

**University Course and Programs Committee**  
**August 25, 2006**

**MEMBERS PRESENT**

**Voting:** Tom Costello, Bill Curington, Larry Foley, Donna Graham, Judy Ganson, Patricia Koski, Stephen Langsner, Terry Martin, John Norwood, Dale Thompson, Peggy Whan, Jeannie Whyne

**Non-Voting:** William Warnock, Jean Mitchell

**MEMBERS ABSENT**

**Voting:** Chuck Adams, Rhonda Adams, Louise Montgomery

**Non-Voting:** Gary McHenry

**GUESTS:** Kathryn Baker, Tom Smith, Sue Martin

John Norwood called the meeting to order at 2:31 P.M.

1. The minutes for May 26, 2006 were approved.
2. John Norwood was re-elected as committee chair for the 2006-07 academic year.
3. Course Change Proposals:
  - A. The undergraduate course change proposals ([Table A](#)) were approved and forwarded for the September 13, 2006 Faculty Senate meeting.
  - B. The graduate and dual courses ([Tables B and C](#)) were approved and forwarded to the Graduate Council.
4. Old Business:

From the May 26, 2006 UCPC meeting:  
A program change for the College of Education and Health Professions – Department of Curriculum and Instruction – which was proposing to allow students to choose a teacher licensure endorsement in either English as a Second Language (ESL) or Special Education (SPED) ([Attachment 2A](#)) was removed from being tabled at the May meeting and presented by Tom Smith. The program change was unanimously approved and forwarded for the September 13, 2006 Faculty Senate meeting.
5. New Business:
  - A. Program change for the Bumpers College of Agricultural, Food, and Life Sciences – School of Human Environmental Sciences ([Attachments 1A and 1B](#)) – was presented by Peggy Whan and Sue Martin. The program change adds an additional concentration to the HDF SBS degree – Birth through Kindergarten. The program change was approved without opposition and forwarded for the September 13, 2006 Faculty Senate meeting.
  - B. Program change for the College of Education and Health Professions – Department of Rehabilitation, Human Resources and Communication Disorders ([Attachments 2B and 2C](#)) was presented by Dale Thompson. The program change requested a name change for all Vocational Education programs to Career and Technical Education programs. The program change was approved without opposition and forwarded for the September 13, 2006 Faculty Senate meeting.
  - C. Program changes for the College of Engineering – Department of Computer Science and Computer Engineering ([Attachments 3A through 3C](#)) were presented by Terry Martin and Tom Costello. The program changes combined two courses into one which affected two degree programs and one minor. The program changes were approved without opposition and forwarded for the September 13, 2006 Faculty Senate meeting.
6. Other Business:
  - A. Jean Mitchell introduced Kathryn Baker as the new representative from the Registrar's Office.

Meeting was adjourned at 3:15 PM.



**TABLE A****UCPC****Undergraduate Courses**

August 25, 2006

COLL	DEPARTMENT NAME	DEPT	CRSE ALPHA	CRSE NUM	CRSE TITLE	CREDIT LEVEL	ACTION	CREDIT HOURS	EFFECTIVE DATE
ARCH	Architecture	ARCD	ARCH	3026	Architectural Design VI	U	CD, OTH	6	Fall 2007
ARCH	Architecture	ARCD	ARCH	3144	Architectural Technology IV	U	ELC	4	Fall 2007
ARCH	Architecture	ARCD	ARCH	4523	Architectural Theory	U	ANC	3	Fall 2007
ARCH	Architecture	ARCD	ARCH	5162 to 5163	Architectural Technology VI	U	CHN, CCH	2 to 3	Fall 2007
ARCH	Architecture	ARCD	ENVD	1301	Orientation in the Design Studio Experience	U	ELC	1	Fall 2007
ARCH	Architecture	ARCD	ENVD	4853	Urban Planning and Practice	U	ELC	3	Fall 2007
ARCH	Architecture	ARCD	ENVD	4863	Public Design and Planning Determinants	U	ELC	3	Fall 2007
ARCH	Architecture	ARCD	ENVD	4883	Design and Human Behavior	U	ELC	3	Fall 2007
ARCH	Architecture	ARCD	FAST	ARCH	Fast Mentoring Time	U	ELC	0	Fall 2007
ARCH	Landscape Architecture	ARLA	LARC	3723 to 3734	Landscape Construction II	U	CHN, CCH	3 to 4	Fall 2007
ENGR	Civil Engineering	CVEG	CVEG	4994	Civil Engineering Design	U	ELC	4	Fall 2007
ENGR	Industrial Engineering	INEG	INEG	4523 to 3523	Automated Production to Manufacturing Systems	D to U	CT, CD, CHN	3	Fall 2007

**TABLE B****UCPC****Graduate Courses**

August 25, 2006

COLL	DEPARTMENT NAME	DEPT	CRSE ALPHA	CRSE NUM	CRSE TITLE	CREDIT LEVEL	ACTION	CREDIT HOURS	EFFECTIVE DATE
WCOB	Finance	FINN	FINN	683V	Contemporary Issues Doctoral Colloquium	G	ANC	variable	Fall 2007

**Table C****UCPC****Dual Courses**

August 25, 2006

COLL	DEPARTMENT NAME	DEPT	CRSE ALPHA	CRSE NUM	CRSE TITLE	CREDIT LEVEL	ACTION	CREDIT HOURS	EFFECTIVE DATE
ENGR	Industrial Engineering	INEG	INEG	4523 to 3523	Automated Production to Manufacturing Systems	D to U	CT, CD, CHN	3	Fall 2007

## KEY

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### 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**

August 25, 2006

COLL	DEPARTMENT NAME	DEPT	CRSE ALPHA	CRSE NUM	CRSE TITLE	CREDIT LEVEL	ACTION	CREDIT HOURS	EFFECTIVE DATE
ARCH	Architecture	ARCD	ARCH	3026	Architectural Design VI	U	CD, OTH	6	Fall 2007
ARCH	Architecture	ARCD	ARCH	3144	Architectural Technology IV	U	ELC	4	Fall 2007
ARCH	Architecture	ARCD	ARCH	4523	Architectural Theory	U	ANC	3	Fall 2007
ARCH	Architecture	ARCD	ARCH	5162 to 5163	Architectural Technology VI	U	CHN, CCH	2 to 3	Fall 2007
ARCH	Architecture	ARCD	ENVD	1301	Orientation in the Design Studio Experience	U	ELC	1	Fall 2007
ARCH	Architecture	ARCD	ENVD	4853	Urban Planning and Practice	U	ELC	3	Fall 2007
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ENGR	Civil Engineering	CVEG	CVEG	4994	Civil Engineering Design	U	ELC	4	Fall 2007
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**TABLE B****UCPC****Graduate Courses**

August 25, 2006

COLL	DEPARTMENT NAME	DEPT	CRSE ALPHA	CRSE NUM	CRSE TITLE	CREDIT LEVEL	ACTION	CREDIT HOURS	EFFECTIVE DATE
WCOB	Finance	FINN	FINN	683V	Contemporary Issues Doctoral Colloquium	G	ANC	variable	Fall 2007



**Table C****UCPC****Dual Courses**

August 25, 2006

COLL	DEPARTMENT NAME	DEPT	CRSE ALPHA	CRSE NUM	CRSE TITLE	CREDIT LEVEL	ACTION	CREDIT HOURS	EFFECTIVE DATE
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## KEY

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CEGUC=	CHANGE EXISTING DUAL/GRADUATE COURSE TO UNDERGRADUATE CREDIT
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IN=	INACTIVATE COURSE



**assessments have shown that classroom management is a common weakness of our graduates. Specific changes include reducing math requirements from 15 hours to 9 hours; reducing science requirements from 16 hours to 12 hours; and adding new methods courses and ESL or SPED electives.**

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.)*

**There is a significant shortage of teachers in Arkansas and the nation in the areas of English as a Second Language (ESL) and Special Education (SPED). The Arkansas Department of Education allows teachers with an Arkansas teacher license to add ESL and SPED as endorsements. The proposed changes in the Childhood Education Program will result in graduates from the University of Arkansas P-4 teacher preparation program to add either ESL or SPED to their P-4 license. This will make graduates much more marketable as well as provide local education agencies with teachers prepared to teach ESL and special education. The proposed changes will also replace the CIED 4128, integrated methods block, with specific methods courses resulting in students being better prepared to teach all subjects in grades P-4. The addition of a classroom management class will also better prepared students for managing classroom environments and respond to a frequently assessed weakness in the CHED program.**

#### **SECTION VII: Catalog Text and Format**

*Insert the current catalog text and the proposed catalog text. Be sure that the proposed text includes all the elements listed below in order. Do not include university requirements or college requirements. Do not substitute a sample schedule for an explicit statement of requirements. Use standard terms and vocabulary (see Academic Policy 1621.10).*

**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:**

**The Department of Curriculum and Instruction sponsors initial teacher licensure programs in the areas of childhood education, middle level education, and secondary education. The department also offers additional licensure plans in ESL, gifted and talented, special education and selected other areas (please see College Web Site licensure link). With the cooperation of the Department of Health Science, Kinesiology, Recreation, and Dance; the Department of Rehabilitation,**

Human Resources and Communication Disorders; the J. William Fulbright College of Arts and Sciences; and the Dale Bumpers College of Agricultural, Food and Life Sciences, additional secondary school licensure programs are made available.

SEE PAGE 260 FOR CURRICULUM AND INSTRUCTION (CIED) COURSES

Childhood Education

- Associate Professors Collier, Imbeau, Gallavan, ,
- Assistant Professors Eilers, Kirkpatrick, Penner-Williams
- Instructors Cronan, Riggs,

The University of Arkansas offers the B.S.E. degree in childhood education and the M.A.T. degree in childhood education. To be recommended for an initial teaching license in childhood education (pre-kindergarten through grade four) the student must complete both degree programs. Information about the M.A.T. degree program in childhood education can be found in the Graduate School Catalog.

Academic Regulations for Childhood Education Majors and Others Seeking Admission to the Undergraduate Teacher Education Program

Stage I: Sylvia Hack Boyer Center for Student Services Advisement

1. Enroll in the undergraduate B.S.E. program in childhood education.
2. Complete 45 hours.
3. Obtain a grade of "C" or better in CIED 1002 and CIED 1011 (Introduction to Education/Practicum) and in MATH 1203 or higher.)
4. Establish a GPA of 2.50 or better at the University of Arkansas or on transfer hours.
5. Pass Praxis I (required for enrollment in upper-division professional education courses).

Stage II: Program Advisement

1. Register for and complete screening (attending required information session and participating in an oral interview with program faculty and providing a copy of the appropriate Praxis passing scores) in the first semester advised by childhood education program faculty.
2. Eligibility to enroll in subsequent program courses is contingent upon successful screening as well as meeting ALL Stage I requirements.
3. Establish a GPA of 2.7 or better.

Stage III: Admission to Undergraduate Teacher Education Program

Eligibility to enroll in upper-division classes (CIED 3103, CIED 3113, CIED 4128, CIED 4113, and CIED 4101) is based on successfully meeting all Stage II requirements and maintenance of 2.70 or better GPA.

NOTE: All professional education courses in CIED must have a grade of "C" or better. Passing appropriate Praxis scores and a GPA of 2.7 or better are required for enrollment in upper-division (senior year) professional education courses. CIED 3103 and CIED 3113 are only offered during the fall semester. CIED 4128, CIED 4113, and CIED 4101 are only offered during the spring semester. No teaching methods courses may be taken by correspondence.

Childhood Education Requirements      HOURS

General Studies

ENGL 1013 Composition I

ENGL 1023 Composition II

WLIT (3 hrs) World Literature

ENGL (3 hrs) Literature elective

HLSC 1002 Wellness Concepts

PEAC 1621 Fitness Concepts

ARTS 1003 Art Studio

PSYC 2003 General Psychology

MATH 1203 College Algebra

ENGL 2003 Advanced Composition

(Exemption by examination or credit in ENGL 2013 or grade of at least "B" in ENGL 1013 and "A" in ENGL 1023 at Fayetteville campus.)      24-27

**NOTE: All professional education courses in CIED must have a grade of "C" or better. Enrollment in upper-division professional education courses may be limited. Contact advisers for specific details. No teaching methods courses may be taken by correspondence.**

**Childhood Education/Communication**

**COMM 1313 Fundamentals of Communication**

**CIED 4101 Practicum**

**CIED 4113 Integrated Communication Skills**

**CIED 4128 Content Integration**

**(math, science, social studies)**

**HESC 2433 Child Development**

**HESC 3402/3401L Child Guidance**

**HESC 4453 Parenting and Family Dynamics**

**PSYC 3093 Childhood and Adolescence**

**CIED 3263 Language Development for the Educator 30**

**Interdisciplinary Studies**

**Mathematics (12 hours)**

**Twelve hours in addition to the general studies requirement of MATH 1203. Six of the 12 hours must include MATH 2213 and MATH 2223.**

**General Science (16 hours)**

**BIOL 1543/1541L**

**Geology course with laboratory**

**Physical science course with laboratory**

**Four hours of science elective**

**Social Science (15 hours)**

**ECON 3053 Economics for Elementary Teachers**

**Geography (select one of the following):**

**GEOG 4793 Geog Concepts for Global Studies**

**GEOG 1123 Human Geography**

**GEOG 2103 Emerging Nations**

**GEOG 2203 Developed Nations**

**PLSC 2003 American National Government**

**Arkansas History**

**HIST 3383 Arkansas and the Southwest**

**or other Arkansas history course**

**History (select one of the following):**

**HIST 2003 Hist/American People, 1492 to 1877**

**HIST 2013 Hist/American People, 1877 to Present 43**

**Pre-Education Core**

**CIED 1002 Intro. to Education**

**CIED 1011 Intro. to Education Practicum**

**CIED 3023 Survey of Exceptionalities**

**CIED 3033 Classroom Learning Theory**

**ETEC 2001 Educational Technology**

**ETEC 2002L Educational Technology Lab**

**CIED 3103 Children's Literature**

**CIED 3113 Emergent and Developmental Literacy 18**

**Psychomotor/Aesthetic Component**

**ARHS 1003 Art Lecture**

**ARED 3603 Public School Art for Elementary Schools**

**MUED 3813 Music for Elementary Education Majors**

**MUED 3810L Music for Elementary Education Majors Lab**

**PHED 3373 Methods and Materials in P.E. for Children 13**

**Total for Childhood Education 128-131**

NOTE: The advanced composition requirement should be satisfied during the appropriate semester as advised. ENGL 2003 is not listed since it does not count for degree hours but may be passed by test or exemption (or completion of course). Recommended math electives: MATH 2053, MATH 2103, MATH 3773, STAT 2303.

Proposed Catalog:

The Department of Curriculum and Instruction sponsors initial teacher licensure programs in the areas of childhood education, middle level education, and secondary education. The department also offers additional licensure plans in ESL, gifted and talented, special education and selected other areas (please see College Web Site licensure link). With the cooperation of the Department of Health Science, Kinesiology, Recreation, and Dance; the Department of Rehabilitation, Human Resources and Communication Disorders; the J. William Fulbright College of Arts and Sciences; and the Dale Bumpers College of Agricultural, Food and Life Sciences, additional secondary school licensure programs are made available.

