#### UNIVERSITY COURSE AND PROGRAMS COMMITTEE

#### **AGENDA**

January 23, 2009 2:30 PM Upchurch Conference Room

- Approval of minutes for November 21, 2008. Meeting minutes can be viewed at <a href="http://www.uark.edu/depts/gradinfo/dean/courseprog/minutes/index.html">http://www.uark.edu/depts/gradinfo/dean/courseprog/minutes/index.html</a>. December 19, 2008 meeting was conducted by e-mail for course changes only.
- Consent Agenda (Course change proposals can be reviewed at https://www2.uark.edu/web-apps/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 (<u>Table 1</u>, <u>Attachment 1A</u>).
  - Proposed undergraduate program change for the College of Engineering Department of Computer Science and Computer Engineering – CENGBS – BS, Computer Engineering (<u>Table 2</u>, <u>Attachment 2A</u>).
  - 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 (<u>Table 2</u>, <u>Attachment 2C</u>).
- 5. Other Items for Consideration: Donna Graham Notification to programs requiring graduate courses taught on an irregular basis in other colleges.

TABLE A UCPC

#### **Undergraduate Courses** January 23, 2009 COLL DEPARTMENT DEPT CRSE CRSE CRSE TITLE **CREDIT ACTION** CREDIT EFFECTIVE NAME ALPHA NUM **LEVEL HOURS** DATE U **ARCH** Architecture **ARCH** ARCH 1013 Diversity and Design ANC 3 Fall 2009 ARSC Mathematical Sciences MASC MATH College Algebra Enhanced U ANC 4 Fall 2009 1204 **ENGR** Computer Science & Computer Engineering CSCE CSCE 2123 Digital Techniques II U ELC 3 Fall 2009 **ENGR ENGD GNEG** 2801 Cooperative Education I U ELC 1 Fall 2009 **Engineering Dean** U **ENGR Engineering Dean ENGD GNEG** 2811 Cooperative Education II ELC 1 Fall 2009 U **ENGR Engineering Dean ENGD GNEG** 3801 Cooperative Education III ELC 1 Fall 2009 **ENGR** U **Engineering Dean ENGD GNEG** 3811 Cooperative Education IV ELC 1 Fall 2009 **ENGR Engineering Dean ENGD GNEG** 4801 Cooperative Education V U ELC 1 Fall 2009 U **ENGR** Engineering Dean **ENGD GNEG** 4811 Cooperative Education VI ELC 1 Fall 2009 U **IDUG** Interdisciplinary INTD SPAC 4011H to Honor Colloquium CHN, CCH, 1 to 3 Fall 2009

4013

OTH

TABLE B UCPC

## Graduate Courses January 23, 2009

| COLL | DEPARTMENT<br>NAME                      | DEPT | CRSE<br>ALPHA | CRSE<br>NUM | CRSE TITLE                              | CREDIT<br>LEVEL | ACTION | CREDIT<br>HOURS | EFFECTIVE<br>DATE |
|------|---|------|---------------|-------------|---|-----------------|--------|-----------------|-------------------|
| AFLS | Poultry Science                         | POSC | POSC          | 5752L       | Advanced Poultry Diseases Laboratory    | G               | ELC    | 2               | Fall 2009         |
| ENGR | Computer Science & Computer Engineering | CSCE | CSCE          | 5253        | Integrated Circuit Design Laboratory I  | G               | ANC    | 3               | Fall 2009         |
| ENGR | Computer Science & Computer Engineering | CSCE | CSCE          | 5363        | Integrated Circuit Design Laboratory II | G               | ANC    | 3               | Fall 2009         |
| ENGR | Engineering Dean                        | ENGD | GNEG          | 5801        | Cooperative Education to Internship     | G               | СТ     | 1               | Fall 2009         |
| ENGR | Engineering Dean                        | ENGD | GNEG          | 5811        | Cooperative Education                   | G               | ANC    | 1               | Fall 2009         |
| ENGR | Engineering Dean                        | ENGD | GNEG          | 590V        | Special Topics                          | G               | ANC    | variable        | Fall 2009         |
| GRAD | Graduate Dean                           | GRSD | MEPH          | 5733L       | Fabrication at the Nanoscale            | g               | ANC    | 3               | Fall 2009         |

