

The B.A. in Computer Science Program in the CEECS department will be assessed annually at two levels, activity level and program level on content knowledge, communication skills, critical thinking skills, and diversity, equity, and inclusion skills.

At the activity level (conducted by individual instructors):

- Three to 5 activities are designed for each student learning outcome (SLO).
- Activities are collected from the selected courses students take.
- Each student's performance in the SLO assessed by the activity is graded with one of the following three scores: meets, meets with concern, and does not meet the expectations.
- A set of performance indicators and the associated performance criteria for each SLO are used to rate the performance of each student.
- The overall students' performance for the SLO (or some of the associated performance indicators) is scored with a predefined rubric. The SLO will be scored also at three levels: meet, meet with concerns, and do not meet the expectations.
- The overall score for the SLO along with the instructor's reflection and improvement plan is used for the program level assessment.

At the program level (conducted by the Assessment Committee/Department Chair):

- All the activities used to assess each SLO are tabulated, together with the instructors' reflections and improvement plans.
- The overall program level attainment score for each SLO is determined based on a predefined rubric. The three attainment levels for each SLO at the program level are meet, meet with concerns, and do not meet the expectations.
- For each SLO, a summary statement including the lessons learned and a plan for continuous improvement (CI) is finalized. The CI plan includes both changes to the program curriculum and the assessment method.
- The summary statement along with the program level assessment results are communicated to the faculty for feedback and implementation.

### **CONTENT KNOWLEDGE (Declarative Knowledge, Technical Skills):**

**CR1: Students will demonstrate skills in identifying complex problems by applying principles of engineering, computing, science, and mathematics.**

**CR2: Students will demonstrate skills in solving complex problems by applying principles of engineering, computing, science, and mathematics.**

Students are required to complete COT 4420 (Formal Languages and Automata Theory), CEN 4010 (Principles of Software Engineering) and COT 4400 (Design and Analysis of Algorithms). In these courses students will learn computing theory and apply it to real computing situations. Activities will be designed by the instructors to assess students' cumulative knowledge 1 (CK1). Students are required to complete COT 3002 (Foundations of Computer Science) and COP 3530 (Data Structures and Algorithms). In these courses, students complete C++ programming assignments and projects. These assignments and projects are judged based on correctness of code, clarity of code, and run-time efficiency. Activities will be designed by the instructors to assess students' cumulative knowledge 2 (CK2).

### **COMMUNICATION (Written Communication, Oral Communication):**

**CO1: Students will demonstrate skills in technical writing.**

**CO2: Students will demonstrate the ability to effectively communicate findings through oral presentations.**

All the students are required to take capstone design course sequence (EGN4950C and EGN49502C), in which they give oral presentations and submit written reports regarding ethical, social, and legal issues related to computing. Students must make their points in these reports and presentations in a manner that is clear and effective (CO1). Students give a team oral and written report in the capstone courses (CO2).

### **CRITICAL THINKING (Analytical Skills, Practical Skills):**

**CT1: Students will demonstrate skills in analyzing problems for possible solutions that meet specified constraints.**

**CT2: Students will demonstrate skills in producing solutions with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.**

In the required Principles of Software Engineering (CEN4010) and capstone design course sequence (EGN4950C and EGN4952C), students are required to analyze problems provided by industry, research labs and defense (CT1), and produce solutions that meet the needs and constraints taking into consideration societal impacts (CT2). Activities will be designed by the instructors to assess students' skills in CT1 and CT2.

**DIVERSITY, EQUITY, and INCLUSION (Perspective Taking, Personal and Social Responsibility):**

**DEI1: Students will demonstrate their openness to working in a diverse and inclusive environment.**

**DEI2: Students will demonstrate their skills in functioning effectively on a team whose members together create a diverse and inclusive environment.**

In the required capstone design course sequence (EGN4950C and EGN4952C), student teams will develop components of a successful design project in a diverse, inclusive, and collaborative environment. Activities will be designed by the instructors to evaluate students' skills in EDI1 and DEI2.

**REFER TO FAU'S UNIVERSITY CATALOG FOR ADDITIONAL DEGREE REQUIREMENTS**