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The University of Arkansas offers the B.S.E. degree in childhood education and the M.A.T. degree in childhood education. To be recommended for an initial teaching license in childhood education (pre-kindergarten through grade four) the student must complete both degree programs. Information about the M.A.T. degree program in childhood education can be found in the Graduate School Catalog.

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Stage I: Sylvia Hack Boyer Center for Student Services Advisement

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2. Complete 45 hours.
3. Obtain a grade of "C" or better in CIED 1002 and CIED 1011 (Introduction to Education/Practicum) and in MATH 1203 or higher.)
4. Establish a GPA of 2.50 or better at the University of Arkansas or on transfer hours.
5. Pass Praxis I (required for enrollment in upper-division professional education courses).

Stage II: Program Advisement

1. Register for and complete screening (attending required information session and participating in an oral interview with program faculty and providing a copy of the appropriate Praxis passing scores) in the first semester advised by childhood education program faculty.
2. Eligibility to enroll in subsequent program courses is contingent upon successful screening as well as meeting ALL Stage I requirements.
3. Establish a GPA of 2.7 or better.

Stage III: Admission to Undergraduate Teacher Education Program

Eligibility to enroll in upper-division classes (CIED 3103, CIED 3113, CIED 4128, CIED 4113, and CIED 4101) is based on successfully meeting all Stage II requirements and maintenance of 2.70 or better GPA.

NOTE: All professional education courses in CIED must have a grade of "C" or better. Passing appropriate Praxis scores and a GPA of 2.7 or better are required for enrollment in upper-division (senior year) professional education courses. No teaching methods courses may be taken by correspondence. Students must select either English Second Language (ESL) or Special Education as a licensure endorsement to their P-4 teaching license

Childhood Education Requirements      HOURS

ESL Option

General Studies

ENGL 1013 Composition I  
ENGL 1023 Composition II  
WLIT (3 hrs) World Literature  
HLSC 1002 Wellness Concepts  
PEAC 1621 Fitness Concepts  
ARTS 1003 Art Studio or ARHS 1003  
PSYC 2003 General Psychology  
MATH 1203 College Algebra  
ENGL 2003 Advanced Composition  
(Exemption by examination or credit in ENGL 2013 or grade of at least "B" in ENGL 1013 and "A" in ENGL 1023 at Fayetteville campus.) 24-27

NOTE: All professional education courses in CIED must have a grade of "C" or better. Enrollment in upper-division professional education courses may be limited. Contact advisers for specific details. No teaching methods courses may be taken by correspondence.

Childhood Education/Communication  
COMM 1313 Fundamentals of Communication  
CIED 3123 Math Methods  
CIED 3133 Integrated Social Studies  
CIED 3143 Teaching Science  
CIED 4101 Practicum  
CIED 4113 Integrated Communication Skills  
CIED 4153 Classroom Management  
CIED 3003/3001 Early Childhood Education/Practicum  
CIED 3263 Language Development for the Educator  
HESC 2433 Childhood Development 29

Interdisciplinary Studies

Mathematics (6 hours in addition to MATH 1203)  
MATH 2213  
MATH 2223.  
General Science (12 hours)  
BIOL 1543/1541L  
Geology course with laboratory  
Physical science course with laboratory  
Social Science (15 hours)  
ECON 3053 Economics for Elementary Teachers  
Geography (select one of the following):  
GEOG 4793 Geog Concepts for Global Studies  
GEOG 1123 Human Geography  
GEOG 2103 Emerging Nations  
GEOG 2203 Developed Nations  
Arkansas History  
HIST 3383 Arkansas and the Southwest  
or other Arkansas history course  
History/Political Science (select two of the following):  
HIST 2003 Hist/American People, 1492 to 1877 or  
HIST 2013 Hist/American People, 1877 to Present or  
PLSC 2003 American National Government

Pre-Education Core

CIED 1002 Intro. to Education  
CIED 1011 Intro. to Education Practicum  
CIED 3023 Survey of Exceptionalities  
CIED 3033 Classroom Learning Theory  
ETEC 2001 Educational Technology  
ETEC 2002L Educational Technology Lab  
CIED 3103 Children's Literature  
CIED 3113 Emergent and Developmental Literacy 18



Psychomotor/Aesthetic Component 6  
Fine Arts Electives (3)  
PHED 3373 Methods and Materials in P.E. for Children  
ESL electives (6 hours)  
Additional electives 9 hours)

Total for Childhood Education 125-128

NOTE: The advanced composition requirement should be satisfied during the appropriate semester as advised. ENGL 2003 is not listed since it does not count for degree hours but may be passed by test or exemption (or completion of course).  
Recommended math electives: MATH 2053, MATH 2103, MATH 3773, STAT 2303.

Special Education Option

General Studies

ENGL 1013 Composition I

ENGL 1023 Composition II

WLIT (3 hrs) World Literature

HLSC 1002 Wellness Concepts

PEAC 1621 Fitness Concepts

ARTS 1003 Art Studio or ARHS 1003

PSYC 2003 General Psychology

MATH 1203 College Algebra

ENGL 2003 Advanced Composition

(Exemption by examination or credit in ENGL 2013 or grade of at least "B" in ENGL 1013 and "A" in ENGL 1023 at Fayetteville campus.) 24-27

NOTE: All professional education courses in CIED must have a grade of "C" or better. Enrollment in upper-division professional education courses may be limited. Contact advisers for specific details. No teaching methods courses may be taken by correspondence.

Childhood Education/Communication

COMM 1313 Fundamentals of Communication

CIED 3123 Math Methods

CIED 3133 Integrated Social Studies

CIED 3143 Teaching Science

CIED 4101 Practicum

CIED 4113 Integrated Communication Skills

CIED 4153 Classroom Management

CIED 3003/3001 Early Childhood Education/Practicum

CIED 3263 Language Development for the Educator

HESC 2433 Childhood Development 29

Interdisciplinary Studies

Mathematics (6 hours in addition to MATH 1203)

MATH 2213

MATH 2223.

General Science (12 hours)

BIOL 1543/1541L

Geology course with laboratory

Physical science course with laboratory

Social Science (15 hours)

ECON 3053 Economics for Elementary Teachers

Geography (select one of the following):

GEOG 4793 Geog Concepts for Global Studies

GEOG 1123 Human Geography

GEOG 2103 Emerging Nations

**GEOG 2203 Developed Nations  
Arkansas History  
HIST 3383 Arkansas and the Southwest  
or other Arkansas history course  
History/Political Science (select two of the following):  
HIST 2003 Hist/American People, 1492 to 1877 or  
HIST 2013 Hist/American People, 1877 to Present or  
PLSC 2003 American National Government**

**Pre-Education Core  
CIED 1002 Intro. to Education  
CIED 1011 Intro. to Education Practicum  
CIED 3023 Survey of Exceptionalities  
CIED 3033 Classroom Learning Theory  
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ETEC 2002L Educational Technology Lab  
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**Psychomotor/Aesthetic Component 6  
Fine Arts Electives (3)  
PHED 3373 Methods and Materials in P.E. for Children  
Special Education electives (6 hours)  
Additional electives 9 hours)**

**NOTE: The advanced composition requirement should be satisfied during the appropriate semester as advised. ENGL 2003 is not listed since it does not count for degree hours but may be passed by test or exemption (or completion of course).**

**Childhood Education Requirements 125 - 128 HOURS**

**Childhood Education Eight-Semester Degree Program:  
Students wishing to follow the eight-semester degree plan should see page XX in the Academic Regulations chapter for university requirements of the program as well as page XX of this chapter for College requirements.**

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

PROGRAM INVENTORY/DARS

PGRM \_\_\_\_\_ SUBJ \_\_\_\_\_ CIP \_\_\_\_\_ CRTS \_\_\_\_\_  
 DGRE \_\_\_\_\_ PGCT \_\_\_\_\_ OFFC&CRTY VALID \_\_\_\_\_

REPORTING CODES

PROG. DEF. \_\_\_\_\_ REQ. DEF. \_\_\_\_\_  
 Initials \_\_\_\_\_ Date \_\_\_\_\_

**Distribution**

Notification to:  
 (1) College (2) Department (3) Admissions (4) Institutional Research (5) Continuing Education (6) Graduate School  
 (7) Treasurer (8) Undergraduate Program Committee Initials \_\_\_\_\_ Date \_\_\_\_\_

**ATTACHMENT 1A  
ADD, CHANGE OR DELETE PROGRAM OR UNIT**

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

**SECTION I: Approvals**

<hr/> Department / Program Chair	<hr/> Date Submitted	<hr/> Faculty Senate Chair	<hr/> Date
<hr/> College Dean	<hr/> Date	<hr/> Provost	<hr/> Date
<hr/> Undergraduate Program Committee Chair	<hr/> Date	<hr/> Board of Trustees Approval Date	
<hr/> Graduate Council Chair	<hr/> Date	<hr/> Arkansas Higher Education Coordinating Board Approval Date	

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

Academic Unit:       Major/Field of Study       Minor       Other Unit Concentration

Level:                       Undergraduate       Graduate       Law      Effective Catalog Year 2007

Current Name              \_\_\_\_\_

College, School, Division AFLS                      Department Code HESC

Current Code (6 digit Alpha) HDFSBS                      Proposed Code (6 digit Alpha) \_\_\_\_\_  
Prior approval from the Office of the Registrar is required.

Interdisciplinary Program                      CIP Code 19.0701  
Prior assignment from Office of Institutional Research is required.

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

**SECTION III: Add a New Program/Unit**

For new program proposals, complete Sections II and VII and use as a cover sheet for a full program proposal as described in 'Criteria and Procedures for Preparing Proposals for New Programs in Arkansas.' ADHE <<http://www.adhe.arknet.edu.aadept.html>>.

**SECTION IV: Eliminate an Existing Program/Unit**

Code/Name \_\_\_\_\_ Effective Catalog Year \_\_\_\_\_

No new students admitted to program after Term: \_\_\_\_ Year: \_\_\_\_\_

Allow students in program to complete under this program until Term: \_\_\_\_ Year: \_\_\_\_\_

**SECTION V: Proposed Changes to an Existing Program**

Insert here a statement of the exact changes to be made: Expanding program offerings to include a concentration in Birth through Kindergarten within the area of Human Development, Family Sciences and Rural Sociology.

Add the following courses which are not in other HDFSRS concentrations:

HESC 1411L Observation of Children in Early Childhood Programs

HESC 4313 Building Family and Community Relationships

HESC 4332/4332L Curriculum & Assessment: Birth to Three Years with Lab

HESC 4342/4342L Curriculum & Assessment: Three Years through Kindergarten with Lab

HESC 4373 Field Experience in Birth through Kindergarten Programs

HIST 3383 Arkansas and the Southwest

**Include the following existing courses for the BRKD concentration:**  
**HESC 2402/2401L Infant & Toddler Development with Lab**  
**HESC 3402/3401L Child Guidance with Lab**  
**HESC 4463 Administration & Evaluation of Child Development Programs**  
**CIED 3023 Survey of Exceptionalities**  
**CIED 3103 Children's Literature**  
**CIED 3113 Emergent and Developmental Literacy**  
**SCWK 3633 Problems of Child Welfare**

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.)*

**A statewide need exists for individuals with appropriate knowledge and skills to work with children from birth through five years of age in various kinds of programs. Examples of programs are Head Start, Arkansas Better Chance, Arkansas Better Chance for School Success, Kids First, kindergarten programs, as well as other kinds of programs for young children.**

**A goal for Head Start is to significantly increase the number of teachers with college degrees being hired. The importance of having teachers with bachelor degrees with content related to young children has been mandated in several policy statements, including statements from the National Institute for Early Education Research (NIEER) and the Center for Law and Social Policy (CLASP).**

**Arkansas Better Chance and Arkansas Better Chance for School Success programs are beginning to require public school licensure. The current program leading to public school licensure serving young children is the P-Grade 4 program which focuses on children in public school settings from kindergarten through the fourth grade, rather than on younger children. A void exists for appropriate credentials for teachers with four-year degrees to teach children from birth to three years of age. A lack of appropriate credentials exists for teachers with four-year degrees to teach children from three through five years of age. Licensure is needed to assure quality education of Arkansas's children. Having better qualified teachers for young children has been linked with more positive outcomes. A report by NIEER indicated that in cases where teachers lacked college training and courses in child development, educational gains by children were lower than in programs where teachers had educational backgrounds in child development. Upon completion, students will have the competencies as stated in the National Association for the Education of Young Children for Initial Preparation of Early Childhood Teachers document.**

### **SECTION VII: Catalog Text and Format**

*Insert the current catalog text and the proposed catalog text. Be sure that the proposed text includes all the elements listed below in order. Do not include university requirements or college requirements. Do not substitute a sample schedule for an explicit statement of requirements. Use standard terms and vocabulary (see Academic Policy 1621.10).*

**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 Copy

#### HUMAN DEVELOPMENT, FAMILY SCIENCES, AND RURAL SOCIOLOGY (HDFSRS)

Sue S. Martin

Area Coordinator

104 Home Economics Bldg.

479-575-4578

Students majoring in human development and family sciences prepare for one of the fastest growing employment opportunities in the country. The human services area includes jobs that serve people from conception through the last stages of life. Students develop skills for working with individuals and families in governmental, private, and nonprofit organizations. Two concentrations are offered:

#### Concentration A: Child Development (CDEV)

This concentration is for students who desire in-depth knowledge of children and programs for children from birth to age 12. The focus on children covers issues from the prenatal to early adolescence. Graduates may work as preschool teachers, daycare directors, specialists in the field of child life, and as child advocates.

#### Concentration B: Lifespan (LSPN)

This area of study covers the care issues faced by families and individuals in contemporary society. The knowledge and skills developed in this program will prepare the student to work in areas such as aging, parent education, financial and consumer counseling, youth services, and other human service type careers.

#### Requirements for a B.S.H.E.S. degree with a major in Human Development and Family Sciences:

(See page 40 for University Core and page 64 for B.S.H.E.S. requirements.)

35 hours of University Core Requirements to include:

BIOL 1543/1541L

4 hours from ASTR, CHEM, GEOL or PHYS

PSYC 2003

SOCI 2013 or RSOC 2603

University Advanced Composition Requirement:

ENGL 2003 (exemption possible)

College Requirement:

COMM 1313

General Electives: 21-23 hours

#### School Requirements: 64-68 hours

3 hours from AGEC 1103, AGEC 2103, ECON 2013,

ECON 2023, ECON 2143 or ECON 3053

3 hours from any computer course.

