CIVIL ENGINEERING – CURRICULUM FLOW DIAGRAM for the 2007-2008 CATALOG

LEGEND:

References (Reverse side) 1
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
MAT 265 3 Calc for Engrs I
CHM 114 Engr. 4 or CHM 116 Gen.
CEE 100 3 Intro to CEE

2nd SEMESTER

ENG 102 3
ECN 211/212 3 Macro/Micro Econ
MAT 266 3 Calc for Engrs II
MAT 242 2 Linear Algebra
PHY 121 3 Univ. Physics I

3rd SEMESTER

MAT 275 3 Modern Diff Eqns
MAT 267 3 Calc for Engrs III
CEE 211 4 Statics & Dynamics
CEE 213 3 Deform Solids
ECN 211/212 3 Macro/Micro Econ

4th SEMESTER

Basic Science Elective 3
HU / SB 3
HU / SB 3
CEE 213 3 Deform Solids
CEE 211 4 Statics & Dynamics

5th SEMESTER

IEE 380 3 Prob. & Statistics
CEE 384 3 Num. Methods
CEE 211 4 Statics & Dynamics
CEE 321 4 Structural Analysis
CEE 353 3 CE Materials
CEE 372 4 Transportation Eng

6th SEMESTER

CEE 300 3 Eng Business Practice
CEE 351 4 Geotechnical Eng
CEE 341 4 Fluid Mech. for CE
CEE 361 4 Environ Eng

7th SEMESTER

CEE 400 3 Earth Sys, HU,H
Design Elec. 3
Tech. Elec. 3
Tech. Elec. 3
Tech Elec. 3

8th SEMESTER

HU / SB 3
Design Elec. 3
Tech. Elec. 3
Tech. Elec. 3
Tech. Elec. 3
CEE 486 3 Integrated Design

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: CON 101, APH 100, PUP 100, 200

Technical Electives

Structures CEE 420, 421, 423 420 or 421
Water Resources CEE 440, 441 441
Environmental CEE 462, 466, 467 462 or 466
Geotechnical CEE 452 452
Transportation CEE 281,412,474,475,481,483 412 or 475

4/24/07
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**. All students who enroll in MAT 170 will be required to take a readiness examination (available online). The examination will be administered in the Department of Mathematics Testing Center. Information concerning the date and location of the examination can be obtained from the Mathematics Department. Students performing poorly on the examination will be advised to take MAT 106.

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

4. **MAT 265**. Students who are enrolled or considering enrolling in MAT 265 must take a placement examination. The examination will be administered in the Department of Mathematics Testing Center. Information concerning the date and location of the examination can be obtained from the Mathematics Department. Any student who is notified that he/she has not done well on the placement examination will be denied admission to MAT 265 and given an opportunity to enroll in MAT 106.

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 181; Physics and Algebra required.

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

8. **Skill-set courses** (MAT 242, 266, 267, 275, CHM 114 or 116, PHY 131, 132, and CEE 100, 211) must be completed with an average grade of 2.75 or higher.

9. **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.

10. **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 111/112 (SB) and CEE 400 (HU, H) are required by the CEE Dept.

11. **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.

12. **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. 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 499 and 500-level courses are for outstanding seniors with a GPA of 3.0 or better, and a petition must be completed.

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

14. **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.

15. **Graduation Requirements**: Each group of the CEE 300- and the CEE 400-level courses must be completed separately with a GPA of 2.30 or higher. The total GPA of all ASU courses must be 2.00 or higher.