UNIVERSITY OF KENTUCKY

APR 3 200

TRANSMITTAL

The Graduate School
351 Patterson Office Tower
Lexington, KY 40506-0027
(859) 257-4613
Fax: (859) 323-1928
www.rgs.uky.edu/gs/

DATE: March 31, 2003

TO: Angel Clark
Senate Council

FROM: Lissa Holland
Graduate Council

The Graduate Council met on March 27, 2003, and approved the following:

COLLEGE OF ENGINEERING

Electrical and Computer Engineering

NEW COURSE:

EE 663 – Optoelectronic Devices (3 credits)
Cross-listed as MSE 663. Theory and applications of photodetectors, solar cells, semiconductor lasers and LED's, display devices, and charge transfer devices; nanocrystalline structure applications in Optoelectronic devices; organic semiconductor applications in Optoelectronic devices. ***Prerequisites:*** MSE 212, instructor's permission, and/or graduate standing.

00131

APPLICATION FOR NEW COURSE

Submitted by College of Engineering Date 3/13/02

Department/Division offering course Electrical and Computer Engineering

2. Proposed designation and Bulletin description of this course

a. Prefix and Number EE 663 b. Title* Optoelectronic Devices

*NOTE: If the title is longer than 24 characters (including spaces), write A sensible title (not exceeding 24 characters) for use on transcripts

c. Lecture/Discussion hours per week 3/week d. Laboratory hours per week N/A

e. Studio hours per week N/A f. Credits 3.0

g. Course description

Theory and applications of photodetectors, solar cells, semiconductor lasers and LED's, display devices, and charge trasnfer devices; nanocrystalline structure applications in optoelectronic devices; organic semiconductor applications in optoelectronic devices.

h. Prerequisites (if any)

MSE 212, instructor's permission, and/or graduate standing.

May be repeated to a maximum of _____ (if applicable)

4. To be cross-listed as MSE 663 (Prefix and Number) D E Hamil 4/5/02 (Signature, Chairman, cross-listing department)

5. Effective Date Fall 2003 (semester and year)

6. Course to be offered ☑ Fall ☑ Spring ☐ Summer

7. Will the course be offered each year? (Explain if not annually) ☑ Yes ☐ No

8. Why is this course needed?

Optoelectronic devices are at the heart of the communication, control and computer syste that drive the information age. Some examples are lasers and photodetectors used in fiber-optic communication systems. There is a great demand from the industry and student for knowledge and skills in this area.

9. a. By whom will the course be taught? Drs. Vijay Singh, Zhi Chen, Janet Lumpp, and Art Radun

b. Are facilities for teaching the course now available? ☑ Yes ☐ No
If not, what plans have been made for providing them?

ORIGINAL

Signatures of Approval:

Department Chair	4/1/02 Date
Dean of the College	10/28/02 Date
	10/29/02 Date of Notice to the Faculty
*Undergraduate Council	Date
*University Studies	Date
*Graduate Council	3/29/03 Date
*Academic Council for the Medical Center	Date
*Senate Council (Chair)	Date of Notice to University Senate

*If applicable, as provided by the Rules of the University Senate

ACTION OTHER THAN APPROVAL

EE 663
Optoelectronic Devices

Fall 2003

Proposed Course Description:

Theory and applications of photdetectors, solar cells, semiconductor lasers and LED's, display devices, and charge transfer devices; nanocrystalline structure applications in optoelectronic devices; organic semiconductor applications in optoelectronic devices. Prereq: MSE 212, instructor's consent, and/or graduate standing.

Instructor: Dr. Vijay P. Singh

Office: 453 Anderson Hall

E-mail: vsingh@engr.uky.edu

Web: http://www.engr.uky.edu/~vsingh

EE663 URL: http://www.engr.uky.edu/~vsingh/class.htm

Office hours: TR 2-4 p.m., or by appointment

Meeting Time: The course will meet MWF

Textbook: High Speed Semiconductor Devices By **Sze S.M., John Wiley, Second Edition**

Grading Policy: Your grade will be based on

Homework Assignments	10%
Quizzes	40%
Final Exam	20%
Project	30%

- Homework will be assigned almost every week. Problem solutions must show a clear systemic method for arriving at the correct solution for full credit. Points will be taken off for incorrect solutions or work that is difficult to follow.
- Failure to take an exam during the assigned class period will result in a grade of zero for that test. Student, in that case, should see the instructor to explain the circumstances.
- The student is responsible for all business conducted during any scheduled class period. Any revision to the test dates, homework assignments, etc. will be announced during the class period.
- The detected use of unethical tactics on a quiz, test, or homework will result in an E for the course. This includes copying another person's work, or making your work

GRADUATE COUNCIL

INVESTIGATOR REPORT

Course/Courses/Program: EE 663 -- Optoelectronic Devices

Category (check one): ☑ New ☐ Change ☐ Drop

Date for Council Review: 3/27/02

Recommendation (check one): ☑ Approve ☐ Approve with Reservation ☐ Disapprove

Investigator's Signature: Robert B Moss

INSTRUCTIONS:

The following questions are included as an outline only. Be as specific and as brief as possible. If the investigation was routine, please indicate this. Attach supplements as needed. Please return the form to ~~Becky Fister~~ Lissa Holland, 355 P.O.T., 0027, at least two days before the next Council meeting.

1. List any modifications made in the course proposal as submitted originally and reason(s) why.
   None.

2. If no modifications were made, review considerations which arose during the investigation and the resolutions.
   Course has been offered twice in the past as special topic course -- 28 and 11 students were registered
   No comparable courses exist in other departments.

3. List contact(s) with program units and the considerations discussed therein.
   Contacted principal instructor.

4. Additional information as needed.
   Another no-brainer.