Select 22 hours of HESC courses:

HESC 1501 Orientation

HESC 1213 Nutrition in Health  
HESC 2413 Family Relations  
HESC 2433 Child Development  
HESC 3423 Adolescent Development  
HESC 4423 Adult Development  
HESC 4753 Family Financial Management  
HESC 4453 Parenting and Family Dynamics

Additional Requirements for Concentration A: Child Development

HESC 2402/2401L Infant & Toddler Development with Lab  
HESC 3402/3401L Child Guidance  
HESC 4463 Administration & Evaluation of Child Development Programs  
HESC 4472/4472L Child Development Practicum with Lab  
CIED 3023 Survey of Exceptionalities

CIED 3103 Children's Literature  
CIED 3113 Emergent and Developmental Literacy  
SCWK 3633 Problems of Child Welfare

Select 12 hours from the following:

HESC 3443 Families in Crisis  
HESC 3763L Family Resource Management  
HESC 4433 Dynamic Family Interaction  
HESC 4483 Internship in HDFS

(requires a GPA of 2.75 or higher)

HESC 4493 Public Policy Advocacy  
HESC 4223 Nutrition/ Life Cycle

CIED 3263 Language Development for the Educator

Any courses in HDFSRs not listed in this concentration or in the HDFS core may also be included as electives in this section.

124 Total Hours

Additional Requirements for Concentration B: Lifespan

HESC 1403 Lifespan Development  
HESC 3443 Families in Crisis  
HESC 4433 Dynamic Family Interaction  
HESC 4443 Gerontology

HESC 4493 Public Policy Advocacy

SCWK 3163 Death and Dying

Select 3 hours of statistics from:

PSYC 2013, SOCI 3303/3301L or WCOB 1033

Select 3 hours research methods from:

PSYC 3073, SOCI 3313, or SCWK 4073

Select 12 hours from:

HESC 3763L, HESC 4483

(requires a GPA of 2.75 or higher), SOCI 3233,

SOCI 4133, CNED 3053, CDIS 4273 or COMM 3433

RSOC 4603, RSOC 4623

Any courses in HDFSRs not listed in this concentration or in the HDFS core can also be included as electives in this section.

124 Total Hours

Requirements for a minor in Human Development and Family Sciences (HDFS-M): 18 hours

HESC 1403 and HESC 2413

Select 12-13 hours from the following:

HESC 2402/2401L, HESC 2433,

HESC 3402/3401L, HESC 3423, HESC 3443, HESC 4423,

HESC 4443, HESC 4453, HESC 4463, HESC 4493 or

HESC 4753

NEW CATALOG COPY

HUMAN DEVELOPMENT, FAMILY SCIENCES,  
AND RURAL SOCIOLOGY (HDFSRS)

Sue S. Martin

Area Coordinator

104 Home Economics Bldg.

479-575-4578

Students majoring in human development and family sciences prepare for one of the fastest growing employment opportunities in the country. The human services area includes jobs that serve people from conception through the last stages of life. Students develop skills for working with individuals and families in governmental, private, and nonprofit organizations. Three concentrations are offered:

Concentration A: Child Development (CDEV)

This concentration is for students who desire in-depth knowledge of children and programs for children from birth to age 12. The focus on children covers issues from prenatal to early adolescence.

Graduates may work as preschool teachers, daycare directors, specialists in the field of child life, and as child advocates.

Concentration B: Birth through Kindergarten (BRKD)

The knowledge and skills developed in this program will prepare students to work with children from birth through five years of age in various settings.

Concentration C: Lifespan (LSPN)

This area of study covers the care issues faced by families and individuals in contemporary society. The knowledge and skills developed in this program will prepare the student to work in areas such as aging, parent education, financial and consumer counseling, youth services, and other human service type careers.

Requirements for a B.S.H.E.S. degree with a major in Human Development and Family Sciences:

(See page 40 for University Core and page 64 for B.S.H.E.S. requirements.)

35 hours of University Core Requirements to include:

BIOL 1543/1541L

4 hours from ASTR, CHEM, GEOL or PHYS

PSYC 2003

SOCI 2013 or RSOC 2603

University Advanced Composition Requirement:

ENGL 2003 (exemption possible)

College Requirement:

COMM 1313

Electives: 19-23 hours

School Requirements: 64-68 hours

3 hours from AGEC 1103, AGEC 2103, ECON 2013,

ECON 2023, ECON 2143 or ECON 3053

3 hours from any computer course.

Select 22 hours of HESC courses:

HESC 1501 Orientation

HESC 1213 Nutrition in Health

HESC 2413 Family Relations

HESC 2433 Child Development

HESC 3423 Adolescent Development

HESC 4423 Adult Development  
HESC 4753 Family Financial Management  
HESC 4453 Parenting/Family Dynamics

Additional Requirements for Concentration A: Child Development

HESC 2402/2401L Infant and Toddler Development/Lab  
HESC 3402/3401L Child Guidance  
HESC 4463 Administration & Evaluation of Child Development Programs  
HESC 4472/4472L Child Development Practicum/Lab  
CIED 3023 Survey of Exceptionalities  
CIED 3103 Children's Literature  
CIED 3113 Emergent and Developmental Literacy  
SCWK 3633 Problems of Child Welfare  
Select 12 hours from the following:  
HESC 3443 Families in Crisis  
HESC 3763L Family Resource Management  
HESC 4433 Dynamic Family Interaction  
HESC 4483 Internship in HDFS (requires a GPA of 2.75 or higher)  
HESC 4493 Public Policy Advocacy  
HESC 4223 Nutrition/ Life Cycle  
CIED 3263 Language Development for the Educator  
Any courses in HDFSRS not listed in this concentration or in the HDFS core may also be included as electives in this section.

124 Total Hours

Additional Requirements for Concentration B: Birth through Kindergarten (BRKD)

HESC 1411L Observation of Children in Early Childhood Programs  
HESC 2402/2401L Infant and Toddler Development/Lab  
HESC 3402/3401L Child Guidance/Lab  
HESC 4313 Building Family & Community Relationships  
HESC 4332/4332L Curriculum & Assessment: Birth to Three Years/Lab  
HESC 4342/4342L Curriculum & Assessment: Three Years through Kindergarten/Lab  
HESC 4463 Admn and Evaluation of Child Dev Programs  
HESC 4373 Field Experience in Birth through Kindergarten Programs  
HIST 3383 Arkansas and the Southwest  
CIED 3023 Survey of Exceptionalities  
CIED 3103 Children's Literature  
CIED 3113 Emergent and Developmental Literacy  
SCWK 3633 Problems of Child Welfare  
124 Total Hours

Additional Requirements for Concentration C: Lifespan

HESC 1403 Lifespan Development  
HESC 3443 Families in Crisis  
HESC 4433 Dynamic Family Interaction  
HESC 4443 Gerontology  
HESC 4493 Public Policy Advocacy  
SCWK 3163 Death and Dying  
Select 3 hours of statistics from:  
PSYC 2013, SOCI 3303/3301L or WCOB 1033  
Select 3 hours research methods from:  
PSYC 3073, SOCI 3313, or SCWK 4073  
Select 12 hours from:  
HESC 3763L, HESC 4483 (requires a GPA of 2.75 or higher), SOCI 3233,  
SOCI 4133, CNED 3053, CDIS 4273 or COMM 3433  
RSOC 4603, RSOC 4623  
Any courses in HDFSRS not listed in this concentration or in the HDFS core can also be included as electives in this section.  
124 Total Hours



**Requirements for a minor in Human Development and Family Sciences (HDFS-M): 18 hours**  
**HESC 1403 and HESC 2413**  
**Select 12-13 hours from the following:**  
**HESC 2402/2401L, HESC 2433,**  
**HESC 3402/3401L, HESC 3423, HESC 3443, HESC 4423,**  
**HESC 4443, HESC 4453, HESC 4463, HESC 4493 or HESC 4753**

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

PROGRAM INVENTORY/DARS

PGRM

SUBJ \_\_\_\_\_

CIP \_\_\_\_\_

CRTS \_\_\_\_\_

DGRE \_\_\_\_\_

PGCT \_\_\_\_\_

OFFC&CRTY VALID \_\_\_\_\_

REPORTING CODES

PROG. DEF. \_\_\_\_\_

REQ. DEF.

Initials \_\_\_\_\_

Date \_\_\_\_\_

**Distribution**

Notification to:

(1) College

(2) Department

(3) Admissions

(4) Institutional Research

(5) Continuing Education

(6) Graduate School

(7) Treasurer

(8) Undergraduate Program Committee

Initials \_\_\_\_\_

Date \_\_\_\_\_

## ATTACHMENT 1B

### LETTER OF NOTIFICATION – 3

#### NEW OPTION, CONCENTRATION, EMPHASIS

(Maximum 18 semester credit hours of new theory courses and 6 credit hours of new practicum courses)

**1. Institution submitting request:**

University of Arkansas, Fayetteville

**2. Contact person/title:**

Dr. Nancy E. Talburt  
Vice Provost for Academic Affairs

**3. Phone number/e-mail address:**

479-575-2151  
[netal@uark.edu](mailto:netal@uark.edu)

**4. Proposed effective date:**

August 15, 2007

**5. Title of degree program:**

Bachelor of Science in Human Environmental Sciences  
Human Development, Family Sciences, and Rural Sociology Major

**6. CIP Code:**

19.0701

**7. Degree Code:**

HDFSBS

**8. Proposed option/concentration/emphasis name:**

Birth through Kindergarten concentration (BRKD)

**9. Reason for proposed action:**

A report by the National Institute for Early Education Research (NIEER) indicated that in cases where teachers lacked college training and courses in child development, educational gains by children were lower than in programs where teachers had educational backgrounds in child development (Barnett, W. S. Preschool Policy Facts: Better Teachers, Better Preschoolers: Student Achievement Linked to Teacher Qualifications, NIEER, 2004).

A statewide, national, and global need exists for individuals with appropriate knowledge and skill to teach children from birth through five years of age in various kinds of programs. Examples of programs for children in Arkansas are Head Start, Arkansas Better Chance, Arkansas Better Chance for School Success, University of Arkansas for Medical Sciences Kids First, Education Service Cooperatives in the Arkansas Department of Education, Community Mental Health Centers in the Division of Behavioral Health Services in the Arkansas Department

of Health and Human Services, public school kindergarten programs, as well as other kinds of programs for young children.

The Head Start program is being mandated to increase the number of teachers with college degrees. The importance of having teachers with bachelor degrees with content related to young children has been addressed in several policy statements, including NIEER and the Center for Law and Social Policy (Hart, K., & Schumacher, R. Making the Case: Improving Head Start Teacher Qualifications Requires Increased Investment. CLASP Policy Paper, Head Start Series, Paper No. 1, July 2005).

The Arkansas Better Chance (ABC) programs are for children from infancy to five years of age. The ABC programs are requiring that teachers have four-year degrees in child development, early childhood education, or psychology. While a possibility exists that waivers may be sought by private programs funded by ABC programs, teachers in ABC programs in public school must have a public school license. The preschool programs for three- to five-year-old children operated by the Arkansas Educational Service Cooperatives also require teachers to have a public school license. Head Start is expected to require licensure in the near future. A public school license for teachers of children from birth through age five in Arkansas is being sought. The current license, P-4 (Preschool through Grade 4) focuses more on competencies for teaching children from kindergarten through grade four rather than on competencies needed for teaching young children.

The Birth through Kindergarten (BRKD) concentration would provide a comprehensive program that would enable students to demonstrate competencies required by the National Association for the Education of Young Children to teach children from birth through five years of age. The proposed concentration would prepare students for careers teaching children in Arkansas. The concentration would also complete the program offerings in the Human Development, Family Sciences, and Rural Sociology major concerning children from infants through the adolescent years.

#### **10. New option/concentration/emphasis objective:**

The objective of the Birth through Kindergarten concentration is to prepare students to teach children from birth through five years of age in various educational settings.

Competencies to be accomplished by students in the concentration are to:

- 1) obtain knowledge and skills in curriculum application for children from birth through five years of age as related to all areas of child development that include physical, intellectual, social, and emotional development,
- 2) have the ability to administer programs for young children,
- 3) understand professional ethics,
- 4) establish and maintain working relationships with parents of children, and
- 5) have an awareness of community resources beneficial to children and families, to know how to access the resources, and to be able to help families access the resources.

#### **11. Provide the following:**

##### **a. List of required courses for the Birth through Kindergarten concentration**

Required courses which are not in another existing HDFSRs concentration:

HESC 1411L Observation of Children in Early Childhood Programs

HESC 4313 Building Family and Community Relationships  
HESC 4332/4332L Curriculum and Assessment: Birth to Three Years/Lab  
HESC 4473 Field Experience in Birth through Kindergarten Programs  
HIST 3383 Arkansas & the Southwest

Required courses for the BRKD concentration that are in an existing HDFSRS concentration, including the HDFS core:

HESC 1501 Orientation  
HESC 1213 Nutrition in Health  
HESC 2402/2401L Infant and Toddler Development/Lab  
HESC 2413 Family Relations  
HESC 2433 Child Development  
CIED 3023 Survey of Exceptionalities  
CIED 3103 Children's Literature  
CIED 3113 Emergent and Developmental Literacy  
HESC 3402/3401L Child Guidance/Lab  
HESC 3423 Adolescent Development  
SCWK 3633 Problems of Child Welfare  
HESC 4423 Adult Development  
HESC 4753 Family Financial Management  
HESC 4453 Parenting/Family Dynamics  
HESC 4463 Administration and Evaluation of Child Development Programs

**b. New course descriptions**

HESC 1411L Observation of Children in Early Childhood Programs

In a laboratory setting, students will learn foundational observation skills necessary to understand and assess the development of young children. Emphasis will be on objectivity, confidentiality, and accuracy as students practice a variety of documentation techniques.

HESC 4313 Building Family & Community Relationships

This course will help students interested in early childhood to value the role parents play in schools and the role schools play in a community. Various models of parent involvement will be explored. Students will plan a school-community collaborative partnership/project which values diverse cultures.

HESC 4332/4332L Curriculum & Assessment: Birth to Three Years/Lab

The course will introduce students to curriculum planning and assessment in programs serving children from birth to three years of age. Emphasis will be on responsive relationships and curriculum focused on routines and activities.

HESC 4342/4342L Curriculum & Assessment: Three Years through Kindergarten/Lab

Students will plan curriculum and assessment activities for children three years of age through kindergarten. Emphasis will be on professionalism, philosophy and a code of ethics. Students will interact with young children and facilitate learning and assessment experiences in a program for young children.

HESC 4473 Field Experience in Birth through Kindergarten Programs

This course provides the student with interactive and observational experiences with young children in community-based early childhood programs.

### **c. Program goals and objectives**

The objectives of the Human Development, Family Sciences, and Rural Sociology major in the School of Human Environmental Sciences are to prepare professionals for leadership roles in a variety of careers in business, government, education, and social service settings, and to enable students to have an understanding of the dynamics of the social, cultural, and physical environments in which families live.

The goals of the Birth through Kindergarten concentration will support the overall goals of the HDFSR major. Specific goals are to enable students to teach children from birth through five years of age, to work with families of the children being taught, and to build an awareness of community resources for use with programs, children, and families.

