

CBM003 ADD/CHANGE FORM

Undergraduate Council

New Course Course Change 2009

Core Category: NONE Effective Fall 2008

or

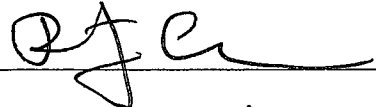
Graduate/Professional Studies Council

New Course Course Change

Effective Fall

RECEIVED FEB 20 2008

1. Department: ECE College: ENGR
2. Person Submitting Form: David P. Shattuck Telephone: x34422
3. Course Information on New/Revised course:
 - Instructional Area / Course Number / Long Course Title:
ECE / 3336 / Introduction to Circuits and Electronics
 - Instructional Area / Course Number / Short Course Title (30 characters max.)
ECE / 3336 / INTRO CIRCUITS AND ELECTRONICS
 - SCH: 3.00 Level: JR CIP Code: 14.1001.00.06 Lect Hrs: 3 Lab Hrs: 0
4. Justification for adding/changing course: To reflect change in prerequisite course
5. Was the proposed/revised course previously offered as a special topics course? Yes No
If Yes, please complete:
 - Instructional Area / Course Number / Long Course Title:
 / /
 - Content ID: Start Date (yyyy3):
6. Authorized Degree Program(s): BSCE, BSIE, BSME
 - Does this course affect major/minor requirements in the College/Department? Yes No
 - Does this course affect major/minor requirements in other Colleges/Departments? Yes No
 - Are special fees attached to this course? Yes No
 - Can the course be repeated for credit? Yes No
7. Grade Option: Letter (A, B, C ...) Instruction Type: lecture ONLY (Note: Lect/Lab info. must match item 3, above.)
8. If this form involves a change to an existing course, please obtain the following information from the course inventory: Instructional Area / Course Number / Long Course Title
ECE / 3336 / Introduction to Circuits and Electronics
 - Start Date (yyyy3): 20043 Content I.D.: 294858
9. Proposed Catalog Description: (If there are no prerequisites, type in "none".)
Cr: 3. (3-0). Prerequisites: PHYS 1322 and MATH 2433 and either CIVE 1331 or INDE 1331 or MECE 1331. Description (30 words max.): For BSIE, BSCE, and BSME majors only. Electric circuit analysis, ac circuits and frequency response, transformers, power supplies, ac power and power distribution, diodes, op amps and solid state devices.

10. Dean's Signature:  Date: 2/14/8

Print/Type Name: Fritz Claydon

Cullen College of Engineering
CBM003 Supplement - A Form
(Course Modification)

UC 9763 08F

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Must be attached to CBM003 form

Course: <u>ECE</u>	<u>3336</u>
Subject Prefix	Course Number

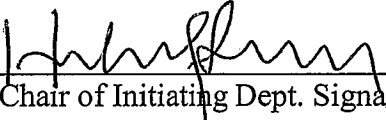
(View ECE 1331 sample attached for assistance in filling out questions 1-6)

- 1. Change in Title:** _____
Print course inventory screen using RARCAS/CATM and attach.
- 2. Change in Pre-requisite/Co-requisite:** Adding MECE 1331 or CIVE 1331 or INDE 1331 to the prerequisites for the course
- 3. Rational for Change in Course (Content, Format, Prerequisites):** The additional prerequisite was added to raise the level of problem solving skills for students taking this junior level course. The course description was edited to reflect the three majors for which this course is designed, and to keep it at the 30 word maximum.
- 4. Effect on Course Outcomes:** None
- 5. ABET Constituents consulted:** No
- 6. Course Performance after implementing format and content changes:** It is expected that the success rate in the course will increase with this change.¹
- 7. Is course required?** X Yes No
- 8. Required course outline attached?** X Yes No
- 9. Estimated student demand** 60 per semester
- 10. Similar courses in other departments:** Yes X No
a. If yes, list course(s) _____
- 11. Is course part of a sequence?** Yes X No
a. If Yes, identify the sequence and comment on the relation to prior and subsequent courses: _____
- 12. Textbook(s) and other required materials:** There is no specific required textbook. Students are encouraged to acquire one or more copies of satisfactory circuits and/or electronics textbooks.

¹ Department reports will be requested about the effects of your course modification both 12 and 24 months after the effective date of the proposed modification.

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(Course Modification)

Note: Special Fees: If special fees requested, **Course Related Fee Request Form** will be required.

