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: GCU 141, 361, 362, 442
- HU: CON 101, APH 100, PUP 200
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 170.

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 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. **Design and Technical Courses**. Note that most design and technical courses are offered once a year. Therefore, students are advised to plan ahead to ensure taking all intended courses without delay in graduation. Fall courses are: CEE 440, 467 and 466. Spring courses are: 441, 462 and 494.

12. **CEE Technical Electives**. CEE 281, 412, 420, 421, 452, 474, 475, 481, and 483. 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 an average grade of 2.30 or higher. The total GPA of all ASU courses must be 2.00 or higher.