The objectives of the Birth through Kindergarten concentration are:

- to enable students to have an understanding of all areas of child development: physical, cognitive, social, and emotional,
- to provide experiences for students to demonstrate a knowledge of appropriate planning, implementing, and evaluating educational curriculum for young children,
- to provide students with a knowledge of the importance of progress of individual children and
- to communicate with parents information about children's progress,
- to provide students with an understanding of the importance of professional ethics as related to the teaching profession, and
- to build an awareness of community resources for children and families.

### **c. Expected student learning outcomes**

Expected student learning outcomes for the Birth through Kindergarten (BRKD) concentration are to demonstrate knowledge of the following:

child growth and development,  
curriculum planning and assessment,  
recording children's progress;  
parent involvement;  
professional ethics, and  
community resources appropriate for children and families.

Learning outcomes will be measured in the following ways:

through class lectures, discussions, and demonstrations; laboratory participation; observation reports and other written assignments; and examinations.

### **12. Will the new option be offered via distance delivery?**

No

### **13. Mode of delivery to be used:**

The mode of delivery will be through lectures, demonstrations, and discussions in classrooms on campus at the University of Arkansas, Fayetteville. Laboratory experiences will take place on

campus in the Infant Development Center, the Nursery School, and in selected programs for young children in communities in Northwest Arkansas.

**14. Explain in detail the distance delivery procedures to be used:**

Not applicable

**15. Is the degree approved for distance delivery?**

No

**16. List courses in option/concentration/emphasis. Include course descriptions for new courses.**

See 11. a. and 11. b.b.

**17. Specify the amount of the additional costs required, the source of funds, and how funds will be used.**

Additional funds are not required at this time. As enrollment in the new concentration increases, funds will be needed for a new faculty position. The anticipated increase in enrollment in the new concentration is expected to cover the costs of this BRKD concentration.

Board of Trustees Approval \_\_\_\_\_ Date: \_\_\_\_\_

Chief Academic Officer \_\_\_\_\_ Date: \_\_\_\_\_

## ATTACHMENT 2B

## ADD, CHANGE OR DELETE PROGRAM OR UNIT

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

**SECTION I: Approvals**

Department / Program Chair _____	Date Submitted _____	Faculty Senate Chair _____	Date _____
College Dean _____	Date _____	Provost _____	Date _____
University Course and Programs Committee _____	Date _____	Board of Trustees Approval/Notification Date _____	
Graduate Council Chair _____	Date _____	Arkansas Higher Education Coordinating Board Approval/Notification Date _____	

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

Academic Unit:       Major/Field of Study       Minor       Other Unit \_\_\_\_\_

Level:                       Undergraduate       Graduate       Law      Effective Catalog Year 2007

Current Name              Vocational Education

College, School, Division EDUC                      Department Code RHRC

Current Code (6 digit Alpha) VOEDBS                      Proposed Code (6 digit Alpha)      CATEBS

Prior approval from the Office of the Registrar is required.

Interdisciplinary Program                      CIP Code 13.1320  
Prior assignment from Office of Institutional Research is required.

Proposed Name Career and Technical Education

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

**SECTION III: Add a New Program/Unit**

For new program proposals, complete Sections II and VII and use as a cover sheet for a full program proposal as described in 'Criteria and Procedures for Preparing Proposals for New Programs in Arkansas.' ADHE <<http://www.adhe.arknet.edu.aadept.html>>.

**SECTION IV: Eliminate an Existing Program/Unit**

Code/Name \_\_\_\_\_ Effective Catalog Year \_\_\_\_\_

No new students admitted to program after Term: \_\_\_\_ Year: \_\_\_\_\_

Allow students in program to complete under this program until Term: \_\_\_\_ Year: \_\_\_\_\_

**SECTION V: Proposed Changes to an Existing Program**

Insert here a statement of the exact changes to be made: Name and alpha code changes in the degree and concentrations. The BSE in Vocational Education will be changed to a BSE in Career and Technical Education. The alpha code will be changed from VOED to CATE. All references to vocational education in course titles and catalog copy will be changed to career and technical education.

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 existing degree program in vocational education with concentrations in business education, family and consumer science, and technology education has recently transitioned from a graduate level MAT program to an undergraduate BSE program in an effort to better serve student clients. Given the significant curricular changes incorporated into this recent change and state and national trends away from the term "vocational education," the faculty voted to replace the title with the more current and widely used title "career and technical education." This title will also be reflected in the "alpha" code used to identify courses. The alpha code will change from "VOED" to "CATE." This change will assist in drawing distinctions between the non-licensure programs in Workforce Development and Vocational and Adult Education courses in the graduate program**

## **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:**

#### **VOCATIONAL EDUCATION(VOED)**

**• Professors Biggs, Daugherty, Hinton, Thompson (C.)**

**• Associate Professors De Vore, Nafukho, Orr, Thompson (D.)**

**• Assistant Professors Banks, Beck, Brooks, Mungania**

**The University of Arkansas has been approved by the State Board for Workforce Education for the preparation of teachers, supervisors, and administrators in vocational education. The two areas of concentrations in vocational education are: business education (BUED) and family and consumer sciences (FCSE). A third concentration, technology education (TEED), is awaiting final approval from the Arkansas Department of Higher Education Coordinating Board.**

#### **Professional Pre-Education Core Requirements in Vocational Hours**

**Curriculum and Instruction**

**CIED 1002-Intro. to Education**

1622.20A p/vcaa 2/23/06



CIED 1011 Intro. to Education Practicum  
CIED 3023 Survey of Exceptionalities  
CIED 3033 Classroom Learning Theory—18  
Educational Technology  
ETEC 2001 Educational Technology  
ETEC 2002L Educational Technology Lab  
Vocational Education  
VOED 4003 Intro. to Professionalism  
VOED 4013 Presentation Techniques  
General Studies Requirements

The general requirements for all under-graduate programs in the College of Education and Health Professions are found in the undergraduate catalog. FSCE must enroll in 4 hours of chemistry that meet university core as well as electives

Technical Studies Requirements

Technical studies requirements for students majoring in business education and family and consumer science education are listed below.

Professional Education Requirements for Master of Arts in Teaching (M.A.T.)

See the Graduate School Catalog.

SEE PAGE 332 FOR VOCATIONAL EDUCATION (VOED) COURSES.

Business Education (BUED)

Betsy Orr

Adviser

109 Graduate Education Building

479-575-6430

borr@uark.edu

Completion of Bachelor of Science in Education degree has two concentrations: non licensure and licenture. Requirements for initial teacher licensure may be met by completing the B.S.E. and the Master of Arts in Teaching (M.A.T.) (See the Graduate School Catalog.) Refer to the college academic regulations, admissin process for initial licensure for other requirements.

Business Technology Education Requirements

University Core Requirements (35-38 hours)

Social Science

PSYC 2003 General Psychology and ECON 2023 (6 hours)

Principles of Microeconomics with "C" or better (3 hours)

3 hours must be MATH 2053 – finite Math

BUED Gneral Education Requirements (16-19 hours)

HLSC 1002 Wellness Concepts

PEAC 1621 Fitness Concepts

Electives (13-16 hours) as needed to meet 54 total hours/credits of general education and university core

III. Pre-Education Core (18 hours)

CIED 1002 Introduction to Education

CIED 1011 Introduction to Education: Practicum

CIED 3023 Survey of Exceptionalities

CIED 3033 Classroom Learning Thoery

VOED 4003 Introduction to Professionalism

VOED 4013 Presentation Techniques

ETEC 2001/2002L, Educational technology with "C" or better

IV. Business Education BUED Concentration (52 hours)

In addition to the general studies (see note), 7-10 credit hours of electives and the 18 hour Professional Pre-Education Core, the following courses are required for a concentration in business and, upon completion of the Master of Arts in Teaching (M.A.T.) degree, will qualify the graduate for the teaching in the area of business technology. Applicants for licensure must also complete Arkansas Department of Education requirements.

Business Technology Education Requirements

Hours

<u>WCOB 1012 Legal Environment of Business</u>	
<u>WCOB 1023 Business Foundations</u>	
<u>WCOB 1033 Data Analysis &amp; Interpretation</u>	
<u>WCOB 2013 Markets and Consumers</u>	
<u>WCOB 2023 Production and Delivery of Goods and Services</u>	
<u>ECON 2013 Principles of Macroeconomics</u>	
<u>ISYS 3000-level or above</u>	
<u>VOED 480V Problems in VOED (Word Processing)</u>	
<u>MGMT 3563 Mgmt Concepts/Org Behavior, or</u>	
<u>MKTG 3433 Principles of Marketing</u>	
<u>VOED 380V Supervised Work Experience (6 hours)</u>	
<u>VOED 4122 Leadership Development</u>	
<u>COMM 3703 Organizational Communications</u>	
<u>Business Electives (15 hours)</u>	

Total 124 hours

Family and Consumer Sciences Education (FCSE)

Cecelia K. Thompson

Adviser

120 Graduate Education Building

479-575-2581

Students pursuing the Bachelor of Science in Education degree may select the family and consumer sciences education program concentration as a field of specialization in vocational education. Requirements for initial licensure may be met by completion of the B.S.E. and the Master of Arts in Teaching (M.A.T.) See the Graduate School Catalog. Completion of the B.S.E. and M.A.T. will prepare students to teach family and consumer sciences at the junior high and secondary education level. Completion of the B.S.E. will prepare students to work in professional careers in the Cooperative Extension Service, business, industry, or social services. In addition to the general studies and the 18-hour Professional Pre-Education Core, the following courses are required for a concentration in family and consumer sciences education:

HOURS

Technical Requirements

HESC 1403 and HESC 2413

(must be taken as part of the general education requirements in social studies.)

33

Study of the Family— Select 2 courses:

HESC 3443 Families in Crisis

HESC 4433 Dynamic Family Interaction

HESC 4453 Parenting and Family Dynamics

SCWK 3233 Juvenile Delinquency

SCWK 4133 Family Preservation

SCWK 4143 Addiction and the Family

Human Development— Select 1 course

HESC 2402/2401L Infant and Toddler

Development

HESC 2433 Child Development

HESC 3423 Adolescent Development

Management

HESC 3763L Family Resource Management Lab

Consumer Economics— Select 1 course

HESC 4753 Family Financial Management or  
FINN 3003 Personal Financial Management  
Nutrition and Food

HESC 1213 Nutrition in Health

HESC 2112/2111L Foods I

HESC 2123/2120L Catering for Healthy  
Lifestyles, or HESC 2203 Nutrition for

Exercise and Sports

Clothing and Textiles

HESC 1013 Intro. to Clothing Concepts

HESC 2053/2050L Intro. to Textile Science

Housing

VOED 480V (3)

Professional Concerns (Recommended but not  
required)

HESC 1501 Orientation to HESC

HESC 4303 Professional Development

CNED 3053 The Helping Relationship

EXED 3023 Intro. to the Cooperative Extension  
Service

EXED 4173 Principles of Extension Teaching

Electives—26 credits from any department in the  
University. Use elective credits to strengthen  
your area of family and consumer science or  
complete work toward and additional licensure  
plan (ALP).

NOTE: The minimum number of hours required to receive a baccalaureate  
degree at the University of Arkansas is 124 semester hours.

For professional education requirements for Master of Arts in  
Teaching (M.A.T.), see the Graduate School Catalog or see page 165  
in this catalog.

#### Industrial and Technical Education (ITED)

NOTE: The Industrial and Technical Education (ITED) concentration is being phased out and is no longer accepting new A  
Technology Education (TEED) concentration will be students upon final approval by the Arkansas Higher Coordinating  
Board. Contact the adviser below for further information. The Technology Education (TEED) concentration graduates to  
teach technology education at the junior secondary education level. The program of study was developed correspond to the  
national Standards for Technological Literacy, Council for the Accreditation of Teacher Education (NCATE) standards, and  
applicable Arkansas Curriculum Frameworks.

Michael K. Daugherty

Technology Education Adviser

107 Graduate Education Building

479-575-5119

#### Performance-Based Teacher Education (PBTE) Concentration

This concentration should be selected by incumbent trade and technical instructors who desire to obtain a Science in  
Education degree or become certified as a instructor in the post-secondary vocational and secondary school systems. PBTE  
concentration utilizes the Performance-Based Education modules and is field-based.

#### Residency Requirement for PBTE Concentration

The residency requirement for the PBTE concentration that at least six semester hours of course work must campus, with an  
additional six semester hours taken the state taught by University of Arkansas faculty.

#### Human Resource Development concentration (HRDV)

Advisor: Phil Gerke

217 Graduate Education Building

479-575-4690

Advisor: Dale E. Thompson

111 Graduate Education Building

479-575-6640

HRDV curriculum focuses on developing the “people” skills and effective development strategies useful for management, supervision, employee/technical training, consultation, or instructional design. The plan of study is designed to accelerate degree completion for working adults by offering credit for knowledge gained by experience. Courses are offered by distance learning at selected campuses around Arkansas on a two-year rotation plan in cooperation with the UA Division of Continuing Education. Undergraduates also obtain a solid academic base to pursue a graduate degree. This is not a teacher preparation concentration.

This concentration is open only to adult learners who have earned at least 40 hours of General Education requirements, who are employed full-time, and have at least five years of work experience. Departmental approval is mandated before taking any of the required upper-level courses in this concentration. Because of this admission requirement this major is not an option for the Act 1014 eight-semester plan. However a recommended 4-semester plan and additional information regarding this program can be found on the College web site.

#### University Core and HRDV General Education Requirements (55 hours)

PSYC 2003 General Psychology

Oral Communication: Fundamentals or public speaking

Health/Wellness/Fitness/Safety

Computers/Media: application software courses, or exempted with documented proficiency

Electives or as needed to total 55 hours/credits of general education

#### HRDV Technical Requirements 33 hours

Required Course: VAED 3403 Employment Law in Human Resource Development.

The remaining 30 hours of HRD technical requirements may be satisfied in a variety of ways. Appropriate occupation-related credits from UA coursework, transfers from accredited institutions of higher learning (within limits), or from College Level Examination Program (CLEP) exams may be applied.

Credit for work experience and experiential learning may be applied to HRD technical requirements. VOED 200V-204V credit is earned through selected National Occupational Competency Testing Institute (NOCTI) assessments.

After completing VAED 3503 Workforce Behavior course, credit may be earned through VAED 450V Portfolio

Development for documented experiential or occupational learning based on a standardized format as suggested by the Council for the Advancement of Experiential Learning (CAEL). Credit for certain occupational training or professional certifications may also be earned using the American Council on Education (ACE) guidelines.

After the initial 12-hour HRDV Internship requirement has been met, up to 12 additional credits of ITED 459V may also be applied to HRDV Technical requirements.

HRDV Professional Courses (24 hours): taught in a two-year rotation of weekend and Web-based distance learning classes VAED 3113, VAED 3123, VAED 3133, VAED 3213, VAED 4113, VAED 4133, VAED 4213, VAED 4233

#### HRDV Internship Requirements (12 hours)

ITED 459V, HRDV Internship: practical application of HRD theory and concepts in the workplace

Total 124 hours are required by the University of Arkansas for a degree.