 Chair of Initiating Dept. Signature	<u>2/8/8</u> Date	<input checked="" type="checkbox"/> Approved
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UNIVERSITY OF HOUSTON
DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING
ECE 3336 – INTRODUCTION TO CIRCUITS AND ELECTRONICS
SPRING SEMESTER 2008

Instructors: Dr. Dave Shattuck, E-mail: Shattuck@uh.edu
 Section 18696, 5:30-7PM, Rm. W205-D3
 Office: W326 Engineering Bldg. 2 (D3); Phone: 713 743-4422;
 FAX: (713) 743-4444, Mobile Phone: (713) 498-6888
 Office Hours: 5:30-6PM, MW, 3-5PM TuTh, or by appointment, using information above.

Required Text: None

Recommended Materials for Supplementary Self-Study

Sets of past exams and quizzes, as well as self-study materials, will be available on the web, as described at the end of this document. In addition, you are strongly encouraged to acquire a legal copy of a good circuit analysis textbook. A good textbook can supplement and complement the lecture materials. However, homework assignments will not be assigned from any specific textbook. Thus, you may acquire any edition of any good textbook, and it should be satisfactory. Good textbooks include ones from the following authors: Rizzoni, Hambley, Nilsson & Reidel, Irwin, Alexander & Sadiku, Hayt, Kemmerly & Durbin, Sedra & Smith.

Prerequisites and CFORI requisites

The following requirements must be met before enrolling in Introduction to Circuits and Electronics. In each course you must have earned a grade of "C-" or better. Waivers of any of these prerequisites are possible only through petition to Dr. Betty Barr, in Rm. N311-D (Engineering Building 1), Phone: 713-743-4450.

Prerequisites:

PHYS 1321 – University Physics I
 PHYS 1322 – University Physics II

MATH 2433 - Calc. III

GENERAL INFORMATION

Catalog Description:

Introduction to Circuits and Electronics. Cr. 3. (3-0). Prerequisites: PHYS 1322 and MATH 2433. For non-electrical engineering majors only. Electric circuit analysis, ac circuits and frequency response, transformers, power supplies, ac power and power distribution, diodes, op amps, introduction to solid state devices.

Course Objectives:

This course is intended to provide some knowledge and understanding of the fundamentals of electric circuits and electronics. The goal is to provide students in fields other than Electrical and Computer Engineering with enough understanding of these fundamentals to be able to work effectively with electrical engineers and computer engineers. Another goal is to help prepare students to pass the Fundamentals of Engineering examination.

Prerequisites by Topic:

1. Basic integral and differential calculus
2. Some exposure to basic electromagnetic theories
3. Some exposure to basic circuit theory, including Ohm's Law and Kirchhoff's Laws
4. Engineering problem solving skills
5. Familiarity with computer and analysis tools such as advanced calculators, electronic mail, and computer mathematics programs

Expected Course Outcomes:

1. Students will gain some limited knowledge about the fundamentals of electrical engineering, especially in the areas of circuit analysis and electronics, in part by gaining a greater understanding of key engineering paradigms. (ABET Program Outcome (a))
2. Students will further develop their basic skills of problem solving and critical thinking by learning techniques such as sinusoidal steady-state analysis (phasor analysis), and by developing the ability to choose between various approaches. (ABET Program Outcome (e))
3. Students will learn to take systematic approaches to difficult problems, with attention to detail and the use of clear, appropriate notation to communicate clearly. (ABET Program Outcomes (e) and (g))
4. Students will learn to use, or demonstrate that they can use, advanced calculators to perform complex arithmetic needed in phasor analysis and related operations. (ABET Program Outcome (k))

Academic Honesty Policy:

Students in this course are expected to follow the Academic Honesty Policy of the University of Houston. It is your responsibility to know and follow this policy. You must sign the Academic Honesty Statement on the last page of this handout, detach it, and submit it by Thursday, January 24, 2008. If you fail to do this, you may be dropped from the course.

Religious Holy Days:

Students whose religious beliefs prohibit class attendance on designated dates or attendance at scheduled exams may request an excused absence. To do this, you are **strongly encouraged** to request the excused absence, in writing, by January 29, 2008, which is the 16th calendar day of the semester. Please submit this written request to your instructor to allow the instructor to make appropriate arrangements. For more information, see the Student Handbook, page 19.

Students with Disabilities:

Students with recognized disabilities will be provided reasonable accommodations, appropriate to the course, upon documentation of the disability with a Student Accommodation Form from the Center for Students With Disabilities. To receive these accommodations, you must request the specific accommodations, by submitting them to the instructor in writing, by January 29, 2008, which is the 16th calendar day of the semester. Students who fail to submit a written request will not be considered for accommodations. For more information, see the Student Handbook, pages 14 and 29.

E-mail Policy and Information:

The instructors will send some kinds of information by email, through Blackboard. You are encouraged to check your email frequently to make sure that receive these messages. Blackboard uses your UH email alias for your email address.

