## UNIVERSITY COURSE AND PROGRAMS COMMITTEE

## AGENDA

January 23, 2009
2:30 PM
Upchurch Conference Room

1. Approval of minutes for November 21, 2008. Meeting minutes can be viewed at http://www.uark.edu/depts/gradinfo/dean/courseprog/minutes/index.html. December 19, 2008 meeting was conducted by e-mail for course changes only.
2. Consent Agenda (Course change proposals can be reviewed at https://www2.uark.edu/webapps/regr/ccf/Main or by going to the website of the Registrar and clicking on "Faculty/Staff" then "Curriculum Change Form," and then "View Changes Pending Before the University Course and Programs Committee.")
a. Undergraduate Course Change Proposals (Table A)
b. Graduate and Dual Course Change Proposals (Tables B and C)
3. Old Business: None
4. New Business:
a. Proposed undergraduate program change for the Graduate School - Undergraduate Interdisciplinary Studies - MEPH-M - Minor in Microelectronics-Photonics (Table 1, Attachment 1A).
b. Proposed undergraduate program change for the College of Engineering - Department of Computer Science and Computer Engineering - CENGBS - BS, Computer Engineering (Table 2, Attachment 2A).
c. Proposed undergraduate program change for the College of Engineering - Department of Computer Science and Computer Engineering - CSCEBS - BS, Computer Science (Table 2, Attachment 2B).
d. Proposed undergraduate program change for the College of Engineering - Department of Electrical Engineering - ELEGBS - BS, Electrical Engineering (Table 2, Attachment 2C).
5. Other Items for Consideration: Donna Graham - Notification to programs requiring graduate courses taught on an irregular basis in other colleges.

## TABLE A

Undergraduate Courses

| COLL | DEPARTMENT <br> NAME |
| :--- | :--- |
| ARCH | Architecture |
| ARSC | Mathematical Sciences |
| ENGR | Computer Science \& Computer Engineering |
| ENGR | Engineering Dean |
| ENGR | Engineering Dean |
| ENGR | Engineering Dean |
| ENGR | Engineering Dean |
| ENGR | Engineering Dean |
| ENGR | Engineering Dean |
| IDUG | Interdisciplinary |

## UCPC

January 23, 2009

| DEPT | CRSE <br> ALPHA | $\begin{aligned} & \text { CRSE } \\ & \text { NUM } \end{aligned}$ | CRSE TITLE | CREDIT LEVEL | ACTION | CREDIT HOURS | EFFECTIVE DATE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ARCH | ARCH | 1013 | Diversity and Design | U | ANC | 3 | Fall 2009 |
| MASC | MATH | 1204 | College Algebra Enhanced | U | ANC | 4 | Fall 2009 |
| CSCE | CSCE | 2123 | Digital Techniques II | U | ELC | 3 | Fall 2009 |
| ENGD | GNEG | 2801 | Cooperative Education I | U | ELC | 1 | Fall 2009 |
| ENGD | GNEG | 2811 | Cooperative Education II | U | ELC | 1 | Fall 2009 |
| ENGD | GNEG | 3801 | Cooperative Education III | U | ELC | 1 | Fall 2009 |
| ENGD | GNEG | 3811 | Cooperative Education IV | U | ELC | 1 | Fall 2009 |
| ENGD | GNEG | 4801 | Cooperative Education V | U | ELC | 1 | Fall 2009 |
| ENGD | GNEG | 4811 | Cooperative Education VI | U | ELC | 1 | Fall 2009 |
| INTD | SPAC | $\begin{gathered} 4011 \mathrm{H} \text { to } \\ 4013 \end{gathered}$ | Honor Colloquium | U | $\mathrm{CHN}, \mathrm{CCH}$, OTH | 1 to 3 | Fall 2009 |

## TABLE B

## Graduate Courses

COLL DEPARTMENT
NAME
AFLS Poultry Science
ENGR Computer Science \& Computer Engineering

ENGR Computer Science \& Computer Engineering
ENGR Engineering Dean

ENGR Engineering Dean
ENGR Engineering Dean
GRAD Graduate Dean

UCPC
January 23, 2009

| DEPT | CRSE <br> ALPHA | CRSE <br> NUM | CRSE TITLE | CREDIT <br> LEVEL | ACTION |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: | | CREDIT |
| :---: |
| HOURS |$\quad$| EFFECTIVE |
| :---: |
| DATE |

## Table C

| Dual | rses | January 23, 2009 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| COLL | DEPARTMENT NAME | DEPT | $\begin{aligned} & \text { CRSE } \\ & \text { ALPHA } \end{aligned}$ | $\begin{aligned} & \text { CRSE } \\ & \text { NUM } \end{aligned}$ | CRSE TITLE | CREDIT LEVEL | ACTION | CREDIT HOURS | EFFECTIVE DATE |
| AFLS | Agricultural Education \& Extension | AEED | AGED | 4443 | Principles of Technological Change | D | ANC | 3 | Fall 2009 |
| AFLS | Plant Pathology | PLPA | PLPA | 4304 | Applied Plant Disease Management | D | ANC | 4 | Fall 2009 |
| ENGR | Computer Science \& Computer Engineering | CSCE | CSCE | 4914 | Advanced Digital Design | D | ANC | 4 | Fall 2009 |

KEY

| ACTION |  |
| :---: | :---: |
| ANC= | ADD NEW COURSE |
| ELC= | ELIMINATE COURSE |
| $\mathrm{CT}=$ | CHANGE TITLE |
| CD= | CHANGE DESCRIPTION |
| $\mathrm{CHN}=$ | CHANGE COURSE NUMBER FROM __TO |
| CCH= | CHANGE CREDIT HOURS FROM _TO |
| CL= | CROSS LISTED |
| CEUDC= | CHANGE EXISTING UNDERGRADUATE COURSE TO DUAL CREDIT |
| CEUGC= | CHANGE EXISTING UNDERGRADUATE COURSE TO GRADUATE CREDIT |
| CEGUC= | CHANGE EXISTING DUAL/GRADUATE COURSE TO UNDERGRADUATE CREDIT |
| OTH= | OTHER |
| RA= | REACTIVATE COURSE |
| $\mathrm{IN}=$ | INACTIVATE COURSE |