Table C UCPC

Dual Courses January 23, 2009

| COLL | DEPARTMENT<br>NAME                      | DEPT | CRSE<br>ALPHA | CRSE<br>NUM | CRSE TITLE                         | CREDIT<br>LEVEL | ACTION | CREDIT<br>HOURS | EFFECTIVE<br>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         |

## **ACTION**

ANC= ADD NEW COURSE ELC= ELIMINATE COURSE CT= CHANGE TITLE

CD= CHANGE DESCRIPTION

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 IN= INACTIVATE COURSE

TABLE A UCPC

#### **Undergraduate Courses** January 23, 2009 COLL DEPARTMENT DEPT CRSE CRSE CRSE TITLE **CREDIT ACTION** CREDIT EFFECTIVE NAME ALPHA NUM **LEVEL HOURS** DATE U **ARCH** Architecture **ARCH** ARCH 1013 Diversity and Design ANC 3 Fall 2009 **ARSC** Mathematical Sciences MASC MATH College Algebra Enhanced U ANC 4 Fall 2009 1204 **ENGR** Computer Science & Computer Engineering CSCE CSCE 2123 Digital Techniques II U ELC 3 Fall 2009 **ENGR ENGD GNEG** 2801 Cooperative Education I U ELC 1 Fall 2009 **Engineering Dean** U **ENGR Engineering Dean ENGD GNEG** 2811 Cooperative Education II ELC 1 Fall 2009 U **ENGR Engineering Dean ENGD GNEG** 3801 Cooperative Education III ELC 1 Fall 2009 **ENGR** U **Engineering Dean ENGD GNEG** 3811 Cooperative Education IV ELC 1 Fall 2009 **ENGR Engineering Dean ENGD GNEG** 4801 Cooperative Education V U ELC 1 Fall 2009 U **ENGR** Engineering Dean **ENGD GNEG** 4811 Cooperative Education VI ELC 1 Fall 2009 U **IDUG** Interdisciplinary INTD SPAC 4011H to Honor Colloquium CHN, CCH, 1 to 3 Fall 2009

4013

OTH

TABLE B UCPC

## Graduate Courses January 23, 2009

| COLL | DEPARTMENT<br>NAME                      | DEPT | CRSE<br>ALPHA | CRSE<br>NUM | CRSE TITLE                              | CREDIT<br>LEVEL | ACTION | CREDIT<br>HOURS | EFFECTIVE<br>DATE |
|------|---|------|---------------|-------------|---|-----------------|--------|-----------------|-------------------|
| AFLS | Poultry Science                         | POSC | POSC          | 5752L       | Advanced Poultry Diseases Laboratory    | G               | ELC    | 2               | Fall 2009         |
| ENGR | Computer Science & Computer Engineering | CSCE | CSCE          | 5253        | Integrated Circuit Design Laboratory I  | G               | ANC    | 3               | Fall 2009         |
| ENGR | Computer Science & Computer Engineering | CSCE | CSCE          | 5363        | Integrated Circuit Design Laboratory II | G               | ANC    | 3               | Fall 2009         |
| ENGR | Engineering Dean                        | ENGD | GNEG          | 5801        | Cooperative Education to Internship     | G               | СТ     | 1               | Fall 2009         |
| ENGR | Engineering Dean                        | ENGD | GNEG          | 5811        | Cooperative Education                   | G               | ANC    | 1               | Fall 2009         |
| ENGR | Engineering Dean                        | ENGD | GNEG          | 590V        | Special Topics                          | G               | ANC    | variable        | Fall 2009         |
| GRAD | Graduate Dean                           | GRSD | MEPH          | 5733L       | Fabrication at the Nanoscale            | g               | ANC    | 3               | Fall 2009         |

Table C UCPC

Dual Courses January 23, 2009

| COLL | DEPARTMENT<br>NAME                      | DEPT | CRSE<br>ALPHA | CRSE<br>NUM | CRSE TITLE                         | CREDIT<br>LEVEL | ACTION | CREDIT<br>HOURS | EFFECTIVE<br>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         |

