Gender Diversity in Engineering Majors
Personal Anecdote

What motivates us to pursue this topic?

• Gender gap is larger in some engineering majors. We hope to increase the diversity in engineering department, more female students in engineering major.

• “Misconception”: Why my female friends chose Architecture design instead of Civil Engineering

• Students can’t grasp enough useful information from some general classes efficiently and effectively. Example: CEE 100.
Problem Statement

Lack of Female Students
- Female students take up only 27% in college of engineering degree recipients
- Stereotypes interfere female students’ choices

Lack of Useful Information
- Most engineering majors do not have an introductory course
- Current introductory courses for those majors are not very helpful
- Little information about each engineering major and future career path
- Female students without engineering backgrounds have less access to engineering field

UW CoE Majors Undergraduate Enrollment Diversity

<table>
<thead>
<tr>
<th>Major</th>
<th>Female Students Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A&amp;A</td>
<td>19%</td>
</tr>
<tr>
<td>BioE</td>
<td>41%</td>
</tr>
<tr>
<td>ChemE</td>
<td>32%</td>
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<tr>
<td>CEE</td>
<td>27%</td>
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<tr>
<td>CSE</td>
<td>28%</td>
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<tr>
<td>EE</td>
<td>19%</td>
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<tr>
<td>HCDE</td>
<td>61%</td>
</tr>
<tr>
<td>ISE</td>
<td>35%</td>
</tr>
<tr>
<td>MSE</td>
<td>23%</td>
</tr>
<tr>
<td>ME</td>
<td>13%</td>
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</tbody>
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Intervention

- Include diversity education in engineering major introductory courses
- Change grading scheme from C/NC to GPA based
- Extend invitation to all incoming students, not exclusive to pre-engineering major
- Provide sufficient and specific major details and its career path information
Expectation

• More female students will be more interested and involved in engineering majors

• Opportunity of joining engineering majors will be more accessible

• More students will have a comprehensive understanding to engineering major, and will promote diversity and create a more equal playground in engineering majors

• Students will have the opportunity to understand the idea and importance of diversity in order to promote better diversity in engineering fields
Reference

- https://www.engr.washington.edu/about/mission

Thank you!