The Cullen College of Engineering has decided to adopt e-mail as its official channel for communication with students. The Cullen College of Engineering will use your UH e-mail alias as the primary means to contact you and keep you informed about college news. As a student at the University of Houston, you have been assigned a UH e-mail alias that points to the e-mail address you provided to the university when you applied for admissions (it is blank if you did not). E-mail messages addressed to your alias are automatically forwarded to your preferred e-mail account. For example, if you provided joecougar@aol.com to UH, any e-mail sent to your new alias will automatically be sent to joecougar@aol.com. UH will use your alias to send you important university information such as emergency closings or information from your faculty and department. Please make sure that your email alias points to an email account that you check regularly.

Homework:

Since doing homework is important, we will be collecting and grading your homework assignments. Some students may be tempted to copy their homework from a fellow student, which obviously defeats the purpose of doing homework. On the other hand, we are convinced that students learn best when they learn from, and teach, one another. Therefore, you are encouraged to work on the homework in groups. We will not be looking at the similarities of the submitted homework assignments when they are graded, to encourage you to work in groups.

At the end of the semester, the grades you obtained on your homework assignments will count a few percent toward your final average. We will make the final determination of exactly how much they count at the end of the semester. However, it is important for you to understand that you cannot pass the course on the basis of homework assignments. Our experience is that if you are copying the homework, or simply not doing it, you will not do well on the exams and quizzes. Since the exams and quizzes will count far more than the homework assignments, the homework grade cannot raise your average sufficiently for you to pass the course.

Attendance:

Attendance at all classes is expected and required. The instructor may, if he chooses, take attendance in any class, at any time during the class. The instructor may do this as many times per class period as he chooses, without warning. The attendance grade can be included in the grade for the course.

Exams and Quizzes

There will be two regular exams, each given on the dates listed below. Each exam will last for 90 minutes. The final exam will last 170 minutes.

Exam 1: Saturday, March 1, at 10AM

Exam 2: Saturday, April 19, at 10AM

A comprehensive final exam will be given on Wednesday, April 30, 2008, at 5PM. If you have a conflict with any exam time, you must notify your instructor in writing during the first week of classes.

Conduct of Examinations

All examinations and quizzes are closed book and closed notes, unless otherwise announced. You may use any calculator you choose, but communications devices are not permitted. In addition, you may bring a "crib" sheet consisting of one 8 ½ x 11 in. sheet of paper, with writing on both sides, to all the exams. If you prefer, you may bring note cards or other writing media with a total area equivalent to two sides of an 8 ½ x 11 in. sheet of paper. For quizzes, the use of crib sheets is at the discretion of the instructor.

The following items are **not** permitted during the exams or quizzes: laptop computers; connections to the internet of any kind; communications devices of any kind. For this course, a TI Voyage 200 or equivalent device is considered a calculator, and is therefore permitted.

The seats for the exam will be randomly assigned. There may be more than one version of the exam given. These regulations are designed to reduce the opportunity for unfair advantage on the exams so that each person can operate under the same or similar conditions.

Grading Policy

Grades will be determined on the basis of exams, quizzes, attendance, and submitted homework grades with the following **approximate** weights. The actual weights will be fixed at the end of the semester.

Quizzes	10-15%
Homework	3-10%
Exam 1	15-25%

Exam 2
Final Exam:

15-25%
40-50%

Grade Point Rule

The following approximate grading scheme will be used to determine your grade. Note that grades will not be "curved", but instead have been previously determined by numerical average. While this scale may be modified somewhat, this listing gives a general idea of how well you are doing in the course. The final grade scale will be determined at the end of the semester.

90.00 - 100: A's
78.00 - 89.99: B's
66.00 - 77.99: C's
54.00 - 65.99: D's
below 54.00: F

Withdrawal Policy

You may drop the course through enrollment services on-line without receiving a grade until 5pm on January 28, 2008, which is the University's last day to drop without being counted as an attempt. After this date and until 5pm on April 1, 2008, which is the University's last day to drop, you can drop with a W unless you have reached the 6 total "W" limit. Do not assume that you will be dropped by the instructor if you stop attending class. You are responsible for completing the withdrawal procedure.

After the University's last day to drop from the course without receiving a grade, you are required to submit an add-drop form to your instructor for approval. These forms are available in the ECE Office (N308D). After obtaining your instructor's approval you must take the completed form to the Welcome Center. Do NOT wait until the deadline to drop to try to get your instructor's signature.

Grades of Incomplete (I) will be given only when a small portion of the course has not been completed for a good reason. If the material has been completed, an "I" grade cannot be given. Detailed information about these issues is available in the Student Handbook on page 17.

Grade Posting

Grades will be available using Blackboard, available on the web at <http://blackboard.egr.uh.edu/>. Normally, grades are available about one week after the final exam. The instructor is not allowed to give out grades over the phone or by email.