Instructor’s Course Self-Reflection

Faculty:

Please fill out and submit the following form for each undergraduate course taught in the Spring 2012 semester. This includes laboratory courses as well as service courses required for other engineering programs. If you have any questions, please contact Dr. Sohrab Asgarpoor, professor of Electrical Engineering, at sasgarpoo1@unl.edu or (402) 472-6852.

Click on the attached PDF for a sample of the type of information to include on the form.

COE Instructor’s Course Self-Reflection 2012

* Required

1. Subject Area: *
   ELEC

2. Course No.: *
   438/838

3. Section No.: *
   1

4. Semester: *
   Spring 2012

5. Instructor’s Name: *
   Sohrab Asgarpoor

6. What aspects of the course worked well?
   text here

7. What aspects of the course did not work well?
   text here

8. What suggestions would you make for improving the course?
   text here
List of prerequisites by topics: Please specify the extent to which these prerequisites are emphasized.

H – The concept is used HEAVILY in the course and is considered a core requirement
M – The concept is used MODERATELY in the course
L – The concept is used SOMEWHAT in the course and students need to be familiar with it

(SAMPLE):
1. Concepts of impedance, admittance, resistance, reactance, conductance, and susceptance - H
2. DC and AC circuit analysis (KVL, KCL, Mesh, and Nodal) - M

List of prerequisites by topic:
Please list each prerequisite on a separate line.
4. Power (real, reactive, complex, apparent) calculation in single-phase and three-phase circuits - H
5. Ampere’s law, Gauss’s law, Faraday’s law - L
6. Integral/differential calculus (Trig identities, hyperbolic forms, natural logarithms, min/max of a function, Taylor series expansion) - H
7. Manipulation of complex numbers (add, subtract, multiply, divide, complex conjugate, polar, rectangular, exponentials, etc.) - H
8. Matrix operations (add, multiply, inverse) for solving a set of simultaneous algebraic equations (also know how to use MATLAB) - M

Relationships between the Course Objectives and Student Outcome:
Please specify the extent to which student outcomes listed below are related to course objectives.

<table>
<thead>
<tr>
<th>(a) an ability to apply knowledge of mathematics, science, and engineering</th>
<th>1 - Highly Related</th>
<th>2 - Moderately Related</th>
<th>3 - Minimally Related</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b) an ability to design and conduct experiments, as well as to analyze and interpret data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(d) an ability to function on multidisciplinary teams</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e) an ability to identify, formulate, and solve engineering problems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(f) an understanding of professional and ethical responsibility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(g) an ability to communicate effectively</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) a recognition of the need for, and an ability to engage in lifelong learning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(j) a knowledge of contemporary issues</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Submit