **Semester**  **taken** | **Grade** | **Comments** |
| ENGL 1102 Critical R & W | 3 |  |  |  | MATH 1175 Calculus II | 4 |  |  |  |
| MATH 1170 Calculus I | 4 |  |  |  | PHYS 2211 Engr. Physics I | 4 |  |  |  |
| CHEM 1111, 1111L  General Chem I & Lab | 4+1 |  |  |  | ME 1165 Str. Programming | 2 |  |  |  |
| GEOL 1101, 1101L  **or**  BIOL 1100, 1100L | 3+1  4+0 |  |  |  | CE 1105 Engr. Graphics | 2 |  |  |  |
| Objective1 | 3 |  |  |  |
|  |  |  | Objective[1](#_bookmark0) | 3 |  |  |  |
|  | 16 |  | | |  | 18 |  | | |
| **Course** | **Cr** | **Semester**  **taken** | **Grade** | **Comments** | **Course** | **Cr** | **Semester**  **taken** | **Grade** | **Comments** |
| CE/ME 2210 Statics | 3 |  |  |  | ME 2220 Dynamics | 3 |  |  |  |
| MATH 3352 Intro. to Prob. | 3 |  |  |  | CE/ME 3350 Mech. of Mat. | 3 |  |  |  |
| MATH 2240 Linear Algebra | 3 |  |  |  | MATH 3360 Diff. Equations | 3 |  |  |  |
| CE 2200 Civil Engr. Tools | 1 |  |  |  | CE 3332 Basic Geotechnics | 3 |  |  |  |
| COMM 1101 Prin. of Speech | 3 |  |  |  | CE 3337 Geotech Lab | 1 |  |  |  |
| Objective[1](#_bookmark0) | 3 |  |  |  | Objective[1](#_bookmark0) | 3 |  |  |  |
|  | 16 |  | | |  | 16 |  | | |
| **Course** | **Cr** | **Semester**  **taken** | **Grade** | **Comments** | **Course** | **Cr** | **Semester**  **taken** | **Grade** | **Comments** |
| CE 3362 Structural Analysis | 3 |  |  |  | CE/ME 3341 Fluid Mechanics | 3 |  |  |  |
| CE 3366 CE Materials | 2 |  |  |  |
| CE 3367 CE Materials Lab | 1 |  |  |  |
| CE 3301 Surveying | 3 |  |  |  | CE 3351 Engr. Hydrology | 3 |  |  |  |
| ENVE 4408 W & W Quality | 3 |  |  |  |
| CE 3361 Engr. Econ. | 3 |  |  |  | CE 4462 Steel Structures2  **or**  CE 4464 Concrete Str[.2](#_bookmark1) | 3 |  |  |  |
| CE 4434 Geotech Design | 3 |  |  |  | Objective[1](#_bookmark0) | 3 |  |  |  |
|  | 15 |  | | |  | 15 |  | | |
| **Course** | **Cr** | **Semester taken** | **Grade** | **Comments** | **Course** | **Cr** | **Semester taken** | **Grade** | **Comments** |
| ENVE 4410 Intro Env. Engr. | 3 |  |  |  | CE 4436 Transportation Engr. | 3 |  |  |  |
| CE 4435 Hydraulic Design | 3 |  |  |  | CE 4496B Project Design II | 3 |  |  |  |
| CE 4496A Proj. Design I | 3 |  |  |  | CE Technical Elective[3](#_bookmark2) | 3 |  |  |  |
| CE Technical Elective3 | 3 |  |  |  | CE Technical Elective[3](#_bookmark2) | 3 |  |  |  |
| CE Technical Elective[3](#_bookmark2) | 3 |  |  |  | Objective[1](#_bookmark0) | 3 |  |  |  |
|  | 15 |  | | |  | 15 |  | | |

**Total Credits = 126\***

1 See General Education Requirements; two courses from Objective 4, two courses from Objective 6, one course from Objective 7 or 8, and one course from Objective 9.

2 If both CE 4462 and CE 4464 are taken, one will be counted as a CE technical elective course.

3 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.

**\*** Total credits will increase to 127, if foreign language is taken to fulfill Objective 4 of the General Education Requirements.

# Civil Engineering Technical Electives

Civil Engineering students must choose four 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 3351 | 3 |
| CE 4425 | Water Resources |  | 3 |
| CE 4431 | Advanced Mechanics of Solids | CE 3350, MATH 3360 | 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 44624 | Design of Steel Structures | CE 3362 | 3 |
| CE 4464[4](#_bookmark3) | 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  GEOL 4403 | Vibrations Analysis  Principles of GIS | (4403L) | 3  3 |

# General Education Requirements5

**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 22566; EDUC 2204; ENGL 2212; HIST 2249, 2251, 2252,

2254, 2255; PHIL 2210;

Language7: ANTH/ARBC/CHNS/FREN/GERM/JAPN/LATN/RUSS/SHOS/SPAN 2201, 2202

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

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

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

7 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).