Request for **CHANGING** an Existing Course

<table>
<thead>
<tr>
<th>Department</th>
<th>Biological and Agricultural Engineering</th>
<th>College</th>
<th>Engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Rubric &amp; Number</td>
<td>BE 4290</td>
<td>Date</td>
<td>10/9/2017</td>
</tr>
</tbody>
</table>

**PRESENT COURSE DESCRIPTION**

<table>
<thead>
<tr>
<th>Title</th>
<th>BE 4290 Senior Engineering Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester Hours of Credit</td>
<td>2</td>
</tr>
<tr>
<td>If combination course type, # hrs. of credit: Lecture:</td>
<td>Lab/Sem/Rec:</td>
</tr>
<tr>
<td>Repeat Credit Max. (If repeatable):</td>
<td></td>
</tr>
<tr>
<td>Graduate Credit?</td>
<td>Yes X No</td>
</tr>
<tr>
<td>Credit will not be given for this course and:</td>
<td></td>
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<table>
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<tr>
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<tbody>
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<td>Total Weekly Contact Hours:</td>
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<tbody>
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<td>Letter Grade</td>
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BE 4290 Senior Engineering Design (2)

Prereq.: BE 3290. Students work in teams to develop a detailed design to address a technical problem. Activities include developing measurable design objectives and a product design specification, creating multiple design solutions, evaluating design solutions and communicating a detailed design.

**PROPOSED COURSE DESCRIPTION**

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<tr>
<th>Title</th>
<th>BE 4290 Senior Engineering Design</th>
</tr>
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<tbody>
<tr>
<td>Short Title</td>
<td></td>
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<tr>
<td>Semester Hours of Credit</td>
<td>2</td>
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<tr>
<td>If combination course type, # hrs. of credit: Lecture:</td>
<td>Lab/Sem/Rec:</td>
</tr>
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BE 4290 Senior Engineering Design (2)

Prereq.: BE 2350 and credit or registration in CE 3460. Students work in teams to develop a detailed design to address a technical problem. Activities include developing measurable design objectives and a product design specification, creating multiple design solutions, evaluating design solutions and communicating a detailed design.

**THESE QUESTIONS MUST BE ANSWERED COMPLETELY AND ACCURATELY OR PROPOSAL WILL BE RETURNED.**

Has this change been discussed with and approved by all departments/colleges affected? Yes X No N/A __________

Is this course included in any curricula, concentrations, or minors? Yes X No __________ If yes, please list on a separate sheet.

Is this course a prerequisite or corequisite for other courses? Yes X No __________ If yes, list courses; use separate sheet.

Is this course on the General Education list? Yes X No __________

**JUSTIFICATION/EXPLANATION:** Use separate sheet.

Note: IF COURSE IS OR WILL BE CROSS-LISTED, SEPARATE FORMS MUST BE SUBMITTED BY EACH DEPARTMENT

**APPROVALS**

<table>
<thead>
<tr>
<th>Department Faculty Approval Date</th>
<th>10/9/17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department Chair Signature (date)</td>
<td>10/9/17</td>
</tr>
<tr>
<td>Graduate Dean Signature (date)</td>
<td></td>
</tr>
<tr>
<td>College Contact</td>
<td>E-mail</td>
</tr>
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<table>
<thead>
<tr>
<th>College Faculty Approval Date</th>
<th>10/23/17</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Dean Signature (date)</td>
<td>11/9/17</td>
</tr>
<tr>
<td>Chair, FS C&amp;C Committee (date)</td>
<td></td>
</tr>
</tbody>
</table>

| Academic Affairs Approval (date) | 11/27/17 |
BE 4290 is a required course for BE majors and is a pre-requisite for BE 4292

BE 4290 Form C Justification

Since the last change of BE 4290 decoupled the groups formed in BE 3290 for BE 4290, BE 3290 will be removed from the pre-requisites for BE 4290. BE 2350 will be added to BE 4290 to prevent students from taking BE 4290 without first gaining technical knowledge and CE 3400 will be added as a co-requisite to ensure students have passed CE 2450 prior to taking BE 4290.