## NEW CATALOG COPY

### CAREER AND TECHNICAL EDUCATION (CATE)

• Professors Biggs, Daugherty, Hinton, Thompson (C.)

• Associate Professors De Vore, Nafukho, Orr, Thompson (D.)

• Assistant Professors Banks, Beck, Brooks, Mungania

The University of Arkansas has been approved by the State Board for Workforce Education for the preparation of teachers, supervisors, and administrators in career and technical education. The four of the five areas of concentration in career and technical education are: business education (BUED), family and consumer sciences (FCSE), technology education (TEED), and competency-based teacher development (CBTD). A fifth area of concentration within the career and technical education degree program is the human resource development concentration (HRDV). HRDV is a degree completion program focused on management and does not lead to teacher licensure.

### Business Education concentration (BUED)

Advisor: Betsy Orr

**109 Graduate Education Building**

**479-575-6430**

**borr@uark.edu**

**Students pursuing the Bachelor of Science in Education degree may select the business education program concentration as a field of specialization in career and technical education. Requirements for initial licensure may be met by completion of the B.S.E. Completion of the B.S.E. will prepare students to teach business education at the junior high and secondary education level. Students should meet with their advisor for information regarding additional licensure plans (ALP) and endorsements.**

**I. University Core Requirements: (35 - 38 hours)**

**Every undergraduate student must meet the advanced composition requirement**

**9 hours Social Sciences must be PSYC 2003 General Psychology and ECON 2013 and ECON 2023**

**3 hours Math must be MATH 2053, Finite Math**

**II. BUED General Education Requirements: (3 hours)**

**HLSC 1002 Wellness Concepts and PEAC 1621 Fitness Concepts or HLSC 1103 Personal Health and Safety**

**PEAC 1621**

**III. Professional Education (33 hours)**

**CIED 3023 Survey of Exceptionalities**

**CIED 3033 Classroom Learning Theory**

**CATE 1001 Practicum in Career and Technical Education**

**CATE 4003 Professionalism**

**CATE 4013 Teaching Strategies**

**CATE 4023 Classroom Management**

**CATE 4033 Assessment/Program Evaluation**

**CATE 4041 Lab Management**

**CATE 4051 Seminar**

**CATE 406V Teaching Internship (12 hours)**

**IV. Technical Requirements (53 hours)**

**WCOB 1012 Legal Environment of Business**

**WCOB 1023 Business Foundations**

**WCOB 1033 Data Analysis and Interpretation**

**WCOB 1120 Computer Competency Requirement**

**WCOB 2013 Markets and Consumers**

**WCOB 2023 Production and Delivery of Goods and Services**

**WCOB 2043 Acquiring and Managing Financial Resources**

**ISYS 2263 Introduction to Information Systems Development**

**MKTG 3433 Principles of Marketing**

**CATE 480V Problems in CATE (Word Processing) (3 hours)**

**COMM 1313 Fundamentals of Communication**

**COMM 3703 Organizational Communications**

**MATH 1203 if required (see advisor)**

**Electives (see advisor for course list) (18 hours)**

**Total 124 hours are required by the University of Arkansas for a degree.**

**IV. Admission requirements for Spring, Senior Year:**

**1. Earn a cumulative GPA of 2.5 or higher**

**2. Passing scores on Praxis I**

**3. Take and pass Praxis II**

**4. Successful interview with teacher education faculty in the Department of Rehabilitation, Human Resources and Communication Disorders.**

**Note: All students seeking licensure in the state of Arkansas are subject to a criminal background check. Forms for this procedure may be obtained at Peabody Hall, Room 117, at the State Department, or any police station, including the campus police. These background checks take up to six months to process; therefore, students are advised to complete and submit the**

**forms to the proper authorities six months in advance of actually applying for a license. Arkansas will not certify anyone who has been convicted of a felony.**

**Business Education Eight-Semester Degree Program**

**Students wishing to follow the eight-semester degree plan in Career and Technical Education with a concentration in Business Education should see page 42 in the Academic Regulations chapter for university requirements of the program.**

**Fall Semester 1**

**3 ENGL 1013 Composition I**

**3 †Fine Arts or Humanities**

**3 CIED 1002 Introduction to Education**

**1 CIED 1011 Introduction to Education: Practicum**

**6 Electives (MATH 1203 – If required)**

**MATH 1203 – If required**

**4 †Science with Lab**

**3 COMM 1313 Fundamentals of Communication**

**0 WCOB 1120 Computer Competency Requirement**

**CATE 1001 Practicum in Career and Technical Education**

**17 semester hours**

**Spring Semester 1**

**3 ENGL 1023 Composition II**

**3 COMM 1313 Fundamentals of Communication**

**3 †Fine Arts or Humanities**

**3 †U. S. History**

**3 †PSYC 2003 General Psychology**

**1 PEAC 1621 Fitness Concepts**

**3 ECON 2013 Prin of Macroeconomics**

**3 MATH 2053 Finite Math**

**16 semester hours**

**Fall Semester 2**

**3 ECON 2023 Prin of Microeconomics**

**1 ETEC 2001 Educational Technology**

**2 ETEC 2002L Educational Technology Lab**

**3 ENGL 2003 Advanced Composition (or exempt)**

**3 MATH 2053 Finite Math**

**3 †U. S. History**

**2 WCOB 1012 Legal Environment of Business**

**2 HLSC 1002 Wellness Concepts**

**4 †Science with Lab**

**17 semester hours**

**Spring Semester 2**

**3 WCOB 1023 Business Foundations**

**3 WCOB 1033 Data analysis and Interpretation**

**3 †Social Science (except PSYC 2003, ECON 2013/2023)**

**4 †Science with Lab**

**3 ENGL 2003 Advanced Composition (or exempt)**

**9 Electives**

**13-16 semester hours**

**15 semester hours**

**Fall Semester 3**

**3 CIED 3023 Survey of Exceptionalities**

**3 CIED 3033 Classroom Learning Theory**

**3 COMM 3703 Organizational Communication**

**3 ISYS 3000 level or above**

**3 ISYS 2263 Introduction to Information Systems Development**

**3 WCOB 2013 Markets and Consumers**

**15 semester hours**

**Spring Semester 3**

**3 †Fine Arts or Humanities**

**3 Business Electives**

**3 WCOB 2023 Production and Delivery of Goods and Services**

**3 WCOB 2043 Acquiring and Managing Financial Resources**

**3 MKTG 3433 Principles of Marketing or MGMT 3563 Mgmt.**

**Concepts/Organizational Behavior**

**3 CATE 480v Word Processing**

**3 Electives**

**15 semester hours**

**Fall Semester 4**

**3 CATE 4003 Professionalism**

**3 CATE 4013 Presentation Techniques Teaching Strategies**

**6 Business Electives**

**3 CATE 380v Supervised Work Experience**

**3 CATE 4023 Classroom Management**

**3 CATE 4033 Assessment/Program Evaluation**

**3 Electives**

**15 semester hours**

**Spring Semester 4**

**2 CATE 4122 Leadership Development**

**3 CATE 380v Supervised Work Experience**

**6 Business Electives**

**4 Electives**

**15 semester hours**

**1 CATE 4041 Lab Management**

**1 CATE 4051 Seminar**

**12 CATE 406V Teaching Internship**

**14 semester hours**

**†Core areas must be completed as outlined in Catalog of Studies, see page 40.**

**Family and Consumer Sciences Education concentration (FCSE)**

**Adviser: Cecelia Thompson**

**120 Graduate Education Building**

**479-575-2581**

**Students pursuing the Bachelor of Science in Education degree may select the family and consumer sciences education program concentration as a field of specialization in career and technical education. Requirements for initial licensure may be met by completion of the B.S.E. Completion of the B.S.E. will prepare students to teach family and consumer sciences at the junior high and secondary education level. Completion of the B.S.E. will prepare students to work in professional careers in the Cooperative Extension Service, business, industry, or social services.**

**Students must meet CATE teacher education admission requirements (See page --).**

**I. University Core Requirements (See page --): (38-41 hours)**

**Core Social Sciences must be PSYC 2003 General Psychology**

**Core Social Sciences must be HESC 1403 Lifespan Development**

**Core Social Sciences must be HESC 2413 Family Relations**

**4 hours Core Science must be a chemistry course**

**MATH 1203 College Algebra (or higher)**

**Every undergraduate student must meet the advanced composition requirement (See page --)**

**II. Professional Education (36 hours)**

**CATE 1001, Practicum in Career and Technical Education**

**CIED 3023 Survey of Exceptionalities**

CIED 3033 Classroom Learning Theory  
CATE 4003 Professionalism  
CATE 4013 Teaching Strategies  
CATE 4023 Classroom Management  
CATE 4033 Assessment/Program Evaluation  
CATE 4041 Lab Management  
ETEC 2001/2002L Educational Technology and Lab  
CATE 4051 Seminar  
CATE 406V Teaching Internship

### III. Technical Requirements (48-51 hours)

In addition to the general studies and the 35 hour Professional Education, the following courses are required for a concentration in family and consumer sciences education.

HLSC 1002 Wellness Concepts

PEAC 1621 Fitness Concepts

HESC 4453 Parenting and Family Dynamics

HESC 3423 Adolescent Development

Study of the Family

HESC 3443 Families in Crisis

HESC 4433 Family Interaction

Human Development

HESC 2403 Infant and Toddler Development

HESC 2433 Child Development

Consumer Economics

HESC 4753 Family Financial Management

Nutrition and Food

HESC 1213 Nutrition in Health

HESC 2113 Foods I

HESC 2123 Catering Management or

HESC 2203 Nutrition for Exercise and Sports

Textile and Clothing

HESC 1013 Introduction to Clothing Concepts

HESC 2053 Introduction to Textile Science

Management

HESC 3763L Family Resource Management Laboratory

Housing

CATE 480v Special Problems

Electives

Electives selected with advisor approval

Total 124 hours are required by the University of Arkansas for a degree.

### Technology Education concentration (TEED)

Advisor: Michael K. Daugherty

100 Graduate Education Building

479-575-5119

A Bachelor of Science in Education degree with a concentration in Technology Education is a licensure program that prepares one to teach technology, pre-engineering, or other technical subject matter at the high school, middle-level, or community college. Additionally, the program prepares one to enter mid-level technical/management careers in business and industry. The concentration is a specialized field of study within the Career and Technical Education program at the University of Arkansas.

### I. University Core Requirements (State minimum core and graduation requirements) pp. (35-38 hrs)

Mathematics concentration of core must include:

MATH 2043 Survey of Calculus

Science concentration of core must include:

CHEM 1103 University Chemistry

CHEM 1101L University Chemistry Lab



PHYS 2013 College Physics

PHYS 2011L College Physics Lab

Social Sciences concentration must include:

PSYC 2003 General Psychology

II. Technical Requirements (50-53 hours)

TEED 1103 The Nature of Technology

TEED 2103 Technology and Society

GNEG 1103 Introduction to Engineering

TEED 3103 Technological Research, Experimentation, & Trouble-shooting

TEED 4103 Engineering Design Capstone

GNEG 1122 Introduction to CAD

TEED 3303 Energy, Power, and Transportation

TEED 3203 Information and Communication Systems

INEG 2513 Manufacturing Systems Design/INEG 2510 Lab

CSCE 1012 College Computing Skills

COMM 3803 Basic Video Production

MEEG 1103 Introduction to Mechanical Engineering

BENG 1022 Biological Engineering Design Studio I

Technical Electives (14-17 hours)

III. Professional Education (36 hrs)

CATE 1001 Practicum in CATE

CIED 3023 Survey of Exceptionalities

CIED 3033 Classroom Learning Theory

CATE 4003 Professionalism

CATE 4013 Teaching Strategies

CATE 4023 Classroom Management

CATE 4033 Assessment/Program Evaluation

CATE 4041 Lab Management in CATE

ETEC 2001 Educational Technology

ETEC 2002L Educational Technology Lab

CATE 4051 Seminar

CATE 406V Teaching Internship (12 hours)

Total 124 hours required by the University of Arkansas for a degree.

IV. Admission Requirements (for Spring Semester Senior Year)

Internship Semester (Spring Semester/Senior Year) Admission Criteria:

1. Candidate must hold a cumulative GPA of 2.50 or higher

2. Candidate must have taken and passed the Praxis I examination during the previous semester or earlier

3. Candidate must have taken and passed the Praxis II content examination during the previous semester or earlier

4. Candidate must complete a successful "internship admission interview" with teacher education faculty in the department of Rehabilitation, Human Resources, and Communication Disorders. Note these interviews are scheduled with all senior students during the fall semester.

Note: All students seeking licensure in the State of Arkansas are subject to a criminal background check. Forms needed to complete this procedure may be obtained in Room 117 of Peabody Hall on the University of Arkansas campus. These forms may also be obtained from any police station (including the University of Arkansas Police station) or directly from the Arkansas State Department. These background checks take up to six months to process; therefore, students are advised to complete and submit the forms to the proper authorities at least six months in advance of graduation (or six months prior to applying for a teaching license). Arkansas will not grant a teaching license to anyone who has been convicted of a felony.

Competency-Based Teacher Development (CBTD) Concentration

This concentration should be selected by incumbent trade and technical instructors who desire to obtain a Bachelor of Science in Education degree or become certified as an instructor in the post-secondary vocational and secondary school systems. CBTD concentration utilizes the Competency-Based Education on-line modules.

### Residency Requirement for CBTD Concentration

The residency requirement for the CBTD concentration is met through the completion of on-line modules.

### Human Resource Development concentration (HRDV)

Advisor: Phil Gerke

217 Graduate Education Building

479-575-4690

Advisor: Dale E. Thompson

111 Graduate Education Building

479-575-6640

HRDV curriculum focuses on developing the “people” skills and effective development strategies useful for management, supervision, employee/technical training, consultation, or instructional design. The plan of study is designed to accelerate degree-completion for working adults by offering credit for knowledge gained by experience. Courses are offered by distance learning at selected campuses around Arkansas on a two-year rotation plan in cooperation with the UA Division of Continuing Education. Undergraduates also obtain a solid academic base to pursue a graduate degree. This is not a teacher preparation concentration.

This concentration is open only to adult learners who have earned at least 40 hours of General Education requirements, who are employed full time, and have at least five years of work experience. Departmental approval is mandated before taking any of the required upper-level courses in this concentration. Because of this admission requirement this major is not an option for the Act 1014 eight semester plan. However a recommended 4 semester plan and additional information regarding this program can be found on the College web site.

### University Core and HRDV General Education Requirements (55 hours)

PSYC 2003 General Psychology

Oral Communication: Fundamentals or public speaking

Health/Wellness/Fitness/Safety

Computers/Media: application software courses, or exempted with documented proficiency

Electives or as needed to total 55 hours/credits of general education

### HRDV Technical Requirements 33 hours

Required Course: VAED 3403 Employment Law in Human Resource Development.