## **ACTION**

ANC= ADD NEW COURSE ELC= ELIMINATE COURSE CT= CHANGE TITLE

CD= CHANGE DESCRIPTION

CHN= CHANGE COURSE NUMBER FROM \_\_\_TO\_\_\_

CCH= CHANGE CREDIT HOURS FROM \_\_\_TO\_\_\_

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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 IN= INACTIVATE COURSE

# University Course and Programs Committee 23-Jan-09

#### **UNDERGRADUATE PROGRAM CHANGES**

#### **TABLE ONE**

#### **Graduate School**

<u>Undergraduate Interdisciplinary Programs</u>

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.

| Department / Program Chair                     | Date Sub                             | mitted                    | Graduate Council Chair  | Date                             |
|--|--------------------------------------|---------------------------|---|----------------------------------|
| College Dean                                   | Date                                 |                           | Faculty Senate Chair  | Date                             |
| Honors College Dean                            | Date                                 |                           | Provost   | Date                             |
| Core Curriculum Committee                      | Date                                 |                           | Board of Trustees Approval/Notifica   | tion Date                        |
| University Course and Progr                    | ams Committee Date                   |                           | Arkansas Higher Education Coordinating  | Board Approval/Notification Date |
| SECTION II: Profile                            | Data - Required Inform               | nation and                | Name Change Information   |                                  |
| Academic Unit:                                 | ☐ Major/Field of Study               | Minor Minor               | Other Unit  | Policy                           |
| Level:   | □ Undergraduate     □                | ☐ Gradua                  | te  |                                  |
| Program changes are effect                     | ctive with the next available        | e catalog. Se             | e Academic Policy Series 1622.20  |                                  |
| Current Name                                   | Minor, Microelectronics              | -Photonics                |   |                                  |
| College, School, Division                      | GRAD                                 | Departmen                 | t Code MEPH   |                                  |
| Current Code (6 digit Alp                      | ha) MEPH-M                           |                           | Code (6 digit Alpha) I from the Office of the Registrar is required.                      |                                  |
| ✓ Interdisciplinary Progra                     | am                                   | CIP Code<br>Prior assignm | 30.9999<br>ent from Office of Institutional Research is red                               | quired.                          |
| Proposed Name<br>When a program name is change | ed, enrollment of current students r | reflects the new          | name.   |                                  |
| SECTION III: Add a                             | New Program/Unit                     |                           |   |                                  |
| Criteria and Procedures for                    | or Preparing Proposals for N         | New Program               | use as a cover sheet for a full programs in Arkansas.' ADHE  ProgramCriteriaandProcedures |                                  |
|  |                                      |                           | ademic college, and that college dean uired here:   |                                  |
| SECTION IV: Elimin                             | ate an Existing Progran              | n/Unit                    |   |                                  |
| Code/Name                                      | Effective Catalog Year               |                           |   |                                  |
| No new students admitted                       | to program after Term:               | Year:                     |   |                                  |

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

Insert here a statement of the exact changes to be made: <u>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.</u>

| 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:   |
| 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:   |
| ☐ 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.)   |
| 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.)  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 V                    | III: Action Record                          | ed by Registr               | ar's Office                |                          |                     |  |
|------------------------------|---|-----------------------------|----------------------------|--------------------------|---------------------|--|
| PROGRAM IN                   | VENTORY/DARS                                |                             |                            |                          |                     |  |
| PGRM                         | SUBJ_                                       |                             | CIP                        | CRTS                     |                     |  |
| DGRE                         | PGCT_                                       |                             | OFFC&CRTY VAL              | ID                       |                     |  |
| REPORTING C                  | CODES                                       |                             |                            |                          |                     |  |
| PROG. DEF                    |   |                             | REQ. DEF.                  | Initials                 | Date                |  |
|                              |   |                             |                            |                          | <u></u>             |  |
| Distribution                 |   | _                           |                            |                          |                     |  |
| Notification to:             |   |                             |                            |                          |                     |  |
| (1) College<br>(7) Treasurer | (2) Department<br>(8) Undergraduate Program | (3) Admissions<br>Committee | (4) Institutional Research | (5) Continuing Education | (6) Graduate School |  |