## TABLE A

Undergraduate Courses

| COLL | DEPARTMENT <br> NAME |
| :--- | :--- |
| ARCH | Architecture |
| ARSC | Mathematical Sciences |
| ENGR | Computer Science \& Computer Engineering |
| ENGR | Engineering Dean |
| ENGR | Engineering Dean |
| ENGR | Engineering Dean |
| ENGR | Engineering Dean |
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| ENGR | Engineering Dean |
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January 23, 2009

| DEPT | CRSE <br> ALPHA | $\begin{aligned} & \text { CRSE } \\ & \text { NUM } \end{aligned}$ | CRSE TITLE | CREDIT LEVEL | ACTION | CREDIT HOURS | EFFECTIVE DATE |
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| MASC | MATH | 1204 | College Algebra Enhanced | U | ANC | 4 | Fall 2009 |
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| ENGD | GNEG | 2801 | Cooperative Education I | U | ELC | 1 | Fall 2009 |
| ENGD | GNEG | 2811 | Cooperative Education II | U | ELC | 1 | Fall 2009 |
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| ENGD | GNEG | 3811 | Cooperative Education IV | U | ELC | 1 | Fall 2009 |
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| ENGD | GNEG | 4811 | Cooperative Education VI | U | ELC | 1 | Fall 2009 |
| INTD | SPAC | $\begin{gathered} 4011 \mathrm{H} \text { to } \\ 4013 \end{gathered}$ | Honor Colloquium | U | $\mathrm{CHN}, \mathrm{CCH}$, OTH | 1 to 3 | Fall 2009 |

## TABLE B

## Graduate Courses

COLL DEPARTMENT
NAME
AFLS Poultry Science
ENGR Computer Science \& Computer Engineering

ENGR Computer Science \& Computer Engineering
ENGR Engineering Dean

ENGR Engineering Dean
ENGR Engineering Dean
GRAD Graduate Dean

UCPC
January 23, 2009

| DEPT | CRSE <br> ALPHA | CRSE <br> NUM | CRSE TITLE | CREDIT <br> LEVEL | ACTION |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: | | CREDIT |
| :---: |
| HOURS |$\quad$| EFFECTIVE |
| :---: |
| DATE |

## Table C

| Dual | rses | January 23, 2009 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| COLL | DEPARTMENT NAME | DEPT | $\begin{aligned} & \text { CRSE } \\ & \text { ALPHA } \end{aligned}$ | $\begin{aligned} & \text { CRSE } \\ & \text { NUM } \end{aligned}$ | CRSE TITLE | CREDIT LEVEL | ACTION | CREDIT HOURS | EFFECTIVE DATE |
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| AFLS | Plant Pathology | PLPA | PLPA | 4304 | Applied Plant Disease Management | D | ANC | 4 | Fall 2009 |
| ENGR | Computer Science \& Computer Engineering | CSCE | CSCE | 4914 | Advanced Digital Design | D | ANC | 4 | Fall 2009 |

KEY

| ACTION |  |
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| ELC= | ELIMINATE COURSE |
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| CCH= | CHANGE CREDIT HOURS FROM _TO |
| CL= | CROSS LISTED |
| CEUDC= | CHANGE EXISTING UNDERGRADUATE COURSE TO DUAL CREDIT |
| CEUGC= | CHANGE EXISTING UNDERGRADUATE COURSE TO GRADUATE CREDIT |
| CEGUC= | CHANGE EXISTING DUAL/GRADUATE COURSE TO UNDERGRADUATE CREDIT |
| OTH= | OTHER |
| RA= | REACTIVATE COURSE |
| $\mathrm{IN}=$ | INACTIVATE COURSE |

# University Course and Programs Committee 

## 23-Jan-09

## UNDERGRADUATE PROGRAM CHANGES

## TABLE ONE

## Graduate School

## Undergraduate Interdisciplinary Programs

MEPH-M - Minor in Microelectronics-Photonics - Attachment 1A

Proposal requests to no longer require ELEG 4203 and increase the elective hours by three as specified in Section V of Attachment 1A.

## TABLE TWO

## College of Engineering

Department of Computer Science and Computer Engineering

CENGBS - BS, Computer Engineering - Attachment 2A

Proposal requests to add laboratory sections to several courses, delete several courses and change offering times as specified in Section $V$ of Attachment 2A.

CSCEBS - BS, Computer Science - Attachment 2B

Proposal requests to add laboratory sections to several courses, delete several course and change offering times as specified in Section V of Attachment 2B.

Department of Electrical Engineering

ELEGBS - BS, Electrical Engineering - Attachment 2C

Proposal requests to delete four courses with associated laboratories and add three required courses. This change also reduces the number of hours needed to graduate from 127 to 125 as specified in Section V of Attachment 2C.

GRADUATE PROGRAM CHANGES

NONE

## ADD, CHANGE OR DELETE UNIT, PROGRAM REQUIREMENTS, OR ACADEMIC POLICIES

Complete this form consistent with the instructions in Academic Policy 1622.20. Use the form to add, change, or delete a program or unit or to change program policies. Proposed additions and changes must be consistent with Academic Policies 1100.40 and 1621.10 and any other policies which apply.

SECTION I: Approvals

| Department / Program Chair | Date Submitted |
| :--- | :--- |
| College Dean | Date |
| Honors College Dean | Date |
| Core Curriculum Committee | Date |
| University Course and Programs Committee | Date |


| Graduate Council Chair | Date |
| :--- | :---: |
| Faculty Senate Chair | Date |
| Provost | Date |
| Board of Trustees Approval/Notification Date |  |
| Arkansas Higher Education Coordinating Board Approval/Notification Date |  |

SECTION II: Profile Data - Required Information and Name Change Information
Academic Unit: $\quad \square$ Major/Field of Study $\quad \square$ Minor $\quad \square$ Other Unit $\quad \square$ Policy
Level: $\quad \square$ Undergraduate $\quad \square$ Graduate $\square$ Law
Program changes are effective with the next available catalog. See Academic Policy Series 1622.20
$\begin{array}{ll}\text { Current Name } \quad \text { Minor, Microelectronics-Photonics } \\ \text { College, School, Division } \underline{\text { GRAD }} & \text { Department Code } \underline{\text { MEPH }} \\ \text { Current Code (6 digit Alpha) } \underline{\text { MEPH-M }} & \begin{array}{l}\text { Proposed Code (6 digit Alpha) } \\ \text { Prior approval from the Office of the Registrar is required. }\end{array} \\ \begin{array}{l}\text { CIP Code } \\ \underline{\mathbf{3 0 . 9 9 9 9}}\end{array} \\ \text { Prior assignment from Office of Institutional Research is required. }\end{array}$
Proposed Name
When a program name is changed, enrollment of current students reflects the new name.