The remaining 30 hours of HRD technical requirements may be satisfied in a variety of ways. Appropriate occupation-related credits from UA coursework, transfers from accredited institutions of higher learning (within limits), or from College Level Examination Program (CLEP) exams may be applied.

Credit for work experience and experiential learning may be applied to HRD technical requirements. VOED 200V-204V credit is earned through selected National Occupational Competency Testing Institute (NOCTI) assessments.

After completing VAED 3503 Workforce Behavior course, credit may be earned through VAED 450V Portfolio

Development for documented experiential or occupational learning based on a standardized format as suggested by the Council for the Advancement of Experiential Learning (CAEL). Credit for certain occupational training or professional certifications may also be earned using the American Council on Education (ACE) guidelines.

After the initial 12-hour HRDV Internship requirement has been met, up to 12 additional credits of ITED 459V may also be applied to HRDV Technical requirements.

HRDV Professional Courses (24 hours): taught in a two-year rotation of weekend and Web-based distance learning classes VAED 3113, VAED 3123, VAED 3133, VAED 3213, VAED 4113, VAED 4133, VAED 4213, VAED 4233

### HRDV Internship Requirements (12 hours)

ITED 459V, HRDV Internship: practical application of HRD theory and concepts in the workplace

Total 124 hours are required by the University of Arkansas for a degree.

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

PROGRAM INVENTORY/DARS

PGRM \_\_\_\_\_ SUBJ \_\_\_\_\_ CIP \_\_\_\_\_ CRTS \_\_\_\_\_  
DGRE \_\_\_\_\_ PGCT \_\_\_\_\_ OFFC&CRTY VALID \_\_\_\_\_

REPORTING CODES

PROG. DEF. \_\_\_\_\_ REQ. DEF. \_\_\_\_\_  
Initials \_\_\_\_\_ Date \_\_\_\_\_

**Distribution**

Notification to:

- (1) College (2) Department (3) Admissions (4) Institutional Research (5) Continuing Education (6) Graduate School  
(7) Treasurer (8) Undergraduate Program Committee Initials \_\_\_\_\_ Date \_\_\_\_\_

## ATTACHMENT 2C

### LETTER OF NOTIFICATION – 1

#### NAME CHANGE OF EXISTING CERTIFICATE, DEGREE, MAJOR, OPTION OR ORGANIZATIONAL UNIT

(No change in curriculum, emphasis, or organizational structure)

1. **Institution submitting request:** University of Arkansas
2. **Contact person/title:** Barbara Hinton  
Department Head  
Department of Rehabilitation, Human  
Resources and Communication  
Disorders
3. **Phone number/e-mail address:** 479-575-4758  
[Bhinton@UARK.EDU](mailto:Bhinton@UARK.EDU)
4. **Proposed effective date:** Spring 2007
5. **Current title of degree/certificate program:** Bachelor of Science in Vocational  
Education
6. **Current title of major or option:** The degree program includes four  
concentrations: Business Education,  
Family and Consumer Science,  
Technology Education, and  
Performance-based Teacher Education.
7. **Current title of organizational unit:** Department of Rehabilitation, Human  
Resources and Communication  
Disorders
8. **Proposed name of certificate/degree:** Bachelor of Science in Career and  
Technical Education
9. **Proposed name of major or option:** The degree program includes four  
concentrations: Business Education,  
Family and Consumer Science,  
Technology Education, and  
Competency-based Teacher  
Development.
10. **Proposed Name of organizational unit:** (No change) Department of  
Rehabilitation, Human Resources and  
Communication Disorders
11. **CIP Code:** 13.1320
12. **Degree Code:** 4110

**Reason for proposed consolidation (reconfiguration):** The existing degree program in vocational education with concentrations in business education, family and consumer science, and technology education has recently transitioned from a graduate level MAT program to an undergraduate BSE program in an effort to better serve student clients. Given the significant curricular changes incorporated into this recent change and state and national trends away from the term “vocational education,” the faculty voted to replace the title with the more current and widely used title “career and technical education.” This title will also be reflected in the “alpha” code used to identify courses. The alpha code will change from “VOED” to “CATE.” This change will assist in drawing distinctions between the non-licensure programs in Workforce Development and Vocational and Adult Education courses in the graduate program.

**Board of Trustees Approval Date:**

**Chief Academic Officer:**

**Date:**

# ATTACHMENT 3A

## ADD, CHANGE OR DELETE PROGRAM OR UNIT

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

### SECTION I: Approvals

Department / Program Chair	Date Submitted	Faculty Senate Chair	Date
College Dean	Date	Provost	Date
Undergraduate Program Committee Chair	Date	Board of Trustees Approval Date	
Graduate Council Chair	Date	Arkansas Higher Education Coordinating Board Approval Date	

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

Academic Unit:  Major/Field of Study  Minor  Other Unit \_\_\_\_\_

Level:  Undergraduate  Graduate  Law Effective Catalog Year \_\_\_\_\_

Current Name Computer Science

College, School, Division ENGR Department Code CSCE

Current Code (6 digit Alpha) CSCEBS Proposed Code (6 digit Alpha) \_\_\_\_\_  
Prior approval from the Office of the Registrar is required.

Interdisciplinary Program CIP Code 11.0101  
Prior assignment from Office of Institutional Research is required.

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

### SECTION III: Add a New Program/Unit

For new program proposals, complete Sections II and VII and use as a cover sheet for a full program proposal as described in 'Criteria and Procedures for Preparing Proposals for New Programs in Arkansas.' ADHE <<http://www.adhe.arknet.edu.aadept.html>>.

### SECTION IV: Eliminate an Existing Program/Unit

Code/Name \_\_\_\_\_ Effective Catalog Year \_\_\_\_\_

No new students admitted to program after Term: \_\_\_\_ Year: \_\_\_\_\_

Allow students in program to complete under this program until Term: \_\_\_\_ Year: \_\_\_\_\_

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

Insert here a statement of the exact changes to be made: CENG 2133, Assembly Language and CENG 3213, Computer Organization are being combined into one new course with the proposed number/name - CENG 2213, Computer Organization. The courses are being combined to reduce the overlap of material presented. Computer Science is shifting 3 hours of free elective to maintain 125 hours in the program.

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 justification for combining these two courses is to reduce the amount of overlap and to update the subject material. This change will also effect the Computer Engineering degree program and the Computer Science minor offered through the Fulbright College. Program forms for both are being submitted.**

## **SECTION VII: Catalog Text and Format**

*Insert the current catalog text and the proposed catalog text. Be sure that the proposed text includes all the elements listed below in order. Do not include university requirements or college requirements. Do not substitute a sample schedule for an explicit statement of requirements. Use standard terms and vocabulary (see Academic Policy 1621.10).*

**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.**

### **Old Catalog Text -**

### **COMPUTER SCIENCE**

### **AND COMPUTER ENGINEERING (CSCE)**

**Jerry Yeargan**

**Head of the Department**

**311 Engineering Hall**

**479-575-6197**

### **Distinguished Professor Yeargan**

**• Professors Crisp, Deaton, Lala, Skeith, Sohraby, Starling, Thompson (C.)**

**• Associate Professors Apon, Beavers, Li, Lusth, Panda, Parkerson**

**• Assistant Professors Di, Hexmoor, Thompson (D.)**

**• Instructors Baker, Holmes, Wiggins**

**The faculty of the Computer Science and Computer Engineering department is engaged in multidisciplinary academic research, course offerings, and student projects in areas such as: high performance and scientific computing, grid computing, agents, middleware, networking, data security, nanotechnology, graph theory, and subsystem design. Requirements for the Bachelor of Arts degree are listed in the Fulbright College of Arts and Sciences section of this catalog.**

**The educational objectives of the department are to produce graduates who are recruited in a competitive market and make valuable contributions to a wide variety of industries, particularly in computer and information technology, succeed in**

graduate or professional studies; pursue life-long learning and continued professional development; and undertake leadership roles in their profession, in their communities, and in the global society.

Since almost all of today's complex systems encompass hardware and software elements, the computer engineering degree (CENG) has required sequences of courses in both hardware and software aspects of computer applications and design. Computer engineering graduates must acquire the skills required to design, build, and test complex digital systems. At the advanced level, students are exposed to hands-on experience with open-ended problems with opportunities for research and design.

A degree in computer science (CSCE) provides unique diversity in career choices. Computer science graduates can design, implement, or manage computer systems, as well as adapt computers to new applications. Computer science core courses include the fundamentals of programming concepts, data structures, operating systems, algorithms, formal languages, database management systems, and programming languages.

Humanities and social science electives are selected from courses approved by the College of Engineering. The Undergraduate Handbook has a list of approved basic science, mathematics, humanities/social science, and technical electives. Any course not included in these lists requires faculty approval.

The following section contains the list of courses required for the Bachelor of Science in Computer Engineering and Computer Science degrees and a suggested sequence. Not all courses are offered every semester, so students who deviate from the suggested sequence must pay careful attention to course scheduling and course prerequisites.

### Computer Engineering Program

#### Freshman Year - First Semester

4 MATH 2554 Calculus I

3 CHEM 1103 University Chemistry I

1 CHEM 1101L University Chemistry I Lab

3 CSCE 1113 Programming Foundations I

1 CSCE 1111L Programming Foundations I Lab

3 ENGL 1013 English Composition

15 semester hours

#### Second Semester

4 MATH 2564 Calculus II

4 PHYS 2054 University Physics I

0 PHYS 2050L University Physics I Lab

3 CSCE 1123 Programming Foundations II

1 CSCE 1121L Programming Foundations II Lab

3 ENGL 1023 Composition II

3 MATH 2103 Discrete Math

18 semester hours

#### Sophomore Year - First Semester

4 MATH 2574 Calculus III

4 PHYS 2074 University Physics II

0 PHYS 2070L University Physics II Lab

3 CENG 2113 Digital Techniques I

0 CENG 2110L Digital Techniques I Lab

3 CSCE 2143 Data Structures

3 Humanities/social sciences elective

17 semester hours

#### Second Semester

4 MATH 3404 Differential Equations

3 ELEG 3933 Circuits and Electronics

3 CENG 2133 Assembly Language

3 CENG 2123 Digital Techniques II

0 CENG 2120L Digital Techniques II Lab

3 Basic science elective

16 semester hours

#### Junior Year - First Semester

##### Rising Junior Exam

3 CENG 3953 Logic Synthesis-VHDL



3 Technical Elective  
3 CSCE 3313 Algorithms  
3 History/Government requirement  
3 Humanities/social sciences elective  
15 semester hours

Second Semester

Advanced English Exam  
3 Free Elective  
3 PHIL 3103 Ethics and the Professions  
3 Technical Elective  
3 CENG 3213 Computer Organization  
3 STAT 3013 Introduction to Probability and Statistics  
(INEG 3313 may be substituted)  
15 semester hours

Senior Year - First Semester

3 CSCE 4513 Software Engineering  
1 CENG 4571 Senior Design Project I  
3 CSCE 4413 Operating Systems  
3 Technical electives/hardware  
3 Technical electives/software  
3 Humanities/social sciences elective  
16 semester hours

Second Semester

3 CENG 4973 Senior Design Project II  
3 CENG 4213 Intro. to Computer Architecture  
3 Technical electives/hardware  
3 Technical electives/software  
3 Humanities/social sciences elective (3000+)  
15 semester hours  
127 Total hours required

Computer Science Program

Freshman Year - First Semester

4 MATH 2554 Calculus I  
4 PHYS 2054 University Physics I\*  
0 PHYS 2050L University Physics I lab  
3 CSCE 1113 Programming Foundations I  
1 CSCE1111L Programming Foundations I Lab  
3 ENGL 1013 English Composition  
15 semester hours

Second Semester

4 MATH 2564 Calculus II  
4 PHYS 2074 University Physics II\*  
0 PHYS 2070 University Physics II Lab  
3 CSCE 1123 Programming Foundations II  
1 CSCE 1121L Programming Foundations II Lab  
3 ENGL 1023 Composition II  
3 MATH 2103 Discrete Mathematics  
18 semester hours

Sophomore Year - First Semester

3 MATH 3083 Linear Algebra  
3 CHEM 1103 University Chemistry I\*  
1 CHEM 1101 University Chemistry I Lab  
3 CENG 2113 Digital Techniques I  
0 CENG 2110L Digital Techniques I Lab

3 CSCE 2143 Data Structures  
3 Humanities/Social sciences elective  
16 semester hours

Second semester

3 MATH 3103, Combinatorics  
3 Free elective  
3 CENG 2133, Assembly Language  
3 Humanities/social sciences elective  
3 History/government requirement  
15 semester hours

Junior Year - First semester

Rising Junior Exam  
3 STAT 3013 Intro to Probability and Statistics  
(INEG) 3313 can be substituted)  
3 CENG 3213 Computer Organization  
3 CSCE 3313 Algorithms  
3 Humanities/social sciences elective  
3 Humanities/social sciences elective  
15 semester hours

Second semester

Advanced English Exam  
3 CSCE 4413 Operating Systems  
3 CSCE 4313 Programming Languages  
3 Free elective  
3 Free elective  
3 PHIL 3103 Ethics & the Profession  
15 semester hours

Senior Year - First semester

1 CSCE 4561 CS Capstone I  
3 CSCE 4513 Software Engineering  
3 CSCE 4523 Database Management  
3 CSCE elective  
3 Free elective  
3 Humanities/social sciences elective  
16 semester hours

Second semester

3 CSCE 4963 CS Capstone II  
3 CSCE elective  
3 CSCE 4323 Formal Languages  
3 Free elective  
3 Humanities/social sciences elective (3000+)  
15 semester hours  
125 Total hours required

\* Computer Science majors are required to take 12 hours of natural science consisting of either (PHYS 2054/2050L, PHYS 2074/2070L, and CHEM 1103/1101L); OR (CHEM 1103/1101L, CHEM 1123/1121L, and PHYS 2054/2050L).

Degree Program Changes

Students must meet all requirements of their degree programs and are expected to keep informed concerning current regulations, policies, and program requirements in their fields of study. Changes made in curriculum at a level beyond that at which a student is enrolled might become graduation requirements for that student. Changes made in the curriculum at a level lower than the one at which a student is enrolled are not required of that student. Students should consult their departmental adviser for additional information.

Requirements for Departmental Honors

## Computer Science and Computer Engineering

The Honors Program in Computer Science and Computer Engineering is designed for the superior student and is intended to help the student develop a more comprehensive view of Computer Science and Computer Engineering. The program provides a vehicle for the recognition of achievements of work beyond the usual course of study. Higher degree distinctions are recommended only in truly exceptional cases and are based upon the candidate's whole program of honors studies. The department considers the following requirements necessary for graduation with honors:

1. The candidate must satisfy the requirements set forth by the College of Engineering.

2. A student must obtain at least a 3.50 grade-point average in required Computer Engineering and/or Computer Science courses.

3. The student must complete 7 hours of Honors credit in the major, which includes 4 hours of Honors Thesis taken as two successive semesters of CSCE 4912H or CENG 4912H and 3 hours of non-thesis.