BE 3290 is no longer necessary as a pre-requisite for BE 4290 as the content covered does not relate, impact, add to or needed prior to either BE 4290 or BE 4292. The main topics that previously related was the formation of groups and project proposals, which was removed in the last Form C for BE 4290. The addition of BE 2350 and CE 3400 maintains and increases the requirements needed for students to take BE 4290 while increasing flexibility for when students can take BE 3290.
### Request for Changing an Existing Course

<table>
<thead>
<tr>
<th>Department</th>
<th>Electrical and Computer Engr</th>
<th>College</th>
<th>Engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Rubric &amp; Number</td>
<td>EE 4242</td>
<td>Date</td>
<td>10/1/2017</td>
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#### Present Course Description

<table>
<thead>
<tr>
<th>Title</th>
<th>VLSI Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester Hours of Credit</td>
<td>3</td>
</tr>
<tr>
<td>Lecture</td>
<td>2</td>
</tr>
<tr>
<td>Lab/Sem/Rec:</td>
<td>1</td>
</tr>
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</table>

Graduate Credit? X Yes | No |

Credits will not be given for this course and:

Contact Hours Per Week: (Indicate hours in appropriate course type.)

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Lab</th>
<th>Seminar</th>
<th>Recitation</th>
<th>Intern</th>
<th>Res/Ind</th>
<th>Clin/Pract</th>
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<tbody>
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<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</table>

Total Weekly Contact Hours: 4

Grading System: Letter Grade X Pass/Fail

Course Description:
Include course number, title, etc. exactly as it appears in the General Catalog.

**EE 4242 VLSI Design (3) Prereq.: EE 2740, EE 2230, EE 2231. 2 hrs. lecture; 2 hrs. lab. Design and implementation of logic gates for application-specific integrated circuits; system design methodology using CMOS technology.**

#### Proposed Course Description

<table>
<thead>
<tr>
<th>Title</th>
<th>VLSI Design</th>
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<tbody>
<tr>
<td>Semester Hours of Credit</td>
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<td>Lecture</td>
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<td>Lab/Sem/Rec:</td>
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</table>

Graduate Credit? X Yes | No |

Credits will not be given for this course and:

Contact Hours Per Week: (Indicate hours in appropriate course type.)

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Total Weekly Contact Hours: 4

Grading System: Letter Grade X Pass/Fail

Course Description:
Include course number, title, etc. exactly as it appears in the General Catalog.

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**These Questions Must Be Answered Completely and Accurately or Proposal Will Be Returned:**

Has this change been discussed with and approved by all departments/colleges affected? X Yes | No | N/A | X

Is this course included in any curricula, concentrations, or minors? X Yes | No X | If yes, please list on a separate sheet.

Is this course a prerequisite or corequisite for other courses? X Yes | No X | If yes, list courses; use separate sheet.

Is this course on the General Education list? X Yes | No |

**Justification/Explanation:** Use separate sheet.

**Note:** IF COURSE IS OR WILL BE CROSS-LISTED, SEPARATE FORMS MUST BE SUBMITTED BY EACH DEPARTMENT.

#### Approvals

**Department Faculty Approval Date:** 9/28/2017

**College Faculty Approval Date:** 10/23/17

**College Dean Approval:**

**Graduate Dean Signature:** 11/17/17

**Academic Affairs Approval:** 11/3/17
Summary of Changes

The Division of Electrical and Computer Engineering is replacing EE 2740 and EE 2731 in their curricula (EE and EEC) with EE 2741 and EE 2742

In this packet of documents, in order appears:

- a summary of the courses to add
- the list of courses that need to be changed
- the transition plan and how substitutions will proceed
- the ADD forms for the courses, followed by the CHANGE forms
- the FORM D for EE and EEC
- the email from CSC accepting the change and announcing their change to CSC 3102

ECE will submit the forms to drop EE 2740 and 2731 at a later date.
New Courses
EE 2741, EE 2742: Digital Logic I and II

EE 2731 is not currently a prerequisite for any courses.

EE 2740 is a prerequisite for many courses, here are the changes:

- EE 3710 – will be EE 2741, form C attached
- EE 3752 – will be EE 2742, form C attached
- EE 3755 – will be EE 2742, form C attached
- EE 4242 – will be EE 2742, form C attached
- EE 4740 – will be EE 2741, form C attached
- CSC 3102 – new prerequisite TBD by the CSC department. They are currently working on a form C

The transition plan: REVISION

Spring 2018:

Offer EE 2740 for the last time, if students cannot pass EE 2740, they must take EE 2741 a semester to follow

Fall 2018:

Offer EE 2741 for the first time, and EE 2731 for the last time; if students cannot pass EE 2740. EE 2731 they must take EE 2742 a semester to follow

Spring 2019:

Offer EE 2742 for the first time

Substitutions:

Since material in EE 2740 is spread over two courses (EE 2741, EE 2742), students with credit in EE 2740 will receive credit for EE 2741 and matriculate into EE 2742.