## SECTION III: Add a New Program/Unit

$\square$ For new program proposals, complete Sections II and VII and use as a cover sheet for a full program proposal as described in 'Criteria and Procedures for Preparing Proposals for New Programs in Arkansas.' ADHE
http://www.arkansashighered.com/pdfs/BookAppNewProgramCriteriaandProceduresRevised2005.pdf.
$\square$ Program proposal uses courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here:

## SECTION IV: Eliminate an Existing Program/Unit

Code/Name $\qquad$ Effective Catalog Year $\qquad$
No new students admitted to program after Term: $\qquad$ Year: $\qquad$ -
Allow students in program to complete under this program until Term: $\qquad$ Year: $\qquad$
SECTION V: Proposed Changes to an Existing Program or Program Policies
Insert here a statement of the exact changes to be made: The only change is to move ELEG 4203 Semiconductor Devices from a required course to an elective course, with the number of required course hours reduced from six to three and the number of technical elective courses increased from nine to twelve.

Check if either of these boxes apply and provide the necessary signature:Program change proposal adds courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here: $\qquad$
$\square$ Program change proposal deletes courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here: $\qquad$

Check all the boxes that apply and complete the required sections of the form:
$\square$ Change of Name and Code (Complete only sections I, II, V and VII.)
【Change Course Requirements: (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)
$\square$ Change Delivery Site/Method (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)
$\square$ Change Total Hours (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)
Change in Program Policies

## SECTION VI: Justification

Justify this change and state its likely effect on any other degree program (including those outside the school or college). Identify any program or program components (other than courses) to be eliminated if this program is implemented. (Program and course change forms must also be submitted for such related changes.)
The Electrical Engineering department has changed the prerequisites for this course such that it is no longer immediately available to students in other science and engineering departments. For that reason the course has been moved from required status to elective status within the minor.

## SECTION VII: Catalog Text and Format

In the box below, insert the current catalog text which is to be changed, with changes highlighted with the color yellow. Include all proposed changes identified in Section V. Only changes explicitly stated in Section $V$ will be considered for approval by the University Course and Programs Committee, the Graduate Council and the Faculty Senate. If you are proposing a new program, give proposed text with all of the elements listed below. If you are proposing modified text, include these elements as appropriate.

Include the following elements, in order, in the catalog text for proposed undergraduate program(s) or program changes:

- State complete major/program name
- Briefly define or describe the major/program or discipline.
- Identify typical career goals or paths for graduates. (Optional)
- State admission requirements (if any) for entry or entry into upper/advanced level of major/program.
- Identify location in catalog of university, college/school, and department/program requirements which the student must meet in addition to hours in the major, but do not restate these requirements.
- State course requirements in the major and any allied areas, giving number of hours and specific courses; specify electives or elective areas and give numbers of hours and courses in elective pools or categories; identify any other course requirements.
- State any other requirements (required GPA, internship, exit exam, project, thesis, etc.).
- Identify name and requirements for each concentration (if any).
- Specify whether a minor or other program component is allowed or required and provide details.
- State eight-semester plan requirements

For minors, state requirements in terms of hours, required courses, electives, etc.
For graduate program/units, include elements (as needed) parallel to those listed for undergraduate programs above.
For Law School program/units, prepare text consistent with current catalog style.
For centers, prepare text consistent with current catalog style.

MICROELECTRONICS - PHOTONICS (MEPH)
Ken Vickers
Program Chair
248 Physics
479-575-2875
Russell DePriest
Assistant Program Director for microEP minor
131 Engineering Hall

## 479-575-4719

E-mail: microEP@cavern.uark.edu
http://microEP.uark.edu/

## Biological Engineering Faculty:

- Professor Li
- Assistant Professors Kavdia, Kim, Ye

Chemical Engineering Faculty:

- Professors Beitle, Ulrich
- Associate Professor Roper
- Assistant Professor J. Hestekin, Servoss

Chemistry Faculty:

- Professors Fritsch, Gawley, Peng, Stenken
- Assistant Professor Tian

Civil Engineering Faculty:

- Professor Selvam

Computer Science/Computer Engineering Faculty:

- Associate Professor Thompson
- Assistant Professor Di

Electrical Engineering Faculty:

- Distinguished Professors Varadan (V.K), Varadan (V.V.)
- Professors Ang, Balda, Manasreh, Mantooth, Naseem
- Associate Professor El-Shanawee
- Assistant Professor Yu
- Research Associate Porter

Industrial Engineering Faculty:

- Associate Professor Mason

Mechanical Engineering Faculty:

- Professor Malshe
- Associate Professors Gordon, Tung
- Assistant Professors Huang, Spearot, Wejinya, Zou

Microelectronics-Photonics Faculty:

- Adjunct Professors DePriest, Foster

Physics Faculty:

- Distinguished Professors Salamo, Xiao
- Professors Bellaiche, Singh
- Research Professor Vickers
- Associate Professor Fu, Oliver
- Assistant Professors Gross, Li, Tchakhalian
- Research Associate and Adjunct Professor Shultz

Microelectronics-Photonics (microEP) is an interdisciplinary program based in the Division of Interdisciplinary Studies in the Graduate School that prepares students for careers involving micro/nano materials, processing, and devices applied in areas such as photonics, microelectronics, bio/chemical analysis, etc. The microEP Graduate Program offers M.S. and Ph.D. degrees, as well as an undergraduate minor in Microelectronics-Photonics.

The purpose of this minor is to allow undergraduates in science and engineering to be able to capitalize on the research and educational core of the microEP Graduate Program as they prepare to enter the job market or compete for positions in top level graduate programs.

Requirements for a Minor in Microelectronics-Photonics: Three hours of required courses (One of INEG 4323, INEG 4433, or INEG 4443). At least an additional twelve hours must be taken from the following undergraduate courses (BENG 4123, CHEM 4213, ELEG 4203, ELEG 4223, MEEG 4303, MEEG 4443, MEPH 488V, PHYS 3603, PHYS 4713, and PHYS 4213), or from other appropriate courses not on this list if approved first by the microEP Program and by the course instructor.

