Petroleum Engineering Proposal for Assessment of Non-thesis Graduate Students GLOs

We propose to develop a new 1-hour seminar-style course that will be required for all non-thesis graduate students in Petroleum Engineering. This approach is necessary because our non-thesis graduate programs do not require a specific set of courses that are available for assessment. More importantly, the course content will greatly benefit the development of our non-thesis graduate students.

**Proposed course numbers:** PET ENG 5003

**Credits:** This will be a 1 credit hour seminar-style course that meets one time per week.

**Description:** This course will help students to develop professional skills in the areas of communication, critical thinking, and ethics. Students will leverage skills and knowledge from previous coursework to complete assignments. Learning objectives will include the ability to write abstracts and technical papers and to orally present technical material. The course will additionally include content on resume writing, interviewing, and ethics.

**Requirements:** This will be a required course for all non-thesis graduate students. Students must have taken at least 9 hours of graduate coursework before registering. The course will be offered once per year in the spring semester.

**Assessment:** The table below outlines our plans for assessing the GLOs.

<table>
<thead>
<tr>
<th>Graduate Learning Outcome</th>
<th>Assessment tool</th>
<th>Metric</th>
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<tbody>
<tr>
<td>Knowledge</td>
<td>One of the primary assignments in this course will include an oral report and written summary of a technical subject within the student’s field of study. We will develop rubrics for evaluating the students’ knowledge and written and oral communication skills based on this assignment.</td>
<td>70% of the students will receive 80% or above (B’s) in the knowledge area</td>
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<td>Communication</td>
<td>Through a written exam, students will be given a set of possible real-world problems to address within their fields of study. We will pose targeted questions about how they would gather and understand information and make technical and ethical judgements. We will develop a rubric to score these aspects of critical thinking.</td>
<td>70% of the students will receive 70% or above (C’s) in written and oral communication area</td>
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<tr>
<td>Critical Thinking</td>
<td></td>
<td>70% of the students will receive 80% or above (B’s) on the critical thinking part of the exam.</td>
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