

## **Environmental Engineering Students' Research Skills**

### **Environmental Engineering MS – College of Engineering and Computer Science**

#### **Step 1: Student Learning Outcome**

Ability to develop a research plan, write technical articles, and conduct oral presentation  
(a) Ability to conduct literature search and development of a research plan (b) Ability to write technical papers and conduct oral presentation.

#### **Step 2: Methods and Measures**

Administered to all students enrolled in a selected course. Measures vary per course, and may include; homework assignments, SLO assessment exams, project reports, or oral presentations.

#### **Step 3: Criteria for Success**

70% on a scale of 100 is considered satisfactory.

#### **Step 4: Results**

Conducting a literature search and developing a research plan was assessed via a term paper proposal. Students were expected to seek four or more articles, cite them appropriately, and synthesize a research plan. All 33 students scored 90% or higher on the assignment.

Writing technical papers and conducting oral presentations was assessed via a written report and an oral presentation. The report and presentation assignment were both graded by students' peers and by the instructor. For the report, the average grade was 89%. For the presentation, the average grade was lower at 79%, however, no student scored under the assessment goal of 70%.

#### **Step 5: Improvement Actions**

Although results for both sub-SLO's exceed the criteria for success, future assessments will endeavor to identify a more challenging assignment to more accurately assess student learning.