Students accepted into the microEP minor must attend an orientation session at the beginning of each semester as well as the monthly microEP graduate student research presentations. Students enrolled in the microEP minor must attend at least one public presentation
of a Master of Science thesis in microEP or a Doctor of Philosophy dissertation in microEP each semester. Students wishing to declare this minor must apply through the microEP Program Web site, http://microEP.uark.edu, and be accepted into the minor at least two regular semesters before their graduation date.

## SECTION VIII: Action Recorded by Registrar's Office

## PROGRAM INVENTORY/DARS

## PGRM <br> $\qquad$ <br> DGRE <br> $\qquad$ <br> REPORTING CODES

SUBJ $\qquad$
PGCT $\qquad$

PROG. DEF. $\qquad$

CIP $\qquad$ CRTS $\qquad$
OFFC\&CRTY VALID $\qquad$ -

REQ. DEF.
Initials $\qquad$ Date $\qquad$

## Distribution

## Notification to:

(1) College
(7) Treasurer

# University Course and Programs Committee 

## 23-Jan-09

## UNDERGRADUATE PROGRAM CHANGES

## TABLE ONE

## Graduate School

## Undergraduate Interdisciplinary Programs

MEPH-M - Minor in Microelectronics-Photonics - Attachment 1A

Proposal requests to no longer require ELEG 4203 and increase the elective hours by three as specified in Section V of Attachment 1A.

## TABLE TWO

## College of Engineering

Department of Computer Science and Computer Engineering

CENGBS - BS, Computer Engineering - Attachment 2A

Proposal requests to add laboratory sections to several courses, delete several courses and change offering times as specified in Section $V$ of Attachment 2A.

CSCEBS - BS, Computer Science - Attachment 2B

Proposal requests to add laboratory sections to several courses, delete several course and change offering times as specified in Section V of Attachment 2B.

Department of Electrical Engineering

ELEGBS - BS, Electrical Engineering - Attachment 2C

Proposal requests to delete four courses with associated laboratories and add three required courses. This change also reduces the number of hours needed to graduate from 127 to 125 as specified in Section V of Attachment 2C.

GRADUATE PROGRAM CHANGES

NONE

## ADD, CHANGE OR DELETE UNIT, PROGRAM REQUIREMENTS, OR ACADEMIC POLICIES

Complete this form consistent with the instructions in Academic Policy 1622.20. Use the form to add, change, or delete a program or unit or to change program policies. Proposed additions and changes must be consistent with Academic Policies 1100.40 and 1621.10 and any other policies which apply.

SECTION I: Approvals

| Department / Program Chair | Date Submitted |
| :--- | :--- |
| College Dean | Date |
| Honors College Dean | Date |
| Core Curriculum Committee | Date |
| University Course and Programs Committee | Date |


| Graduate Council Chair | Date |
| :--- | :---: |
| Faculty Senate Chair | Date |
| Provost | Date |
| Board of Trustees Approval/Notification Date |  |
| Arkansas Higher Education Coordinating Board Approval/Notification Date |  |

SECTION II: Profile Data - Required Information and Name Change Information
Academic Unit: $\quad$ Major/Field of Study $\quad \square$ Minor $\quad \square$ Other Unit $\quad \square$ Policy

Level: $\quad \square$ Undergraduate $\quad \square$ Graduate $\square$ Law
Program changes are effective with the next available catalog. See Academic Policy Series 1622.20
Current Name $\quad \underline{\text { BS in Computer Engineering }}$

College, School, Division ENGR
Current Code (6 digit Alpha) CENGBS
$\square$ Interdisciplinary Program

Department Code CSCE
Proposed Code (6 digit Alpha)
Prior approval from the Office of the Registrar is required.
CIP Code 14.0901
Prior assignment from Office of Institutional Research is required.

Proposed Name
When a program name is changed, enrollment of current students reflects the new name.

## SECTION III: Add a New Program/Unit

For new program proposals, complete Sections II and VII and use as a cover sheet for a full program proposal as described in 'Criteria and Procedures for Preparing Proposals for New Programs in Arkansas.' ADHEhttp://www.arkansashighered.com/pdfs/BookAppNewProgramCriteriaandProceduresRevised2005.pdf.
$\square$ Program proposal uses courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here:

## SECTION IV: Eliminate an Existing Program/Unit

Code/Name $\qquad$ Effective Catalog Year $\qquad$
No new students admitted to program after Term: $\qquad$ Year: $\qquad$ _
Allow students in program to complete under this program until Term: $\qquad$ Year: $\qquad$
SECTION V: Proposed Changes to an Existing Program or Program Policies
Insert here a statement of the exact changes to be made: 1. Changes CSCE 2003/2001L Programming Foundations I to a four hour credit course with a zero credit lab (CSCE 2004).
2. Changes CSCE 2013/2011L Programming Foundations II to a four hour credit course with a zero credit lab (CSCE 2014)and moving data structures to the content of this course.
3. Changes CSCE 2113 Digital Techniques I to CSCE 2114 Digital Design, adding 1 hour credit for lab work, changing the title and updating the content of the course.
4. Adding 1 hour credit to the course CSCE 2213 Computer Organization-renumbering the course to CSCE 2214 and creating a zero credit lab.
5. Changing the title and updating the description of CSCE 3953 System Synthesis \& Modeling.
6. Creating a new course CSCE 3193 Programming Paradigms.
7. Changes the level of CSCE 4513 Software Engineering to CSCE 3513.
8. Removes CSCE 2123 Digital Techniques II from curriculum

## 9. Removes CSCE 3143 Data Structures from curriculum

10. Removes CSCE 3313 Algorithms from required curriculum and replaces the hours with a 3 hour free elective
11. Adding 1 hour credit to the course CSCE 4113 Embedded Systems - renumbering the course to CSCE 4114 Embedded Systems and creating a zero credit lab.

Check if either of these boxes apply and provide the necessary signature:
$\square$ Program change proposal adds courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here: $\qquad$Program change proposal deletes courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here:

Check all the boxes that apply and complete the required sections of the form:
$\square$ Change of Name and Code (Complete only sections I, II, V and VII.)
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Change in Program Policies

## SECTION VI: Justification

Justify this change and state its likely effect on any other degree program (including those outside the school or college). Identify any program or program components (other than courses) to be eliminated if this program is implemented. (Program and course change forms must also be submitted for such related changes.)
To keep pace with the recent trends and advances in computer hardware technology, make the curriculum more systematic and strengthen our students' skills with more industry-standard tools in the lab sessions. The programming courses are being modified to address the need for more breadth and depth in programming languages and cover IDEs and other software development tools in more detail.