Students with credit in EE 2740 and 2731, will receive credit for EE 2741 and EE 2742.
EE 2741, EE 2742: Digital Logic I and II

Course Sequence Justification

Digital logic is a fundamental course in electrical and computer engineering, offered at the freshman/sophomore level. It is currently offered as a required two-course sequence, EE 2740 (Digital Logic) and EE 2731 (Digital Logic Lab). The first course in the sequence (EE 2740) develops the concepts in the classroom and the second (EE 2731) explores the applied side in a lab setting.

The proposed redesign of this course sequence is to include a lab component in both courses in the sequence. The first course in the proposed sequence, EE 2741, covers combinational logic and the beginnings of sequential logic. The 3 credit hours at this level will help lay a strong foundation for the second, 2-credit hour, course in which students can be expected to progress more quickly; this second course will cover elements of sequential logic and components such as multiplexers, counters and registers, that are important in practice. The reduction in the lecture hours will be made up for by a slight reduction in the depth of coverage in some topics, and by removing redundancy required for some lab prep in EE 2731.

In summary, the proposed courses realign the coverage of the material to expose students to the classroom and lab setting, concurrently in the same course. We believe this change will help students understand the material better; the lab setting will also help motivate student interest and retention.
Request for CHANGING an Existing Course

Department: Electrical and Computer Engr
Course Number: EE 4740
College: Engineering
Date: 9/30/2017

PRESENT COURSE DESCRIPTION
Title: Discrete Structures for Computer Engineering
Semester Hours of Credit: 3
If combination course type, # hrs. of credit for:
Lecture: NA
Lab/Sem/Rec: NA
Repeat Credit Max. (if repeatable): NA
Graduate Credit?: Yes ✔ No _
Credit will not be given for this course and:
NA
Contact Hours Per Week: (Indicate hours in appropriate course type.)
Lecture 3 Lab Seminar Recitation Intern Res/Ind Clin/Prac
Total Weekly Contact Hours: 3
Grading System: Letter Grade X Pass/Fail
Course Description:
(Include course number, title, etc. exactly as it appears in the General Catalog)

EE 4740 Discrete Structures for Computer Engineering (3) Prereq.: EE 2740 or equivalent. Mathematical logic and proof methods; graph theory; complexity of algorithms; algebraic structures; applications in computer engineering.

PROPOSED COURSE DESCRIPTION
Title: Discrete Structures for Computer Engineering
Short Title: DIS CRT ST RC CT MP ENG
Semester Hours of Credit: 3
If combination course type, # hrs. of credit for:
Lecture: ___ Lab/Sem/Rec: ___
Repeat Credit Max. (if repeatable): NA
Graduate Credit?: X Yes No
Credit will not be given for this course and:
NA
Contact Hours Per Week: (Indicate hours in appropriate course type.)
Lecture 3 Lab Seminar Recitation Intern Res/Ind Clin/Prac
Total Weekly Contact Hours: 3
Grading System: Letter Grade X Pass/Fail
Course Description:
(Include course number, title, etc. exactly as it appears in the General Catalog)

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THESE QUESTIONS MUST BE ANSWERED COMPLETELY AND ACCURATELY OR PROPOSAL WILL BE RETURNED.
Has this change been discussed with and approved by all departments/colleges affected? Yes ___ No ___ N/A ___ X
Is this course included in any curricula, concentrations, or minors? Yes ___ No ___ If yes, please list on a separate sheet.
Is this course a prerequisite or corequisite for other courses? Yes ___ No ___ If yes, list courses; use separate sheet.
Is this course on the General Education list? Yes ___ No ___

JUSTIFICATION/EXPLANATION: Use separate sheet.
Note: If course is or will be cross-listed, separate forms must be submitted by each department.

APPROVALS

Department Faculty Approval Date: 9/28/2017

College Faculty Approval Date: 10/23/17

Digital signed by Jerry L. Trahan
Date: 2017.09.29 15:41:08 -06'00'

Department Chair Signature: [Signature]
Date: 11/17/17

Graduate Dean Signature: [Signature]
Date: 11/17/17

College Dean Signature: [Signature]
Date: 11/17/17

Chair, FS C&C Committee: [Signature]
Date: 11/17/17

Academic Affairs Approval: [Signature]
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