University Course and Programs Committee

Minutes

January 23, 2009

MEMBERS PRESENT:

Voting: Chuck Adams, Neil Allison, Juan Balda, Donna Graham, Andrew Horowitz, Patricia Koski, Stephen Langsner, Terry Martin, Suzanne McCray, Betsy Orr, Chuck Rotolo

Non-Voting: Lisa Kulczak, Karen Vestal and William Warnock

MEMBERS ABSENT:

Voting: Sarah Busch, Bob Brady, Cathy Chick, Bill Curington, Dawn Farver, Joel Freund, Judy Ganson, Tim Killian,

Non-Voting: Gary McHenry

GUESTS: Tim de Noble

Stephen Langsner called the meeting to order at 2:30 P.M.

- 1. The minutes for November 21, 2008 were approved. The December 19, 2008 meeting was conducted by e-mail and only for course changes
- 2. Course Change Proposals:
 - A. Undergraduate course change proposals (<u>Table A</u>) were approved without opposition and forwarded for the February 2009 Faculty Senate meeting. One course, ARCH 1013 was pulled from the consent agenda. Tim de Noble presented the course to the committee and following a short discussion concerning how the course was to be used in the University Core; it was passed without any opposition.
 - B. Graduate course and Dual course change proposals (<u>Tables B and C</u>) were approved without opposition and will forwarded for the February 2009 Graduate Council meeting.
- 3. Old Business: None
- 4. New Business:
 - A. Proposed undergraduate program change for the Graduate School Undergraduate Interdisciplinary Studies Microelectronics-Photonics, MEPH M, Minor in Microelectronics-Photonics (<u>Table One</u>, <u>Attachment 1A</u>) was presented by Pat Koski. The program change requested to drop ELEG 4203 and replace it with three hours of

- electives. The proposal was approved without opposition and will be forwarded for the February 2009 Faculty Senate meeting.
- B. Proposed undergraduate program change for the College of Engineering Department of Computer Science and Computer Engineering CENGBS BS, Computer Engineering (<u>Table Two</u>, <u>Attachment 2A</u>) was presented by Terry Martin. The program change requested to add laboratory sections to several courses delete several courses and change the semester that courses are offered. The proposal was approved without opposition and will be forwarded for the February 2009 Faculty Senate meeting.
- C. Proposed undergraduate program change for the College of Engineering Department of Computer Science and Computer Engineering CSCEBS BS, Computer Science (<u>Table Two</u>, <u>Attachment 2B</u>) was presented by Terry Martin. The program change requested to add laboratory sections to several courses delete several courses and change the semester that courses are offered. The proposal was approved without opposition and will be forwarded for the February 2009 Faculty Senate meeting.
- D. Proposed undergraduate program change for the College of Engineering Department of Electrical Engineering ELEGBS BS, Electrical Engineering (<u>Table Two</u>, <u>Attachment 2C</u>) was presented by Terry Martin. The program change requested to delete four courses with associated laboratories and add three require courses. This change also reduced the number of hours needed to graduate from 127 to 125. The proposal was approved without opposition and will be forwarded for the February 2009 Faculty Senate meeting.
- E. There were no graduate program changes submitted for action.

5. Other Business:

Donna Graham expressed a concern that some graduate courses are required by some programs, but are taught on an irregular basis. This does not allow for a time schedule to be developed for a two year master's program plan of study. Also, she wanted to know if there was a better method for departments that teach a course required by a degree program outside the department to know when the course was being offered; if it is listed in the catalog as being taught on an irregular basis.

After considerable discussion, the committee felt that each program would need to maintain contact with the offering department to insure that when course changes are made that departments requiring the course are notified. Since changing a course offering time is considered a minor change, the UCPC would never see the change.

Meeting was adjourned at 3:06 PM.

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 NAME	DEPT	CRSE ALPHA	CRSE NUM	CRSE TITLE	CREDIT LEVEL	ACTION	CREDIT HOURS	EFFECTIVE 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 NAME	DEPT	CRSE ALPHA	CRSE NUM	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

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

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CCH= CHANGE CREDIT HOURS FROM ___TO___

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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 Prior assignm	30.9999 ent from Office of Institutional Research is rec	quired.
Proposed Name 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 (7) Treasurer	(2) Department (8) Undergraduate Program	(3) Admissions 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

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

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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 N	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) CENGBS		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 http://www.arkansash Program prop	or Preparing Proposals for N ighered.com/pdfs/Book	ew Programs AppNewPrograms another acade	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:
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	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.