### New Catalog Text -

#### COMPUTER SCIENCE

#### AND COMPUTER ENGINEERING (CSCE)

Jerry Yeargan

Head of the Department

311 Engineering Hall

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• Distinguished Professor Yeargan

• Professors Crisp, Deaton, Skeith, Thompson (C.)

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• Assistant Professors Di, Hexmoor

• Instructor Baker

§ Emeritus Professor Starling

§ Emeritus Instructor Johnson

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Since almost all of today's complex systems encompass hardware and software elements, the computer engineering degree (CENG) has required sequences of courses in both hardware and software aspects of computer applications and design. Computer engineering graduates must acquire the skills required to design, build, and test complex digital systems. At the advanced level, students are exposed to hands-on experience with open-ended problems with opportunities for research and design. The CE program culminates in a senior design project that is a two-semester consecutive course with the first semester forming teams and developing a project proposal. The second semester expands the project to encompass the development, implementation, and presentation of the final project.

A degree in computer science (CSCE) provides unique diversity in career choices. Computer science graduates can design, implement, or manage computer systems, as well as adapt computers to new applications. Computer science core courses include the fundamentals of programming concepts, data structures, operating systems, algorithms, formal languages, database management systems, and programming languages. The CS program culminates in a capstone project that is a two-semester consecutive course with the first semester forming teams and developing a project proposal. The second semester expands the project to encompass the development, implementation, and presentation of the final project.

Humanities and social science electives are selected from courses approved by the College of Engineering. The Undergraduate Handbook has a list of approved basic science, mathematics, and technical electives. Any course not included in these lists requires faculty approval.

The following section contains the list of courses required for the Bachelor of Science in Computer Engineering and Computer Science degrees and a suggested sequence

### Bachelor of Science In Computer Engineering (B.S.Cmp.E.)

#### Freshman Year - First Semester

4 MATH 2554 Calculus I

3 CHEM 1103 University Chemistry

1 CHEM 1101L University Chemistry Lab

3 CSCE 1113 Programming Foundations I

**1 CSCE 1111L Programming Foundations I Lab**

**3 ENGL 1013 English Composition**

**15 semester hours**

**Second Semester**

**4 MATH 2564 Calculus II**

**4 PHYS 2054 University Physics I**

**0 PHYS 2050L University Physics I Lab**

**3 CSCE 1123 Programming Foundations II**

**1 CSCE 1121L Programming Foundations II Lab**

**3 ENGL 1023 Composition II**

**3 MATH 2103 Discrete Math**

**18 semester hours**

**Sophomore Year - First Semester**

**4 MATH 2574 Calculus III**

**4 PHYS 2074 University Physics II**

**0 PHYS 2070L University Physics II Lab**

**3 CENG 2113 Digital Techniques I**

**0 CENG 2110L Digital Techniques I Lab**

**3 CSCE 2143 Data Structures**

**3 Humanities/social sciences elective**

**17 semester hours**

**Second Semester**

**4 MATH 3404 Differential Equations**

**3 ELEG 3933 Circuits and Electronics**

**3 CENG 2213 Computer Organization**

**3 CENG 2123 Digital Techniques II**

**0 CENG 2120L Digital Techniques II Lab**

**3 Basic science elective**

**16 semester hours**

**Junior Year - First Semester**

**Rising Junior Exam**

**3 CENG 3953 Logic Synthesis-VHDL**

**3 CSCE 3313 Algorithms**

**3 Technical Elective**

**3 History/Government requirement**

**3 Humanities/social sciences elective**

**15 semester hours**

**Second Semester**

**Advanced English Exam**

**3 CSCE 3613 Operating Systems**

**3 CSCE 3513 Software Engineering**

**3 PHIL 3103 Ethics and the Professions**

**3 Technical Elective**

**3 STAT 3013 Introduction to Probability and Statistics**

**(INEG 3313 may be substituted)**

**15 semester hours**

**Senior Year - First Semester**

**1 CENG 4571 Senior Design Project I**

**3 Technical electives/hardware**

**3 Technical electives/software**

**3 Humanities/social sciences elective**

**3 Free Elective**

**13 semester hours**

Second Semester

3 CENG 4973 Senior Design Project II  
3 CENG 4213 Intro. to Computer Architecture  
3 Technical electives/hardware  
3 Technical electives/software  
3 Humanities/social sciences elective (3000+)  
15 semester hours  
124 Total hours required

Bachelor of Science In Computer Science (B.S.C.S.)

Freshman Year - First Semester

4 MATH 2554 Calculus I  
4 PHYS 2054 University Physics I\*  
0 PHYS 2050L University Physics I Lab  
3 CSCE 1113 Programming Foundations I  
1 CSCE 1111L Programming Foundations I Lab  
3 ENGL 1013 English Composition  
15 semester hours

Second Semester

4 MATH 2564 Calculus II  
4 PHYS 2074 University Physics II\*  
0 PHYS 2070L University Physics II Lab  
3 CSCE 1123 Programming Foundations II  
1 CSCE 1121L Programming Foundations II Lab  
3 ENGL 1023 Composition II  
3 MATH 2103 Discrete Mathematics  
18 semester hours

Sophomore Year - First Semester

3 MATH 3083 Linear Algebra  
3 CHEM 1103 University Chemistry I\*  
1 CHEM 1101L University Chemistry I Lab  
3 CENG 2113 Digital Techniques I  
0 CENG 2110L Digital Techniques I Lab  
3 CSCE 2143 Data Structures  
3 Humanities/Social sciences elective  
16 semester hours

Second semester

3 MATH 3103, Combinatorics  
3 Free elective  
3 CENG 2213, Computer Organization  
3 Humanities/social sciences elective  
3 History/government requirement  
15 semester hours

Junior Year - First semester

Rising Junior Exam  
3 STAT 3013 Intro to Probability and Statistics  
(INEG) 3313 can be substituted)  
3 CS Elective  
3 CSCE 3313 Algorithms  
3 Humanities/social sciences elective  
3 Humanities/social sciences elective  
15 semester hours

Second semester

Advanced English Exam  
3 CSCE 3613 Operating Systems  
3 CSCE 3513 Software Engineering

3 Free elective  
3 Free elective  
3 PHIL 3103 Ethics & the Profession  
15 semester hours

Senior Year - First semester  
1 CSCE 4561 CS Capstone I  
3 CSCE 4313 Programming Languages  
3 CSCE 4523 Database Management  
3 CS elective  
3 Free elective  
3 Humanities/social sciences elective  
16 semester hours

Second semester  
3 CSCE 4963 CS Capstone II  
3 CS elective  
3 CSCE 4323 Formal Languages  
3 Free elective  
3 Humanities/social sciences elective (3000+)  
15 semester hours  
125 Total hours required

\* Computer Science majors are required to take 12 hours of natural science consisting of either PHYS 2054/2050L, PHYS 2074/2070L and CHEM 1103/1101L; or CHEM 1103/1101L, CHEM 1123/1121L and PHYS 2054/2050L.

#### Degree Program Changes

Students must meet all requirements of their degree programs and are expected to keep informed concerning current regulations, policies, and program requirements in their fields of study. Changes made in curriculum at a level beyond that at which a student is enrolled might become graduation requirements for that student. Changes made in the curriculum at a level lower than the one at which a student is enrolled are not required of that student. Students should consult their departmental adviser for additional information.

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##### Computer Science and Computer Engineering

The Honors Program in Computer Science and Computer Engineering is designed for the superior student and is intended to help the student develop a more comprehensive view of Computer Science and Computer Engineering. The program provides a vehicle for the recognition of achievements of work beyond the usual course of study. Higher degree distinctions are recommended only in truly exceptional cases and are based upon the candidate's whole program of honors studies. The department considers the following requirements necessary for graduation with honors:

1. The candidate must satisfy the requirements set forth by the College of Engineering.
2. A student must obtain at least a 3.50 grade-point average in required Computer Engineering and/or Computer Science courses.
3. The student must complete 7 hours of Honors credit in the major, which includes 4 hours of Honors Thesis taken as two successive semesters of CSCE 4912H or CENG 4912H and 3 hours of non-thesis.

Requirements for the Bachelor of Arts degree with a Major In Computer Science (B.A.C.S): At least 30 hours In computer science Including CSCE 1113/1111L, CSCE 1123/1121L, CSCE 2143, CSCE 3313, and CSCE 4313 plus 13 hours of electives to be selected from a list of CSCE courses numbered 3000 or higher offered by the department.

The mathematics requirements of the degree are MATH 2043 or MATH 2554, MATH 2103, and MATH 3103. The remaining courses should meet the requirements for a B.A. degree listed In the Fulbright College section.

Requirements for a Minor In Computer Science: CSCE 1113/1111L, CSCE 1123/1121L, CSCE 2143, CSCE 3313, and either CENG 2213 or CSCE 4313.

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

PROGRAM INVENTORY/DARS

PGRM \_\_\_\_\_ SUBJ \_\_\_\_\_ CIP \_\_\_\_\_ CRTS \_\_\_\_\_

1622.20A p/vcaa 10/1/00  
CSCEBS.doc

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DGRE \_\_\_\_\_

PGCT \_\_\_\_\_

OFFC&CRTY VALID \_\_\_\_\_

REPORTING CODES

PROG. DEF. \_\_\_\_\_

REQ. DEF.

Initials \_\_\_\_\_

Date \_\_\_\_\_

**Distribution**

Notification to:

(1) College  
(7) Treasurer

(2) Department  
(8) Undergraduate Program Committee

(3) Admissions

(4) Institutional Research

(5) Continuing Education  
Initials \_\_\_\_\_ Date \_\_\_\_\_

(6) Graduate School

ATTACHMENT 3B

ADD, CHANGE OR DELETE PROGRAM OR UNIT

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

SECTION I: Approvals

Department / Program Chair Date Submitted Faculty Senate Chair Date
College Dean Date Provost Date
Undergraduate Program Committee Chair Date Board of Trustees Approval Date
Graduate Council Chair Date Arkansas Higher Education Coordinating Board Approval Date

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

Academic Unit: [X] Major/Field of Study [ ] Minor [ ] Other Unit
Level: [X] Undergraduate [ ] Graduate [ ] Law Effective Catalog Year Fall 2006
Current Name Computer Engineering
College, School, Division ENGR Department Code CSCE
Current Code (6 digit Alpha) CENGBS Proposed Code (6 digit Alpha)
[ ] Interdisciplinary Program CIP Code 14.0901
Proposed Name
When a program name is changed, enrollment of current students reflects the new name.

SECTION III: Add a New Program/Unit

[ ] For new program proposals, complete Sections II and VII and use as a cover sheet for a full program proposal as described in 'Criteria and Procedures for Preparing Proposals for New Programs in Arkansas.' ADHE <http://www.adhe.arknet.edu.aadept.html>.

SECTION IV: Eliminate an Existing Program/Unit

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

SECTION V: Proposed Changes to an Existing Program

Insert here a statement of the exact changes to be made: CENG 2133, Assembly Language and CENG 3213, Computer Organization are being combined into one new course with the proposed number/name - CENG 2213, Computer Organization. The courses are being combined to reduce the overlap of material presented. This course change will reduce the number of hours required in the program to 124.

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.)
[X] 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.)*

**This change will also effect the Computer Science degree program and the Computer Science minor offered through the Fulbright College. Program forms for both are being submitted.**

#### **SECTION VII: Catalog Text and Format**

*Insert the current catalog text and the proposed catalog text. Be sure that the proposed text includes all the elements listed below in order. Do not include university requirements or college requirements. Do not substitute a sample schedule for an explicit statement of requirements. Use standard terms and vocabulary (see Academic Policy 1621.10).*

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

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- 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.**

#### **Old Catalog Text -**

#### **COMPUTER SCIENCE AND COMPUTER ENGINEERING (CSCE)**

**Jerry Yeargan  
Head of the Department  
311 Engineering Hall  
479-575-6197**

#### **Distinguished Professor Yeargan**

- **Professors Crisp, Deaton, Lala, Skeith, Sohraby, Starling, Thompson (C.)**
- **Associate Professors Apon, Beavers, Li, Lusth, Panda, Parkerson**
- **Assistant Professors Di, Hexmoor, Thompson (D.)**
- **Instructors Baker, Holmes, Wiggins**

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The following section contains the list of courses required for the Bachelor of Science in Computer Engineering and Computer Science degrees and a suggested sequence. Not all courses are offered every semester, so students who deviate from the suggested sequence must pay careful attention to course scheduling and course prerequisites.

### Computer Engineering Program

#### Freshman Year - First Semester

4 MATH 2554 Calculus I

3 CHEM 1103 University Chemistry I

1 CHEM 1101L University Chemistry I Lab

3 CSCE 1113 Programming Foundations I

1 CSCE 1111L Programming Foundations I Lab

3 ENGL 1013 English Composition

15 semester hours

#### Second Semester

4 MATH 2564 Calculus II

4 PHYS 2054 University Physics I

0 PHYS 2050L University Physics I Lab

3 CSCE 1123 Programming Foundations II

1 CSCE 1121L Programming Foundations II Lab

3 ENGL 1023 Composition II

3 MATH 2103 Discrete Math

18 semester hours

#### Sophomore Year - First Semester

4 MATH 2574 Calculus III

4 PHYS 2074 University Physics II

0 PHYS 2070L University Physics II Lab

3 CENG 2113 Digital Techniques I

0 CENG 2110L Digital Techniques I Lab

3 CSCE 2143 Data Structures

3 Humanities/social sciences elective

17 semester hours

#### Second Semester

4 MATH 3404 Differential Equations

3 ELEG 3933 Circuits and Electronics

3 CENG 2133 Assembly Language

3 CENG 2123 Digital Techniques II

0 CENG 2120L Digital Techniques II Lab

3 Basic science elective

16 semester hours

#### Junior Year - First Semester

##### Rising Junior Exam

3 CENG 3953 Logic Synthesis-VHDL  
3 Technical Elective  
3 CSCE 3313 Algorithms  
3 History/Government requirement  
3 Humanities/social sciences elective  
15 semester hours

Second Semester

Advanced English Exam  
3 Free Elective  
3 PHIL 3103 Ethics and the Professions  
3 Technical Elective  
3 CENG 3213 Computer Organization  
3 STAT 3013 Introduction to Probability and Statistics  
(INEG 3313 may be substituted)  
15 semester hours

Senior Year - First Semester

3 CSCE 4513 Software Engineering  
1 CENG 4571 Senior Design Project I  
3 CSCE 4413 Operating Systems  
3 Technical electives/hardware  
3 Technical electives/software  
3 Humanities/social sciences elective  
16 semester hours

Second Semester

3 CENG 4973 Senior Design Project II  
3 CENG 4213 Intro. to Computer Architecture  
3 Technical electives/hardware  
3 Technical electives/software  
3 Humanities/social sciences elective (3000+)  
15 semester hours  
124 Total hours required

Computer Science Program

Freshman Year - First Semester

4 MATH 2554 Calculus I  
4 PHYS 2054 University Physics I\*  
0 PHYS 2050L University Physics I lab  
3 CSCE 1113 Programming Foundations I  
1 CSCE1111L Programming Foundations I Lab  
3 ENGL 1013 English Composition  
15 semester hours

