Section 1. Course Title and Description

Prefix & No. | Course Title | Credits
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EE 731 | Advanced Power Electronics | 3
EE 731L | Advanced Power Electronics Lab | 1

EE 731 Course Description: This course presents an overview of switching power devices and power electronic converters focused on power electronic interfaces for renewable energy systems, switch mode power supplies and UPS systems. The course emphasizes power electronic circuit analysis, design, and control. Qualitative and quantitative analysis of power electronics is presented focusing on the design and performance of AC/DC, DC/DC, DC/AC, and AC/AC converters.

EE 731L Course Description: This course presents a practical overview of switching power devices and power electronic converters focused on power electronic interfaces for renewable energy systems, switch mode power supplies and UPS systems. The course is project based and provides the experience for students to practice in the lab the knowledge obtained in the lecture section.

EE 731-731L Co-requisites: EE 731L-731.

Section 2. Review of Course

Will this be a common or unique course? (select the appropriate option below)
X This course will be a unique course. (Go to Section 3.)

Section 3. Other Course Information

1. Are there instructional staffing impacts?
   X No, schedule management. Explain: EE 731-731L will replace EE 792 Topics – Advanced Power Electronics & Lab.

2. Existing program in which course will be offered: M.S. and Ph.D. in Electrical Engineering

3. Proposed instructional method:
   EE 731: R – Lecture
   EE731L: L - Laboratory
   Provide a brief justification: Faculty members give oral presentations of facts, principles, context, or interpretation. Instruction takes place in a traditional classroom setting. Courses meeting in a laboratory for the purpose of the application of methods and principles of a discipline.

4. Proposed primary delivery: 001 - Face to Face

5. Term in which change will be effective: Fall 2015

6. Can this course be repeated for additional credit? No

7. Will the grade for this course be limited to S/U (pass/fail)? Yes X No

8. Will section enrollments be capped? Yes, 20 maximum per section

9. Will this course be equated (i.e. considered the same course for degree completion) with any other unique or common course in the course database? Yes X No

10. Is this prefix already approved for your university? X Yes No

Section 4. To be completed by Academic Affairs

1. University department code: SEECS

2. Proposed CIP code: 14.1001
   Is this a new CIP code for this university? Yes X No