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- Briefly define or describe the major/program or discipline.
- Identify typical career goals or paths for graduates. (Optional)
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- 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: (1) College (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	ENGR	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 http://www.arkansash Program prop	or Preparing Proposals for N 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: 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									
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** 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									
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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			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/Notification			
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 ELEG			
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 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: m to complete under this pro		m: Year:			
SECTION V: Propos	sed Changes to an Exist	ing Program				
(1) Remove ELEG 2903 (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>	

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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:
 □ 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.)

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

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

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	XXXX XXX4	Freshman Science Elective (1)
4	PHYS 2054	University Physics I	3	XXXX XXX3	University Core Elective (2)
3	ENGL 1013	Composition I	3	ENGL 1023	Technical Composition II
15	semester hours		15	semester hours	
Sophomore Yea	ır (3)				
3	ELEG 2103	Electric Circuits I	3	CSCE 2003	Programming Foundations I
1	ELEG 2101L	Electric Circuits I Lab	1	CSCE 2001L	Programming Foundations I Lab
3	ELEG 2903	Digital Design I	3	ELEG 2113	Electric Circuits II
0	ELEG 2900L	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	Sophomore Science Elective (4)	0	ELEG 2910L	Digital Design II Lab
		-	4	MATH 3404	Differential Equations
			3	History Govern	nment Requirement
15	semester hours		18	semester hours	
					•
Junior Year (5)					
3	ELEG 3123	System and Signal Analysis	3	ELEG 3223	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	ELEG 3920L	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	ELEG 4061	EE Design I	1	ELEG 4071	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

 	_				
 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 Scien	nce Elective (1)
4	PHYS 2054	University Physics I	3	Humanities/Soc	cial Science Elective

3	ENGL 1	013	Composition I	3	ENGL	1023	Technical Composition II
15	semester	hours	-	15	semeste	r hours	-
Sophomore Yea	ır (2)						
3	ELEG 2	2103	Electric Circuits I	3	ELEG	2113	Electric Circuits II
1	ELEG 2	2101L	Electric Circuits I Lab	1	ELEG	2111L	Electric Circuits II Lab
4	ELEG 2	2904	Digital Design I	4	CSCE	2004	Programming Foundations I
4	MATH 2	2574	Calculus III	4	MATH	3404	Differential Equations
4	XXXX X	XXX4	Sophomore Science Elective4	3	History	Govern	ment Requirement
16	semester	hours		15	semeste	r hours	
<u>Junior</u>	Year (4)						
3	ELEG 3	3123	Systems and Signals	3	ELEG	3223	Electronics II
1	ELEG 3	3121L	System and Signal Lab	1	ELEG	3221L	Electronics II Lab
3	ELEG 3	3213	Electronics I	3	ELEG	3303	Energy Conversion
1	ELEG 3	3211L	Electronics I Lab	1	ELEG	3301L	Energy Conversion Lab
3	ELEG 3	3923	Microprocessor System Design	3	ELEG	3703	Electromagnetics
0	ELEG 3	3920L	Microprocessor Sys Design Lab	3	Humani	ities/Soci	ial Science elective
4	CSCE 2	2014	Programming Foundations II	3	Math/So	cience El	<u>lective</u>
0	ENGL 2	2003	Advanced Composition				
15	semester	hours		14	semeste	r hours	
Senior Year							
1	ELEG 4	1061	EE Design I	1	ELEG	4071	EE Design II
3	ELEG 4	1143	Stochastic Signal Processing	6	Electric	al Eng T	<u>Sechnical Elective</u>
3	Electrical	l Engin	eering Technical Elective	3	Technic	al Electi	ve
3	Engineeri	ing Sci	ence Elective	3	Upper le	evel hun	nanities/social science elective
3	Technical	l Electi	ve	3	Humani	ities/Soci	ial Science Elective
3	Upper-lev	vel Hur	nanities-Social Science Elective				
16	semester	hours		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	ORY/DARS			
PGRM	SUBJ	CIP	CRTS	
DGRE	PGCT	OFFC&CRTY VALII)	
REPORTING CODE	S			
PROG. DEF		REQ. DEF.	Initials	Date
Distribution				
Notification to: (1) College (7) Treasurer	(2) Department (3) Admissions (8) Undergraduate Program Committee	(4) Institutional Research	(5) Continuing Education Initials Date	(6) Graduate School