5/12/08

# University Course and Programs Committee 23-Jan-09

#### **UNDERGRADUATE PROGRAM CHANGES**

#### **TABLE ONE**

#### **Graduate School**

<u>Undergraduate Interdisciplinary Programs</u>

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

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#### **TABLE TWO**

## **College of Engineering**

Department of Computer Science and Computer Engineering

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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: Approv   | vals  |  |   |                    |  |  |
|---|---|--|---|--------------------|--|--|
| Department / Program Chair  | Date Subr   | nitted   | Graduate Council Chair  | Date               |  |  |
| College Dean  | Date  |  | Faculty Senate Chair  | Date               |  |  |
| Honors College Dean   | Date  |  | Provost   | Date               |  |  |
| Core Curriculum Committee   | Date  |  | Board of Trustees Approval/Notification Date  |                    |  |  |
| University Course and Progra  | ams Committee Date                                    |  | Arkansas Higher Education Coordinating Board Approval/                                    | /Notification Date |  |  |
| SECTION II: Profile   | Data - Required Inform                                | ation and <b>N</b>   | Name Change Information   |                    |  |  |
| Academic Unit:  | Major/Field of Study                                  | Minor  | Other Unit Policy   |                    |  |  |
| Level:  | □ Undergraduate     □                                 | Graduate   | e 🔲 Law   |                    |  |  |
| Program changes are effect  | ctive with the next available                         | catalog. See   | Academic Policy Series 1622.20  |                    |  |  |
| Current Name  | BS in Computer Engineer                               | ing  |   |                    |  |  |
| College, School, Division   | <u>ENGR</u>   | Department   | Code <u>CSCE</u>  |                    |  |  |
| Current Code (6 digit Alpha) <b>CENGBS</b>  |   | Proposed Code (6 digit Alpha) Prior approval from the Office of the Registrar is required. |   |                    |  |  |
| ☐Interdisciplinary Progra   | am  | CIP Code 14.0901 Prior assignment from Office of Institutional Research is required.       |   |                    |  |  |
| Proposed Name When a program name is change   | d, enrollment of current students re                  | flects the new na  | ame.  |                    |  |  |
| SECTION III: Add a  | New Program/Unit                                      |  |   |                    |  |  |
| 'Criteria and Procedures for <a href="http://www.arkansash">http://www.arkansash</a> Program prop | or Preparing Proposals for N<br>ighered.com/pdfs/Book | ew Programs  AppNewPrograms  another acad  | rogramCriteriaandProceduresRevised200 lemic college, and that college dean's office has b | <u>5.pdf</u> .     |  |  |
| SECTION IV: Elimin  | ate an Existing Program                               | /Unit  |   |                    |  |  |
| Code/Name   | Effective Catalog Year                                |  |   |                    |  |  |
| No new students admitted  | to program after Term:  1 to complete under this prog | Year:  |   |                    |  |  |

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

Insert here a statement of the exact changes to be made: <u>1. Changes CSCE 2003/2001L Programming Foundations I to a four hour credit course with a zero credit lab (CSCE 2004).</u>

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:

|                   | gram change proposal adds courses offered by another academic college, and that college dean's office has been ified. The signature of the dean of that academic college is required here:    |
|-------------------|---|
|                   | gram change proposal deletes courses offered by another academic college, and that college dean's office has been ified. The signature of the dean of that academic college is required here: |
| Check all the box | xes that apply and complete the required sections of the form:  |
|                   | age of Name and Code (Complete only sections I, II, V and VII.)   |
| ⊠Chan<br>IV.)     | age Course Requirements: (Complete all sections of the form except "Proposed Name" in II, section III, and section  |
|                   | age Delivery Site/Method (Complete all sections of the form except "Proposed Name" in II, section III, and section  |
| Chan              | age 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.)

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.

3 Free Elective

17 Semester hours

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

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 VI                                       | III: Action Recorded by Registra                                  | ar's Office                |                          |                     |
|--|---|----------------------------|--------------------------|---------------------|
| PROGRAM INV                                      | ENTORY/DARS   |                            |                          |                     |
| PGRM   | SUBJ  | CIP                        | CRTS                     |                     |
| DGRE   | PGCT  | OFFC&CRTY VAI              |                          |                     |
| REPORTING CO                                     | DDES  |                            |                          |                     |
| PROG. DEF  | <u> </u>  | REQ. DEF.                  | Initials                 | Date                |
|  |   |                            |                          |                     |
| Distribution                                     |   |                            |                          |                     |
| Notification to:<br>(1) College<br>(7) Treasurer | (2) Department (3) Admissions (8) Undergraduate Program Committee | (4) Institutional Research | (5) Continuing Education | (6) Graduate School |

