CIVIL ENGINEERING – CURRICULUM FLOW DIAGRAM for the 2010-2011 CATALOG

LEGEND:

References (Reverse side)

Prerequisites (consult catalog)

Corequisites (consult catalog)

Grade of “C” or better required

NO CREDIT DEFICIENCIES (if applicable)

1st SEMESTER

ENG 101 3

MAT 170 3

Pre Calculus

HS CHM/ A or B or CHM 113

2nd SEMESTER

ENG 102 3

ECN201/211/212 3

Econ.

SB

3rd SEMESTER

MAT 275 3

Modern Diff Eqns

MAT 267 3

Calc for Engrs III

4th SEMESTER

Basic Science Elective 3

HU / SB 3

5th SEMESTER

IEE 380 3

Prob. & Statistics

CEE 384 3

Num. Methods

6th SEMESTER

CEE 300 3

Eng Business Practice

7th SEMESTER

HU SB

15 Hrs min.

C_______

G_______

H CEE 400

UD CEE 400

8th SEMESTER

HU / SB 3

Design Elec. 3

Tech. Elec. 3

Tech Elec. 3

Electives in the SB/HU area are selected from the General Catalog. However, students should consider the following electives that may enhance their Civil Engineering Program such as:

- SB: COM 100, 110, 320, GCU 421, 361, 141,442
- HU: FSE 194 (Technology, Society & Sustainability), CON 101, APH 100, PUP 100, 200

Technical Electives

Design Electives

Structures CEE 420, 421, 423

202 or 421

Water Resources CEE 440, 441, 466

441 or 466

Environmental CEE 462, 467

462

Geotechnical CEE 452

452

Transportation CEE 412,474,475,483

412 or 475

General CEE 281, 481, 494 (Sustainable CEE Systems)
CIVIL ENGINEERING REFERENCES / NOTES

1. **WAC 101** (WAC107 for International Students). Is required for students with the following test score: SAT 460 or lower, ACT 18 or lower, or TOEFL 540 or lower.

2. **MAT 170**. Students who are considering enrolling in MAT 170 must take a placement examination. [http://math.asu.edu/fym/placement.html](http://math.asu.edu/fym/placement.html).

3. **PHY 105**. For students who have not taken high school Physics. Algebra and Trigonometry are prerequisites.

4. **MAT 265**. Students who are considering enrolling in MAT 265 must take a placement examination. [http://math.asu.edu/fym/placement.html](http://math.asu.edu/fym/placement.html).

5. **CHM 114** requires H.S. Chemistry with A or B grade; CHM 116 requires CHM 113 as a prerequisite.

6. **CEE 100**. H.S. elementary computer usage or CSE 180; Physics and Algebra required.

7. **PHY 121**. H.S. Physics or PHY 105 and MAT 265 as pre-requisites.

8. **Basic Science**. Electives include courses related to civil engineering in: life sciences, earth sciences, advanced chemistry and advanced physics. The CEE Dept. recommends either GLG 101 or CHM 231.

9. **HU & SB**. Minimum of 6 hours each required for HU and SB; minimum of 15 hours required for HU + SB electives. HU and SB electives need to satisfy the following requirements:
   a. The HU and SB electives must be selected to satisfy the three General Study areas.
   b. Awareness Areas (a minimum of six hours required): Cultural Diversity in the United States (C); Global Awareness (G) and Historical Awareness (H). CEE 400 satisfies H.
   c. A course can satisfy more than one of the Awareness Areas.
   d. At least 1 HU or SB elective must be upper division (UD), i.e., 300-level or above. CEE 400 satisfies UD.
   e. ECN 201 or 211 or 212 (SB) and CEE 400 (HU, H) are required in the CE curriculum.

10. **EEE 202 & MAE 240**. Select EEE 202 (Circuits I) or MAE 240 (Thermofluids I). If both courses are taken, one of them will be used as Technical Elective.

11. **Design and Technical Electives**. Minimum of 2 courses of design electives covering different areas of CEE specialization are required. Design and technical electives must cover at least three different areas of CEE specialization. The general technical electives do not cover any CEE area. Not more than one course may be selected outside CEE with advisor’s approval. Construction courses approved as technical electives are: CON 383, 495, and 496.

   Note that most design and technical electives are offered once a year. Therefore, students are advised to plan ahead to ensure taking all intended courses without delay in graduation.

Independent Study CEE 499 and 500-level courses are for seniors with a GPA of 3.0 or better, and a petition must be completed. See your academic advisor.

12. **CEE 486**. Required of seniors in their last semester of coursework.

13. **Order of Engineering Courses**: 100-level courses must be completed before taking 200-level courses, 200-level courses must be completed before taking 300-level courses, and 300-level courses must be completed before taking 400-level courses. This order of courses is important not only to satisfy the prerequisite requirements, but also to avoid time conflicts that typically exist among different level courses.

14. **Graduation Requirements**. A minimum cumulative GPA of 2.30 required in all CEE 3XX courses. A minimum cumulative GPA of 2.30 required in all CEE 4XX courses. A maximum of two “D” grades are allowed in all 3XX and 4XX courses combined. The total GPA of all ASU courses must be 2.00 or higher.