## SECTION VII: Catalog Text and Format

In the box below, insert the current catalog text which is to be changed, with changes highlighted with the color yellow. Include all proposed changes identified in Section V. Only changes explicitly stated in Section V will be considered for approval by the University Course and Programs Committee, the Graduate Council and the Faculty Senate. If you are proposing a new program, give proposed text with all of the elements listed below. If you are proposing modified text, include these elements as appropriate.

Include the following elements, in order, in the catalog text for proposed undergraduate program(s) or program changes:

- State complete major/program name
- Briefly define or describe the major/program or discipline.
- Identify typical career goals or paths for graduates. (Optional)
- State admission requirements (if any) for entry or entry into upper/advanced level of major/program.
- Identify location in catalog of university, college/school, and department/program requirements which the student must meet in addition to hours in the major, but do not restate these requirements.
- State course requirements in the major and any allied areas, giving number of hours and specific courses; specify electives or elective areas and give numbers of hours and courses in elective pools or categories; identify any other course requirements.
- State any other requirements (required GPA, internship, exit exam, project, thesis, etc.).
- Identify name and requirements for each concentration (if any).
- Specify whether a minor or other program component is allowed or required and provide details.
- State eight-semester plan requirements

For minors, state requirements in terms of hours, required courses, electives, etc.
For graduate program/units, include elements (as needed) parallel to those listed for undergraduate programs above.
For Law School program/units, prepare text consistent with current catalog style.

## For centers, prepare text consistent with current catalog style.

Computer Engineering Eight-Semester Degree Program<br>Fall Semester Year 1<br>4 MATH 2554 Calculus I<br>3 CHEM 1103 University Chemistry I<br>4 PHYS 2054 University Physics I<br>0 PHYS 2050L University Physics I Lab<br>1 GNEG 1111 Introduction to Engineering I<br>3 ENGL 1013 English Composition<br>15 Semester hours<br>Spring Semester Year 1<br>4 MATH 2564 Calculus II<br>4 Freshman Science elective*<br>3 Social science elective<br>1 GNEG 1121 Introduction to Engineering II<br>3 ENGL 1023 Composition II<br>15 Semester hours<br>Fall Semester Year 2<br>4 CSCE 2004 Programming Foundations I<br>0 CSCE 2000 Programming Foundations I Lab<br>4 CSCE 2114 Digital Design<br>0 CSCE 2110L Digital Design Lab<br>4 MATH 2574 Calculus III<br>3 MATH 2103 Discrete Math<br>15 Semester hours

Spring Semester Year 2
4 MATH 3404 Differential Equations
4 CSCE 2214 Computer Organization
4 CSCE 2014 Programming Foundations II
0 CSCE 2010 Programming Foundations II Lab
3 History/Government elective
3 Social science elective
18 Semester hours
Fall Semester Year 3
3 CSCE 3953 System Synthesis \& Modeling
3 Free elective
3 CSCE 3193 Programming Paradigms
4 Basic Science elective with lab
3 PHIL 3103 Ethics \& the Professions
16 Semester hours

Spring Semester Year 3
3 CSCE 3613 Operating Systems
3 CSCE 3513 Software Engineering
3 ELEG 3933 Circuits \& Electronics
3 CSCE elective
3 STAT 3013 Introduction to Probability and Statistics (INEG 3313 may be substituted)
15 Semester hours

Fall Semester Year 4
1 CSCE 4561 Capstone I
4 CSCE 4114 Embedded Systems
3 CSCE elective
3 CSCE elective
3 Humanities/social science elective
3 Free Elective
17 Semester hours

Spring Semester Year 4
3 CSCE 4963 Capstone II
3 CSCE 4213 Computer Architecture
3 CSCE elective
3 CSCE elective
3 Humanities/social science elective (3000+)
15 Semester hours

## 126 Total hours

* Choose between PHYS 2074 University Physics II or CHEM 1123/1121L University Chemistry II and lab
** If a student does not take CHEM 1123/1121L, - a lab will be required with the basic science elective


## SECTION VIII: Action Recorded by Registrar's Office

## PROGRAM INVENTORY/DARS

PGRM $\qquad$
DGRE $\qquad$
SUBJ $\qquad$ CIP $\qquad$ CRTS $\qquad$

OFFC\&CRTY VALID $\qquad$
REPORTING CODES
PROG. DEF. $\qquad$
PGCT $\qquad$ -

REQ. DEF.

Initials $\qquad$ Date $\qquad$

## Distribution

Notification to:
(1) College
(7) Treasurer
(6) Graduate School
(8) Undergraduate Program Committee

5/12/08

# University Course and Programs Committee 

## 23-Jan-09

## UNDERGRADUATE PROGRAM CHANGES

## TABLE ONE

## Graduate School

## Undergraduate Interdisciplinary Programs

MEPH-M - Minor in Microelectronics-Photonics - Attachment 1A

Proposal requests to no longer require ELEG 4203 and increase the elective hours by three as specified in Section V of Attachment 1A.

## TABLE TWO

## College of Engineering

Department of Computer Science and Computer Engineering

CENGBS - BS, Computer Engineering - Attachment 2A

Proposal requests to add laboratory sections to several courses, delete several courses and change offering times as specified in Section $V$ of Attachment 2A.

CSCEBS - BS, Computer Science - Attachment 2B

Proposal requests to add laboratory sections to several courses, delete several course and change offering times as specified in Section V of Attachment 2B.

Department of Electrical Engineering

ELEGBS - BS, Electrical Engineering - Attachment 2C

Proposal requests to delete four courses with associated laboratories and add three required courses. This change also reduces the number of hours needed to graduate from 127 to 125 as specified in Section V of Attachment 2C.

GRADUATE PROGRAM CHANGES

NONE

## ADD, CHANGE OR DELETE UNIT, PROGRAM REQUIREMENTS, OR ACADEMIC POLICIES

Complete this form consistent with the instructions in Academic Policy 1622.20. Use the form to add, change, or delete a program or unit or to change program policies. Proposed additions and changes must be consistent with Academic Policies 1100.40 and 1621.10 and any other policies which apply.