5/12/08

# University Course and Programs Committee 23-Jan-09

#### **UNDERGRADUATE PROGRAM CHANGES**

#### **TABLE ONE**

#### **Graduate School**

<u>Undergraduate Interdisciplinary Programs</u>

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: Appro  | vals  |  |   |                     |  |  |
|---|---|--|---|---------------------|--|--|
| Department / Program Chair  | Date Subr   | nitted   | Graduate Council Chair  | Date                |  |  |
| College Dean  | Date  |  | Faculty Senate Chair  | Date                |  |  |
| Honors College Dean   | Date  |  | Provost   | Date                |  |  |
| Core Curriculum Committee   | Date  |  | Board of Trustees Approval/Notification Date  |                     |  |  |
| University Course and Progr   | ams Committee Date                                      |  | Arkansas Higher Education Coordinating Board Approva                                    | l/Notification Date |  |  |
| SECTION II: Profile   | Data - Required Inform                                  | ation and I  | Name Change Information   |                     |  |  |
| Academic Unit:  | Major/Field of Study                                    | Minor  | Other Unit Policy   |                     |  |  |
| Level:  | □ Undergraduate     □                                   | Graduate   | e 🔲 Law   |                     |  |  |
| Program changes are effect  | ctive with the next available                           | catalog. See   | Academic Policy Series 1622.20  |                     |  |  |
| Current Name  | BS in Computer Science                                  |  |   |                     |  |  |
| College, School, Division   | <b>ENGR</b>   | Department   | Code <u>CSCE</u>  |                     |  |  |
| Current Code (6 digit Alpha) CSCEBS   |   |  | ode (6 digit Alpha) from the Office of the Registrar is required.                       |                     |  |  |
| ☐Interdisciplinary Progra   | am  | CIP Code 11.0101 Prior assignment from Office of Institutional Research is required. |   |                     |  |  |
| Proposed Name When a program name is change   | ed, enrollment of current students re                   | flects the new n   | ame.  |                     |  |  |
| SECTION III: Add a  | New Program/Unit  |  |   |                     |  |  |
| 'Criteria and Procedures for <a href="http://www.arkansash">http://www.arkansash</a> Program prop | or Preparing Proposals for N<br>highered.com/pdfs/Book  | ew Programs  AppNewP  another acad   | rogramCriteriaandProceduresRevised200 demic college, and that college dean's office has | <u>)5.pdf</u> .     |  |  |
|   |   |  |   |                     |  |  |
|   | ate an Existing Program                                 |  |   |                     |  |  |
| Code/Name   | Effective Catalog Year                                  |  |   |                     |  |  |
|   | to program after Term:<br>n to complete under this prog |  |   |                     |  |  |

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

Insert here a statement of the exact changes to be made: <u>CS Program changes:</u>

- 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.
- <u>4. Adding 1 hour credit to the course CSCE 2213 Computer Organization renumbering the course to CSCE 2214 and creating a zero credit lab.</u>
- 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:

| 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:  |
| 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.)  |
| 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.)   |
| 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

4 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)

3 Humanities/Social science elective

#### 15 Semester hours

Fall Semester Year 4

| 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  |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  |
| ** If a student does not take CHEM 1121L, a lab will be required with the basic science elective  |  |  |  |  |  |  |  |  |  |
| ** 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   |  |  |  |  |  |  |  |  |  |
| ** 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   PGRM SUBJ CIP CRTS |  |  |  |  |  |  |  |  |  |
| ** 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                         |  |  |  |  |  |  |  |  |  |
| ** 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   PGRM SUBJ CIP CRTS |  |  |  |  |  |  |  |  |  |
| ** 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   |  |  |  |  |  |  |  |  |  |
| ** 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   |  |  |  |  |  |  |  |  |  |
| ** 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   |  |  |  |  |  |  |  |  |  |
| ** 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   |  |  |  |  |  |  |  |  |  |
| ** 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   |  |  |  |  |  |  |  |  |  |
| ** 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   |  |  |  |  |  |  |  |  |  |
| ** 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   |  |  |  |  |  |  |  |  |  |
| ** 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   |  |  |  |  |  |  |  |  |  |

