Course Number  EE361
Course Title  Electrical Power Systems
Semester Offered   Spring 2007
Instructor  Anjan Bose
10th Day Enrollment _25_   Number Completing Successfully (C grade or better)  _24_

I. Assessment Outcomes from the Course Syllabus – place an ‘X’ next to applicable statements

X  (A) Ability to apply knowledge of mathematics, science and engineering.
(B) Ability to design and conduct experiments as well as analyze and interpret data.
(C) Ability to design a system, component, or process to meet desired needs.
(D) Ability to function on multidisciplinary teams.
(E) Ability to identify, formulate, and solve engineering problems.
(F) An understanding of professional and ethical responsibility.
(G) Ability to communicate effectively in written and oral formats.
(H) A broad education necessary to understand the impact of engineering solutions in global, economic, and societal context.
(I) Recognize the need for, and have the ability to engage in life long learning.
(J) Have a broad education and knowledge of contemporary issues.
(K) Ability to use techniques, skills and modern engineering tools necessary for engineering practices.

II. List of Course Topics from the Course Syllabus

Syllabus (about one week each):
1. Review of prerequisites (Ch. 1 & 2)
2. Transformers (Ch. 3)
3. Rotating machine fundamentals (Ch. 4)
4. Induction machines (Ch. 7)
5. Synchronous machines (Ch. 5)
6. DC motors (Ch. 8)
7. Transmission lines (Ch. 9)
8. Power system models (Ch. 10)
9. Power flow studies (Ch. 11)
10. Power system operation
III. Course Assessment Summary Table: one row of the table should be devoted to each of the checked outcomes in part I.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Topics</th>
<th>Specific Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Ability to apply knowledge of mathematics, science and engineering.</td>
<td>1 thru 10</td>
<td>10 Homework assignments, three in-class midterm exams, one final exam</td>
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<tr>
<td>(B) Ability to design and conduct experiments as well as analyze and interpret data</td>
<td></td>
<td></td>
</tr>
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</table>

IV. Using the table as a guide, for each outcome summarize your evaluation of the students’ achievement of that outcome; cite student performance on the identified measures as evidence to support your conclusions.

**ABET Criterion A**

All the measures indicate that the students’ performance was very distributed. Most students did better at grasping the concepts but had more difficulty when using those concepts to solve numerical problems. Overall, the class performance was evenly scattered from a C- to an A grade level

**ABET Criterion B**

**ABET Criterion C**

**ABET Criterion D**

**ABET Criterion E**

**ABET Criterion F**

**ABET Criterion G**
ABET Criterion H

V. Qualitative Assessment of Student Performance: using the arguments above and other data support the claim that students who completed this course with a grade of C or better have achieved each of the intended outcomes of this course.

The data from the homework assignments, midterm and final exams clearly show that the students largely did C or better work.

VI. Concerns: state any concerns you may hold about this class – were the students adequately prepared coming into it? Are there topics or outcomes where (some) students were weak after completing the course? Other concerns? Were there any comments on students’ course evaluations that should be addressed in future instances of the course?

This section is very important for improving our program: it provides critical input to the curriculum committee for identifying areas requiring attention.

Student evaluations are not available when this was written. The material is complex enough that they need a lot of help turning the concepts learnt during the lectures to usable techniques needed to solve numerical problems.

Signature __________________________________________ Date: ____May 10, 2007_______

Please email a signed copy of the completed form to Barbara Lesnik, lesnik@vancouver.wsu.edu, AND deliver a signed hardcopy to her mailbox.