SECTION I: Approvals

| Department / Program Chair | Date Submitted |
| :--- | :--- |
| College Dean | Date |
| Honors College Dean | Date |
| Core Curriculum Committee | Date |
| University Course and Programs Committee | Date |


| Graduate Council Chair | Date |
| :--- | :---: |
| Faculty Senate Chair | Date |
| Provost | Date |
| Board of Trustees Approval/Notification Date |  |
| Arkansas Higher Education Coordinating Board Approval/Notification Date |  |

SECTION II: Profile Data - Required Information and Name Change Information
Academic Unit: $\quad \square$ Major/Field of Study $\quad \square$ Minor $\quad \square$ Other Unit $\quad \square$ Policy

Level: $\quad \square$ Undergraduate $\quad \square$ Graduate $\square$ Law
Program changes are effective with the next available catalog. See Academic Policy Series 1622.20
Current Name BS in Computer Science
College, School, Division ENGR
Department Code CSCE
Current Code (6 digit Alpha) CSCEBS
Proposed Code (6 digit Alpha)
Prior approval from the Office of the Registrar is required.
$\square$ Interdisciplinary Program
CIP Code 11.0101
Prior assignment from Office of Institutional Research is required.
Proposed Name $\qquad$
When a program name is changed, enrollment of current students reflects the new name.

## SECTION III: Add a New Program/Unit

For new program proposals, complete Sections II and VII and use as a cover sheet for a full program proposal as described in 'Criteria and Procedures for Preparing Proposals for New Programs in Arkansas.' ADHEhttp://www.arkansashighered.com/pdfs/BookAppNewProgramCriteriaandProceduresRevised2005.pdf.
$\square$ Program proposal uses courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here:

## SECTION IV: Eliminate an Existing Program/Unit

Code/Name $\qquad$ Effective Catalog Year $\qquad$
No new students admitted to program after Term: $\qquad$ Year: $\qquad$ _
Allow students in program to complete under this program until Term: $\qquad$ Year: $\qquad$

## SECTION V: Proposed Changes to an Existing Program or Program Policies

Insert here a statement of the exact changes to be made: CS Program changes:

1. Changes CSCE 2003/2001L to a four hour credit course with a zero credit lab (CSCE 2004).
2. Changes CSCE 2013/2011L to a four hour credit course with a zero credit lab (CSCE 2014) and moves data structures to the content of this course.
3. Changes CSCE 2113 Digital Techniques I to CSCE 2114 Digital Design, adding 1 hour credit for lab work, changing the title and updating the content of the course.
4. Adding 1 hour credit to the course CSCE 2213 Computer Organization - renumbering the course to CSCE 2214 and creating a zero credit lab.
5. Creating a new course CSCE 3193 Programming Paradigms.
6. Changes the level of CSCE 4513 Software Engineering to CSCE 3513.
7. Removes CSCE 3143 Data Structures from curriculum
8. Increases the number of hours required for the degree from 124 to 126
9. Removes CSCE 4313 Programming Languages from the curriculum, content moves to CSCE 3193.

Check if either of these boxes apply and provide the necessary signature:
$\square$ Program change proposal adds courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here:Program change proposal deletes courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here:

Check all the boxes that apply and complete the required sections of the form:
$\square$ Change of Name and Code (Complete only sections I, II, V and VII.)
ØChange Course Requirements: (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)
$\square$ Change Delivery Site/Method (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)

ØChange Total Hours (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)
$\square$ Change in Program Policies

## SECTION VI: Justification

Justify this change and state its likely effect on any other degree program (including those outside the school or college). Identify any program or program components (other than courses) to be eliminated if this program is implemented. (Program and course change forms must also be submitted for such related changes.)
The curriculum changes reflect issues raised by students and faculty participating in ABET reviews. These changes address the need to use the same language in the first two programming courses, the need for more breadth and depth in programming languages, and the need to cover IDEs and other software development tools.

## SECTION VII: Catalog Text and Format

In the box below, insert the current catalog text which is to be changed, with changes highlighted with the color yellow. Include all proposed changes identified in Section V. Only changes explicitly stated in Section $V$ will be considered for approval by the University Course and Programs Committee, the Graduate Council and the Faculty Senate. If you are proposing a new program, give proposed text with all of the elements listed below. If you are proposing modified text, include these elements as appropriate.

Include the following elements, in order, in the catalog text for proposed undergraduate program(s) or program changes:

- State complete major/program name
- Briefly define or describe the major/program or discipline.
- Identify typical career goals or paths for graduates. (Optional)
- State admission requirements (if any) for entry or entry into upper/advanced level of major/program.
- Identify location in catalog of university, college/school, and department/program requirements which the student must meet in addition to hours in the major, but do not restate these requirements.
- State course requirements in the major and any allied areas, giving number of hours and specific courses; specify electives or elective areas and give numbers of hours and courses in elective pools or categories; identify any other course requirements.
- State any other requirements (required GPA, internship, exit exam, project, thesis, etc.).
- Identify name and requirements for each concentration (if any).
- Specify whether a minor or other program component is allowed or required and provide details.
- State eight-semester plan requirements

For minors, state requirements in terms of hours, required courses, electives, etc.
For graduate program/units, include elements (as needed) parallel to those listed for undergraduate programs above.
For Law School program/units, prepare text consistent with current catalog style.
For centers, prepare text consistent with current catalog style.


Computer Science Eight-Semester Degree Program
Fall Semester Year 1
4 MATH 2554 Calculus I
4 PHYS 2054 University Physics I
0 PHYS 2050L University Physics I Lab
3 CHEM 1103 University Chemistry I
1 GNEG 1111 Introduction to Engineering I
3 ENGL 1013 English Composition
15 Semester hours
Spring Semester Year 1
4 MATH 2564 Calculus II
4 Freshman Science elective*
1 GNEG 1121 Intro to Engineering II
3 ENGL 1023 Composition II
3 Social science elective
15 Semester hours

Fall Semester Year 2
3 MATH 2103 Discrete Math
4 Basic Science elective with lab**
4 CSCE 2004 Programming Foundations I
0 CSCE 2000L Programming Foundations I Lab
4 CSCE 2114 Digital Design
3 History/Government elective
18 Semester hours

Spring Semester Year 2
3 MATH 3103 Combinatorics
4 CSCE 2014 Programming Foundations II
0 CSCE 2010L Programming Foundations II Lab
CSCE 2214, Computer Organization
3 Humanities elective
3 Social science elective
17 Semester hours