# University Course and Programs Committee 23-Jan-09

#### **UNDERGRADUATE PROGRAM CHANGES**

#### **TABLE ONE**

#### **Graduate School**

<u>Undergraduate Interdisciplinary Programs</u>

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

1622.20A

p/vcaa

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## 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: Appro                              | ovals   |   |   |                            |                |  |
|---|---|---|---|----------------------------|----------------|--|
| Department / Program Chair                    | Date Sub  | mitted  | Faculty Senate Chair  |                            | Date           |  |
| College Dean Date                             |   |   | Provost   |                            | Date           |  |
| University Course and Progr                   | rams Committee Date   |   | Board of Trustees Approval/Notification Date                      |                            |                |  |
| Graduate Council Chair                        | Date  |   | Arkansas Higher Education Coordinating Board Approval/Notificatio |                            |                |  |
| SECTION II: Profile                           | e Data - Required Inforn  | nation and N  | ame Change Informati  | on                         |                |  |
| Academic Unit:                                | Major/Field of Study  | Minor   | Other Unit  |                            |                |  |
| Level:  | ☑ Undergraduate   | Graduate  | Law Effec   | tive Catalog Year 2008     |                |  |
| Current Name                                  | Bachelor of Science in El   | ectrical Engin  | eering  |                            |                |  |
| College, School, Division                     | n <u>ENGR</u>   | Department C  | Code <u><b>ELEG</b></u>   |                            |                |  |
| Current Code (6 digit Alp                     | oha) <u>ELEGBS</u>  | Proposed Code (6 digit Alpha) Prior approval from the Office of the Registrar is required.  |   |                            |                |  |
| ☐Interdisciplinary Progr                      | ram   | CIP Code <u>14.1001</u> Prior assignment from Office of Institutional Research is required. |   |                            |                |  |
| Proposed Name When a program name is chang    | ed, enrollment of current students r  | reflects the new nar  | ne.   |                            |                |  |
| SECTION III: Add a                            | New Program/Unit  |   |   |                            |                |  |
|   | posals, complete Sections II<br>For Preparing Proposals for N                                   |   |   |                            |                |  |
|   | posal uses courses offered by   |   | mic college. The signature  | of the dean of that academ | nic college is |  |
| SECTION IV: Elimin                            | nate an Existing Progran  | n/Unit  |   |                            |                |  |
| Code/Name                                     | Effective Catalog Year  |   |   |                            |                |  |
|   | d to program after Term:<br>m to complete under this pro  |   | m: Year:  |                            |                |  |
| SECTION V: Propos                             | sed Changes to an Exist   | ing Program   |   |                            |                |  |
| (1) Remove ELEG 2903<br>(2) Add ELEG 2904, CS | of the exact changes to be a LEG 2900L, ELEG 2915 CE 2004, CSCE 2014. of required hours from 12 | 3, ELEG 2910  |   |                            | <u>2011L.</u>  |  |

C:\Documents and Settings\dboddie\Local Settings\Temporary Internet

| check it clines of these boxes apply and provide the necessary signature.   |
|---|
| Program change proposal adds courses offered by another academic college. The signature of the dean of that academic college is required here:  |
| Program change proposal deletes courses offered by another academic college. 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:  |
| <ul> <li>□ Change of Name and Code (Complete only sections I, II, V and VII.)</li> <li>□ Change Course Requirements: (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)</li> <li>□ Change Delivery Site/Method (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)</li> <li>□ Change Total Hours (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)</li> </ul> |

### **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:

Check if either of these boxes apply and provide the necessary signature.