Fall Semester Year 3
3 CSCE 3193 Programming Paradigms
3 CSCE 3313 Algorithms
3 Free Elective
3 MATH 3083 Linear Algebra
3 PHIL 3103 Ethics \& the Professions
15 Semester hours
Spring Semester Year 3
3 CSCE 3613 Operating Systems
3 CSCE 3513 Software Engineering
3 Free elective
3 STAT 3013 Intro to Probability and Statistics (INEG 3313 can be substituted)
15 Semester hours

1 CSCE 4561 Capstone I
3 CSCE 4523 Database Management
3 CSCE elective
3 CSCE elective
3 Humanities/social sciences elective
16 Semester hours
Spring Semester Year 4
3 CSCE 4963 Capstone II
3 CSCE elective
3 CSCE 4323 Formal Languages
3 Free elective
3 Humanities/social sciences elective (3000+)
15 Semester hours
126 Total hours

* Choose between PHYS 2074 University Physics II or CHEM 1123/1121L University Chemistry II and lab
** If a student does not take CHEM 1121L, a lab will be required with the basic science elective


## SECTION VIII: Action Recorded by Registrar's Office

PROGRAM INVENTORY/DARS
$\qquad$ SUBJ $\qquad$
DGRE $\qquad$ PGCT $\qquad$

PROG. DEF. $\qquad$

CIP $\qquad$
OFFC\&CRTY VALID $\qquad$

Notification to: (1) College
(7) Treasurer
(2) Department (2) Department
$\begin{aligned} & \text { (8) Undergraduate Program Committee }\end{aligned}$

REQ. DEF.
$\qquad$ Date $\qquad$

## Distribution

# University Course and Programs Committee 

## 23-Jan-09

## UNDERGRADUATE PROGRAM CHANGES

## TABLE ONE

## Graduate School

## Undergraduate Interdisciplinary Programs

MEPH-M - Minor in Microelectronics-Photonics - Attachment 1A

Proposal requests to no longer require ELEG 4203 and increase the elective hours by three as specified in Section V of Attachment 1A.

## TABLE TWO

## College of Engineering

Department of Computer Science and Computer Engineering

CENGBS - BS, Computer Engineering - Attachment 2A

Proposal requests to add laboratory sections to several courses, delete several courses and change offering times as specified in Section $V$ of Attachment 2A.

CSCEBS - BS, Computer Science - Attachment 2B

Proposal requests to add laboratory sections to several courses, delete several course and change offering times as specified in Section V of Attachment 2B.

Department of Electrical Engineering

ELEGBS - BS, Electrical Engineering - Attachment 2C

Proposal requests to delete four courses with associated laboratories and add three required courses. This change also reduces the number of hours needed to graduate from 127 to 125 as specified in Section V of Attachment 2C.

GRADUATE PROGRAM CHANGES

NONE

## ADD, CHANGE OR DELETE PROGRAM OR UNIT

Complete this form consistent with the instructions in Academic Policy 1622.20. Use the form to add, change, or delete a program or unit. Proposed additions and changes must be consistent with Academic Policies 1100.40 and 1621.10 and any other policies which apply.

SECTION I: Approvals

| Department / Program Chair | Date Submitted |
| :--- | :--- |
| College Dean | Date |
| University Course and Programs Committee | Date |
| Graduate Council Chair | Date |


| Faculty Senate Chair | Date |
| :--- | :---: |
| Provost | Date |
| Board of Trustees Approval/Notification Date |  |
| Arkansas Higher Education Coordinating Board Approval/Notification Date |  |

SECTION II: Profile Data - Required Information and Name Change Information


Proposed Name $\qquad$
When a program name is changed, enrollment of current students reflects the new name.

## SECTION III: Add a New Program/Unit

For new program proposals, complete Sections II and VII and use as a cover sheet for a full program proposal as described in 'Criteria and Procedures for Preparing Proposals for New Programs in Arkansas.' ADHE [http://www.adhe.arknet.edu.aadept.html](http://www.adhe.arknet.edu.aadept.html).$\square$ Program proposal uses courses offered by another academic college. The signature of the dean of that academic college is required here: $\qquad$

## SECTION IV: Eliminate an Existing Program/Unit

Code/Name $\qquad$ Effective Catalog Year $\qquad$
No new students admitted to program after Term: $\qquad$ Year: $\qquad$
Allow students in program to complete under this program until Term: $\qquad$ Year: $\qquad$

## SECTION V: Proposed Changes to an Existing Program

Insert here a statement of the exact changes to be made: The proposed changes are the following:
(1) Remove ELEG 2903, ELEG 2900L, ELEG 2913, ELEG 2910L, CSCE 2003, CSCE 2001L, CSCE 2013, CSCE 2011L.
(2) Add ELEG 2904, CSCE 2004, CSCE 2014.
(3) Reduce the number of required hours from 127 to 125.
1622.20A p/vcaa $\quad$ C: $10 / 1 / 00$ Documents and Settings\dboddie\Local Settings\Temporary Internet Files\Content.Outlook\2DCB6ASO\UCPC2C January 09 - ELEGBS - Attachment2C.doc

Check if either of these boxes apply and provide the necessary signature:
$\square$ Program change proposal adds courses offered by another academic college. The signature of the dean of that academic college is required here: $\qquad$

Program change proposal deletes courses offered by another academic college. The signature of the dean of that academic college is required here: $\qquad$
Check all the boxes that apply and complete the required sections of the form:
$\square$ Change of Name and Code (Complete only sections I, II, V and VII.)
ØChange Course Requirements: (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)
$\square$ Change Delivery Site/Method (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)

【Change Total Hours (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)

## SECTION VI: Justification

Justify this change and state its likely effect on any other degree program (including those outside the school or college). Identify any program or program components (other than courses) to be eliminated if this program is implemented. (Program and course change forms must also be submitted for such related changes.)
The EE program changes are required by the following events:
(1) ELEG and CSCE faculties decided that the curriculum in the Digital Design area needed to be upgraded to better serve our students. As a result, ELEG 2903 was made into ELEG 2904, to reflect the workload of the course and the material in ELEG 2913 was modified to include material more relevant with an industrial experience and moved into a ELEG Technical Elective (i.e., ELEG 4914, a new course).
(2) The CSCE department combined CSCE 2001L and CSCE 2003 into one course; namely, CSCE 2004.
(3) The CSCE department combined CSCE 2011L and CSCE 2013 into one course (namely, CSCE 2014) and changed its contents.
SECTION VII: Catalog Text and Format
Insert the current catalog text, with proposed changes identified in Section V inserted and tracked in Microsoft Word. Be sure that all proposed changes are inserted and tracked. Only changes explicitly stated in Section $V$ will be considered for approval by the University Course and Programs Committee, the Graduate Council and the Faculty Senate.

Include the following elements, in order, in the catalog text for proposed undergraduate program(s) or program changes:

- State complete major/program name
- Briefly define or describe the major/program or discipline.
- Identify typical career goals or paths for graduates. (Optional)
- State admission requirements (if any) for entry or entry into upper/advanced level of major/program.
- Identify location in catalog of university, college/school, and department/program requirements which the student must meet in addition to hours in the major, but do not restate these requirements.
- State course requirements in the major and any allied areas, giving number of hours and specific courses; specify electives or elective areas and give numbers of hours and courses in elective pools or categories; identify any other course requirements.
- State any other requirements (required GPA, internship, exit exam, project, thesis, etc.).
- Identify name and requirements for each concentration (if any).
- Specify whether a minor or other program component is allowed or required and provide details.

For minors, state requirements in terms of hours, required courses, electives, etc.
For graduate program/units, include elements (as needed) parallel to those listed for undergraduate programs above.
For Law School program/units, prepare text consistent with current catalog style.
For centers, prepare text consistent with current catalog style.

## CURRENT CATALOG TEXT:

## ELECTRICAL ENGINEERING CURRICULUM

2008-2009
1622.20 A p/vcaa $\quad$ C: $10 / 1 / 00$ Documents and Settings\dboddie\Local Settings\Temporary Internet

Files\Content.Outlook\2DCB6ASO\UCPC2C January 09 - ELEGBS - Attachment2C.doc



TOTAL: 127 semester hours
Notes:
(1) Freshman Science Elective - CHEM 1123/1121L - University Chemistry II or PHYS 2074 - University Physics II
(2) Approved Humanities/Social Science course
(3) Students who have earned 45 hours must take the Rising Junior Exam
(4) PHYS 2074 if student took CHEM 1123/1121L in Freshman Year. Otherwise, CHEM1123/1121L or approved 4 hours in Science
(5) Students are required to take ENGL 2003 or gain exemption

## PROPOSED CATALOG TEXT:

## ELECTRICAL ENGINEERING CURRICULUM <br> 2009-2010

Freshman Year

| 1 | GNEG 1111 | Intro to Engineering I | 1 | GNEG 1121 | Introduction to Engineering II |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 4 | MATH 2554 | Calculus I | 4 | MATH 2564 | Calculus II |
| 3 | CHEM 1103 | University Chemistry I | 4 | Freshman Science Elective (1) |  |
| 4 | PHYS | 2054 | University Physics I | 3 | Humanities/Social Science Elective |


| 3 | ENGL 1013 | Composition I | 3 | ENGL 1023 | Technical Composition II |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 15 | semester hours |  | 15 | semester hours |  |
| Sophomore Year (2) |  |  |  |  |  |
| 3 | ELEG 2103 | Electric Circuits I | 3 | ELEG 2113 | Electric Circuits II |
| 1 | ELEG 2101L | Electric Circuits I Lab | 1 | ELEG 2111L | Electric Circuits II Lab |
| 4 | ELEG 2904 | Digital Design I | 4 | CSCE 2004 | Programming Foundations I |
| 4 | MATH 2574 | Calculus III | 4 | MATH 3404 | Differential Equations |
| 4 | XXXX XXX4 | Sophomore Science Elective4 | 3 | History Gover | ment Requirement |
| 16 | semester hours |  | 15 | semester hours |  |
| Junior Year (4) |  |  |  |  |  |
| 3 | ELEG 3123 | Systems and Signals | 3 | ELEG 3223 | Electronics II |
| 1 | ELEG 3121L | System and Signal Lab | 1 | ELEG 3221L | Electronics II Lab |
| 3 | ELEG 3213 | Electronics I | 3 | ELEG 3303 | Energy Conversion |
| 1 | ELEG 3211L | Electronics I Lab | 1 | ELEG 3301L | Energy Conversion Lab |
| 3 | ELEG 3923 | Microprocessor System Design | 3 | ELEG 3703 | Electromagnetics |
| 0 | ELEG 3920L | Microprocessor Sys Design Lab | 3 | Humanities/So | ial Science elective |
| 4 | CSCE 2014 | Programming Foundations II | 3 | Math/Science E | lective |
| 0 | ENGL 2003 | Advanced Composition |  |  |  |
| 15 | semester hours |  | 14 | semester hours |  |
| Senior Year |  |  |  |  |  |
| 1 | ELEG 4061 | EE Design I | 1 | ELEG 4071 | EE Design II |
| 3 | ELEG 4143 | Stochastic Signal Processing | 6 | Electrical Eng | Technical Elective |
| 3 | Electrical Engin | eering Technical Elective | 3 | Technical Elec |  |
| 3 | Engineering Sci | ence Elective | 3 | Upper level hu | nanities/social science elective |
| 3 | Technical Elect |  | 3 | Humanities/So | ial Science Elective |
| 3 | Upper-level Hu | manities-Social Science Elective |  |  |  |
| 16 | semester hours |  | 16 | semester hours |  |

TOTAL: 125 semester hours

## Notes:

(1) Freshman Science Elective - CHEM 1123/1121L - University Chemistry II or PHYS 2074 - University Physics II
(2) Students who have earned 45 hours must take the Rising Junior Exam
(3) PHYS 2074 if student took CHEM 1123/1121L in Freshman Year. Otherwise, CHEM1123/1121L or approved 4 hours in Science
(4) Students are required to take ENGL 2003 or gain exemption

## SECTION VIII: Action Recorded by Registrar's Office

PROGRAM INVENTORY/DARS

PGRM $\qquad$
DGRE $\qquad$

PROG. DEF. $\qquad$

SUBJ $\qquad$

PGCT $\qquad$

CIP $\qquad$
OFFC\&CRTY VALID $\qquad$

REQ. DEF.
Initials $\qquad$ Date $\qquad$
Distribution

Notification to:
(1) College
(1) College
(7) Treasurer
(2) Department
$\begin{array}{ll}\text { (2) Department } & \text { (3) Admissions } \\ \text { (8) Undergraduate Program Committee }\end{array}$