(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

 $1622.20 A \quad p/vcaa \quad 10/1/00 \qquad \qquad C:\Documents \ and \ Settings\dboddie\Local \ Settings\Temporary \ Internet \ Files\Content.Outlook\2DCB6ASO\UCPC2C\ January \ 09 - ELEGBS - Attachment2C.doc$ 

| Freshman Year   |                   |                                       |    |                   |                                       |
|-----------------|-------------------|---------------------------------------|----|-------------------|---------------------------------------|
| 1               | <b>GNEG 1111</b>  | Intro to Engineering I                | 1  | <b>GNEG 1121</b>  | <b>Introduction to Engineering II</b> |
| 4               | MATH 2554         | Calculus I                            | 4  | MATH 2564         | Calculus II                           |
| 3               | CHEM 1103         | University Chemistry I                | 4  | XXXX XXX4         | Freshman Science Elective (1)         |
| 4               | PHYS 2054         | University Physics I                  | 3  | XXXX XXX3         | <b>University Core Elective (2)</b>   |
| 3               | ENGL 1013         | Composition I                         | 3  | ENGL 1023         | Technical Composition II              |
| 15              | semester hours    |                                       | 15 | semester hours    |                                       |
|                 |                   |                                       |    |                   |                                       |
|                 |                   |                                       |    |                   |                                       |
| Sophomore Yea   | ır (3)            |                                       |    |                   |                                       |
| 3               | <b>ELEG 2103</b>  | Electric Circuits I                   | 3  | <b>CSCE 2003</b>  | Programming Foundations I             |
| 1               | <b>ELEG 2101L</b> | Electric Circuits I Lab               | 1  | CSCE 2001L        | Programming Foundations I Lab         |
| 3               | ELEG 2903         | Digital Design I                      | 3  | <b>ELEG 2113</b>  | Electric Circuits II                  |
| 0               | <b>ELEG 2900L</b> | Digital Design I Lab                  | 1  | ELEG 2111L        | Electric Circuits II Lab              |
| 4               | MATH 2574         | Calculus III                          | 3  | ELEG 2913         | Digital Design II                     |
| 4               | XXXX XXX4         | <b>Sophomore Science Elective (4)</b> | 0  | <b>ELEG 2910L</b> | Digital Design II Lab                 |
|                 |                   | <del>-</del>                          | 4  | MATH 3404         | Differential Equations                |
|                 |                   |                                       | 3  | History Govern    | nment Requirement                     |
| 15              | semester hours    |                                       | 18 | semester hours    |                                       |
|                 |                   |                                       |    |                   | •                                     |
| Junior Year (5) |                   |                                       |    |                   |                                       |
| 3               | <b>ELEG 3123</b>  | System and Signal Analysis            | 3  | <b>ELEG 3223</b>  | Electronics II                        |
| 1               | ELEG 3121L        |                                       | 1  | ELEG 3221L        |                                       |
| 3               | ELEG 3213         | Electronics I                         | 3  | ELEG 3303         | Energy Conversion                     |
| 1               | ELEG 3211L        | Electronics I Lab                     | 1  | ELEG 3301L        |                                       |
| 3               | ELEG 3923         | Microprocessor System Design          | 3  | ELEG 3703         | Electromagnetics                      |
| 0               | <b>ELEG 3920L</b> | Microprocessor Sys Design Lab         | 3  |                   | cial Science elective                 |
| 3               | CSCE 2013         | Programming Foundations II            | 0  | ENGL 2003         | Advanced Composition                  |
| 1               | CSCE 2011L        |                                       |    |                   |                                       |
| 3               | Math/Science E    |                                       |    |                   |                                       |
| 18              | semester hours    |                                       | 14 | semester hours    |                                       |
|                 |                   |                                       |    |                   | •                                     |
| Senior Year     |                   |                                       |    |                   |                                       |
| 1               | <b>ELEG 4061</b>  | EE Design I                           | 1  | <b>ELEG 4071</b>  | EE Design II                          |
| 3               | ELEG 4143         | Stochastic Signal Processing          | 6  |                   | Technical Elective                    |
| 3               |                   | neering Technical Elective            | 3  | Technical Elec    |                                       |
| 3               | Engineering Sc    |                                       | 3  |                   | manities/social science elective      |
| 3               | Technical Elect   |                                       | 3  |                   | cial Science Elective                 |
| 3               |                   | manities-Social Science Elective      | *  |                   |                                       |
| 16              | semester hours    |                                       | 16 | semester hours    |                                       |
|                 |                   |                                       |    |                   |                                       |

## **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 2009-2010

## Freshman Year

| <br>  | _                |                             |   |                  |                                       |
|-------|------------------|-----------------------------|---|------------------|---------------------------------------|
| <br>1 | <b>GNEG 1111</b> | Intro to Engineering I      | 1 | <b>GNEG 1121</b> | <b>Introduction to Engineering II</b> |
| 4     | MATH 2554        | Calculus I                  | 4 | MATH 2564        | Calculus II                           |
| 3     | CHEM 1103        | University Chemistry I      | 4 | Freshman Scien   | nce Elective (1)                      |
| 4     | PHYS 2054        | <b>University Physics I</b> | 3 | Humanities/Soc   | cial Science Elective                 |
|       |                  |                             |   |                  |                                       |

| 3             | ENGL   | 1013     | Composition I                     | 3              | <b>ENGL</b> | 1023       | Technical Composition II         |
|---------------|--|----------|-----------------------------------|----------------|-------------|------------|----------------------------------|
| 15            | 15 semester hours  |          | 15                                | semester hours |             |            |                                  |
|               |  |          |                                   |                |             |            |                                  |
| Sophomore Yea | r (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       | <b>Differential Equations</b>    |
| 4             | XXXX   | XXX4     | Sophomore Science Elective4       | 3              | History     | Govern     | <u>ment Requirement</u>          |
| 16            | semester   | hours    |                                   | 15             | semeste     | r hours    |                                  |
|               |  |          |                                   |                |             |            |                                  |
| <u>Junior</u> | Year (4)   |          |                                   |                |             |            |                                  |
| 3             | ELEG   | 3123     | Systems and Signals               | 3              | ELEG        | 3223       | Electronics II                   |
| 1             | ELEG   | 3121L    | System and Signal Lab             | 1              | <b>ELEG</b> | 3221L      | Electronics II Lab               |
| 3             | ELEG   | 3213     | Electronics I                     | 3              | ELEG        | 3303       | <b>Energy Conversion</b>         |
| 1             | ELEG   | 3211L    | Electronics I Lab                 | 1              | ELEG        | 3301L      | <b>Energy Conversion Lab</b>     |
| 3             | ELEG   | 3923     | Microprocessor System Design      | 3              | ELEG        | 3703       | Electromagnetics                 |
| 0             | ELEG   | 3920L    | Microprocessor Sys Design Lab     | 3              | Humani      | ities/Soci | ial Science elective             |
| 4             | CSCE   | 2014     | <b>Programming Foundations II</b> | 3              | Math/So     | cience El  | lective                          |
| 0             | ENGL   | 2003     | <b>Advanced Composition</b>       |                |             |            |                                  |
| 15            | semester   | hours    |                                   | 14             | semeste     | r hours    |                                  |
| ' <u> </u>    |  |          |                                   |                |             |            |                                  |
| Senior Year   |  |          |                                   |                |             |            |                                  |
| 1             | <b>ELEG</b>  | 4061     | EE Design I                       | 1              | <b>ELEG</b> | 4071       | EE Design II                     |
| 3             | ELEG   | 4143     | Stochastic Signal Processing      | 6              | Electric    | al Eng T   | echnical Elective                |
| 3             | Electrica  | al Engin | eering Technical Elective         | 3              |             | al Electi  |                                  |
| 3             |  |          |                                   | 3              |             |            | nanities/social science elective |
| 3             | a de grande de la constante de |          |                                   | 3              |             |            | ial Science Elective             |
| 3             |  |          |                                   |                |             |            |                                  |
| 16            | semester   |          |                                   | 16             | semeste     | r hours    |                                  |
|               |  |          |                                   | -              |             |            |                                  |

## **TOTAL: 125 semester hours**

- (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 INVENT                                   | TORY/DARS  |                            |  |                     |
|--|--|----------------------------|--|---------------------|
| PGRM   | SUBJ   | CIP                        | CRTS                                   |                     |
| DGRE   | PGCT   | OFFC&CRTY VALID            | )                                      |                     |
| REPORTING CODE                                   | S  |                            |  |                     |
| PROG. DEF  |  | REQ. DEF.                  |  | <b>D</b> .          |
|  |  |                            | Initials                               | Date                |
| Distribution                                     |  |                            |  |                     |
| Notification to:<br>(1) College<br>(7) Treasurer | (2) Department (3) Admissions<br>(8) Undergraduate Program Committee | (4) Institutional Research | (5) Continuing Education Initials Date | (6) Graduate School |