Second Semester

4 MATH 2564 Calculus II  
4 PHYS 2074 University Physics II\*  
0 PHYS 2070 University Physics II Lab  
3 CSCE 1123 Programming Foundations II  
1 CSCE 1121L Programming Foundations II Lab  
3 ENGL 1023 Composition II  
3 MATH 2103 Discrete Mathematics  
18 semester hours

Sophomore Year - First Semester

3 MATH 3083 Linear Algebra  
3 CHEM 1103 University Chemistry I\*  
1 CHEM 1101 University Chemistry I Lab  
3 CENG 2113 Digital Techniques I

0 CENG 2110L Digital Techniques I Lab  
3 CSCE 2143 Data Structures  
3 Humanities/Social sciences elective  
16 semester hours

Second semester

3 MATH 3103, Combinatorics  
3 Free elective  
3 CENG 2133, Assembly Language  
3 Humanities/social sciences elective  
3 History/government requirement  
15 semester hours

Junior Year - First semester

Rising Junior Exam  
3 STAT 3013 Intro to Probability and Statistics  
(INEG) 3313 can be substituted)  
3 CENG 3213 Computer Organization  
3 CSCE 3313 Algorithms  
3 Humanities/social sciences elective  
3 Humanities/social sciences elective  
15 semester hours

Second semester

Advanced English Exam  
3 CSCE 4413 Operating Systems  
3 CSCE 4313 Programming Languages  
3 Free elective  
3 Free elective  
3 PHIL 3103 Ethics & the Profession  
15 semester hours

Senior Year - First semester

1 CSCE 4561 CS Capstone I  
3 CSCE 4513 Software Engineering  
3 CSCE 4523 Database Management  
3 CSCE elective  
3 Free elective  
3 Humanities/social sciences elective  
16 semester hours

Second semester

3 CSCE 4963 CS Capstone II  
3 CSCE elective  
3 CSCE 4323 Formal Languages  
3 Free elective  
3 Humanities/social sciences elective (3000+)  
15 semester hours  
127 Total hours required

\*Computer Science majors are required to take 12 hours of natural science consisting of either (PHYS 2054/2050L, PHYS 2074/2070L, and CHEM 1103/1101L); OR (CHEM 1103/1101L, CHEM 1123/1121L, and PHYS 2054/2050L).

Degree Program Changes

Students must meet all requirements of their degree programs and are expected to keep informed concerning current regulations, policies, and program requirements in their fields of study. Changes made in curriculum at a level beyond that at which a student is enrolled might become graduation requirements for that student. Changes made in the curriculum at a level lower than the one at which a student is enrolled are not required of that student. Students should consult their departmental adviser for additional information.

## Requirements for Departmental Honors

### Computer Science and Computer Engineering

The Honors Program in Computer Science and Computer Engineering is designed for the superior student and is intended to help the student develop a more comprehensive view of Computer Science and Computer Engineering. The program provides a vehicle for the recognition of achievements of work beyond the usual course of study. Higher degree distinctions are recommended only in truly exceptional cases and are based upon the candidate's whole program of honors studies.

The department considers the following requirements necessary for graduation with honors:

1. The candidate must satisfy the requirements set forth by the College of Engineering.

2. A student must obtain at least a 3.50 grade-point average in required Computer Engineering and/or Computer Science courses.

3. The student must complete 7 hours of Honors credit in the major, which includes 4 hours of Honors Thesis taken as two successive semesters of CSCE 4912H or CENG 4912H and 3 hours of non-thesis.

### New Catalog Text -

#### COMPUTER SCIENCE

#### AND COMPUTER ENGINEERING (CSCE)

Jerry Yeargan

Head of the Department

311 Engineering Hall

479-575-6197

• Distinguished Professor Yeargan

• Professors Crisp, Deaton, Skeith, Thompson (C.)

• Associate Professors Apon, Beavers, Li, Lusth, Panda, Parkerson, Thompson (D.)

• Assistant Professors Di, Hexmoor

• Instructor Baker

§ \_\_\_\_\_ Emeritus Professor Starling

§ \_\_\_\_\_ Emeritus Instructor Johnson

The faculty of the Computer Science and Computer Engineering department is engaged in multidisciplinary academic research, course offerings, and student projects in areas such as: high performance and scientific computing, grid computing, agents, middleware, networking, data security, nanotechnology, graph theory, and subsystem design.

The educational objectives of the department are to produce graduates who are recruited in a competitive market and make valuable contributions to a wide variety of industries, particularly in computer and information technology; succeed in graduate or professional studies; pursue life-long learning and continued professional development; and undertake leadership roles in their profession, in their communities, and in the global society.

Since almost all of today's complex systems encompass hardware and software elements, the computer engineering degree (CENG) has required sequences of courses in both hardware and software aspects of computer applications and design. Computer engineering graduates must acquire the skills required to design, build, and test complex digital systems. At the advanced level, students are exposed to hands-on experience with open-ended problems with opportunities for research and design. The CE program culminates in a senior design project that is a two-semester consecutive course with the first semester forming teams and developing a project proposal. The second semester expands the project to encompass the development, implementation, and presentation of the final project.

A degree in computer science (CSCE) provides unique diversity in career choices. Computer science graduates can design, implement, or manage computer systems, as well as adapt computers to new applications. Computer science core courses include the fundamentals of programming concepts, data structures, operating systems, algorithms, formal languages, database management systems, and programming languages. The CS program culminates in a capstone project that is a two-semester consecutive course with the first semester forming teams and developing a project proposal. The second semester expands the project to encompass the development, implementation, and presentation of the final project.

Humanities and social science electives are selected from courses approved by the College of Engineering. The Undergraduate Handbook has a list of approved basic science, mathematics, and technical electives. Any course not included in these lists requires faculty approval.

The following section contains the list of courses required for the Bachelor of Science in Computer Engineering and Computer Science degrees and a suggested sequence

### Bachelor of Science In Computer Engineering (B.S.Cmp.E.)

#### Freshman Year - First Semester

4 MATH 2554 Calculus I

3 CHEM 1103 University Chemistry

1 CHEM 1101L University Chemistry Lab

3 CSCE 1113 Programming Foundations I  
1 CSCE 1111L Programming Foundations I Lab  
3 ENGL 1013 English Composition  
15 semester hours

Second Semester

4 MATH 2564 Calculus II  
4 PHYS 2054 University Physics I  
0 PHYS 2050L University Physics I Lab  
3 CSCE 1123 Programming Foundations II  
1 CSCE 1121L Programming Foundations II Lab  
3 ENGL 1023 Composition II  
3 MATH 2103 Discrete Math  
18 semester hours

Sophomore Year - First Semester

4 MATH 2574 Calculus III  
4 PHYS 2074 University Physics II  
0 PHYS 2070L University Physics II Lab  
3 CENG 2113 Digital Techniques I  
0 CENG 2110L Digital Techniques I Lab  
3 CSCE 2143 Data Structures  
3 Humanities/social sciences elective  
17 semester hours

Second Semester

4 MATH 3404 Differential Equations  
3 ELEG 3933 Circuits and Electronics  
3 CENG 2213 Computer Organization  
3 CENG 2123 Digital Techniques II  
0 CENG 2120L Digital Techniques II Lab  
3 Basic science elective  
16 semester hours

Junior Year - First Semester

Rising Junior Exam  
3 CENG 3953 Logic Synthesis-VHDL  
3 CSCE 3313 Algorithms  
3 Technical Elective  
3 History/Government requirement  
3 Humanities/social sciences elective  
15 semester hours

Second Semester

Advanced English Exam  
3 CSCE 3613 Operating Systems  
3 CSCE 3513 Software Engineering  
3 PHIL 3103 Ethics and the Professions  
3 Technical Elective  
3 STAT 3013 Introduction to Probability and Statistics  
(INEG 3313 may be substituted)  
15 semester hours

Senior Year - First Semester

3 Free Elective  
1 CENG 4571 Senior Design Project I  
3 Technical electives/hardware  
3 Technical electives/software  
3 Humanities/social sciences elective  
13 semester hours

**Second Semester**

**3 CENG 4973 Senior Design Project II**

**3 CENG 4213 Intro. to Computer Architecture**

**3 Technical electives/hardware**

**3 Technical electives/software**

**3 Humanities/social sciences elective (3000+)**

**15 semester hours**

**124 Total hours required**

**Bachelor of Science In Computer Science (B.S.C.S.)**

**Freshman Year - First Semester**

**4 MATH 2554 Calculus I**

**4 PHYS 2054 University Physics I\***

**0 PHYS 2050L University Physics I Lab**

**3 CSCE 1113 Programming Foundations I**

**1 CSCE 1111L Programming Foundations I Lab**

**3 ENGL 1013 English Composition**

**15 semester hours**

**Second Semester**

**4 MATH 2564 Calculus II**

**4 PHYS 2074 University Physics II\***

**0 PHYS 2070L University Physics II Lab**

**3 CSCE 1123 Programming Foundations II**

**1 CSCE 1121L Programming Foundations II Lab**

**3 ENGL 1023 Composition II**

**3 MATH 2103 Discrete Mathematics**

**18 semester hours**

**Sophomore Year - First Semester**

**3 MATH 3083 Linear Algebra**

**3 CHEM 1103 University Chemistry I\***

**1 CHEM 1101L University Chemistry I Lab**

**3 CENG 2113 Digital Techniques I**

**0 CENG 2110L Digital Techniques I Lab**

**3 CSCE 2143 Data Structures**

**3 Humanities/Social sciences elective**

**16 semester hours**

**Second semester**

**3 MATH 3103, Combinatorics**

**3 Free elective**

**3 CENG 2213, Computer Organization**

**3 Humanities/social sciences elective**

**3 History/government requirement**

**15 semester hours**

**Junior Year - First semester**

**Rising Junior Exam**

**3 STAT 3013 Intro to Probability and Statistics**

**(INEG) 3313 can be substituted)**

**3 CS Elective**

**3 CSCE 3313 Algorithms**

**3 Humanities/social sciences elective**

**3 Humanities/social sciences elective**

**15 semester hours**

**Second semester**

**Advanced English Exam**

3 CSCE 3613 Operating Systems  
3 CSCE 3513 Software Engineering  
3 Free elective  
3 Free elective  
3 PHIL 3103 Ethics & the Profession  
15 semester hours

Senior Year - First semester  
1 CSCE 4561 CS Capstone I  
3 CSCE 4313 Programming Languages  
3 CSCE 4523 Database Management  
3 CS elective  
3 Free elective  
3 Humanities/social sciences elective  
16 semester hours

Second semester  
3 CSCE 4963 CS Capstone II  
3 CS elective  
3 CSCE 4323 Formal Languages  
3 Free elective  
3 Humanities/social sciences elective (3000+)  
15 semester hours  
125 Total hours required

\* Computer Science majors are required to take 12 hours of natural science consisting of either PHYS 2054/2050L, PHYS 2074/2070L and CHEM 1103/1101L; or CHEM 1103/1101L, CHEM 1123/1121L and PHYS 2054/2050L.

#### Degree Program Changes

Students must meet all requirements of their degree programs and are expected to keep informed concerning current regulations, policies, and program requirements in their fields of study. Changes made in curriculum at a level beyond that at which a student is enrolled might become graduation requirements for that student. Changes made in the curriculum at a level lower than the one at which a student is enrolled are not required of that student. Students should consult their departmental adviser for additional information.

#### Requirements for Departmental Honors

##### Computer Science and Computer Engineering

The Honors Program in Computer Science and Computer Engineering is designed for the superior student and is intended to help the student develop a more comprehensive view of Computer Science and Computer Engineering. The program provides a vehicle for the recognition of achievements of work beyond the usual course of study. Higher degree distinctions are recommended only in truly exceptional cases and are based upon the candidate's whole program of honors studies.

The department considers the following requirements necessary for graduation with honors:

1. The candidate must satisfy the requirements set forth by the College of Engineering.
2. A student must obtain at least a 3.50 grade-point average in required Computer Engineering and/or Computer Science courses.
3. The student must complete 7 hours of Honors credit in the major, which includes 4 hours of Honors Thesis taken as two successive semesters of CSCE 4912H or CENG 4912H and 3 hours of non-thesis.

Requirements for the Bachelor of Arts degree with a Major In Computer Science (B.A.C.S): At least 30 hours In computer science Including CSCE 1113/1111L, CSCE 1123/1121L, CSCE 2143, CSCE 3313, and CSCE 4313 plus 13 hours of electives to be selected from a list of CSCE courses numbered 3000 or higher offered by the department.

The mathematics requirements of the degree are MATH 2043 or MATH 2554, MATH 2103, and MATH 3103. The remaining courses should meet the requirements for a B.A. degree listed In the Fulbright College section.

Requirements for a Minor In Computer Science: CSCE 1113/1111L, CSCE 1123/1121L, CSCE 2143, CSCE 3313, and either CENG 2213 or CSCE 4313.

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

PROGRAM INVENTORY/DARS

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PGRM \_\_\_\_\_

SUBJ \_\_\_\_\_

CIP \_\_\_\_\_

CRTS \_\_\_\_\_

DGRE \_\_\_\_\_

PGCT \_\_\_\_\_

OFFC&CRTY VALID \_\_\_\_\_

REPORTING CODES

PROG. DEF. \_\_\_\_\_

REQ. DEF.

Initials \_\_\_\_\_

Date \_\_\_\_\_

**Distribution**

Notification to:

(1) College  
(7) Treasurer

(2) Department  
(8) Undergraduate Program Committee

(3) Admissions

(4) Institutional Research

(5) Continuing Education  
Initials \_\_\_\_\_ Date \_\_\_\_\_

(6) Graduate School

# ATTACHMENT 3C

## ADD, CHANGE OR DELETE PROGRAM OR UNIT

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

### SECTION I: Approvals

Department / Program Chair	Date Submitted	Faculty Senate Chair	Date
College Dean	Date	Provost	Date
Undergraduate Program Committee Chair	Date	Board of Trustees Approval Date	
Graduate Council Chair	Date	Arkansas Higher Education Coordinating Board Approval Date	

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

Academic Unit:  Major/Field of Study  Minor  Other Unit \_\_\_\_\_

Level:  Undergraduate  Graduate  Law Effective Catalog Year \_\_\_\_\_

Current Name Computer Science

College, School, Division ENGR Department Code CSCE

Current Code (6 digit Alpha) CSCE-M Proposed Code (6 digit Alpha) \_\_\_\_\_  
Prior approval from the Office of the Registrar is required.

Interdisciplinary Program CIP Code 11.0101  
Prior assignment from Office of Institutional Research is required.

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

### SECTION III: Add a New Program/Unit

For new program proposals, complete Sections II and VII and use as a cover sheet for a full program proposal as described in 'Criteria and Procedures for Preparing Proposals for New Programs in Arkansas.' ADHE <<http://www.adhe.arknet.edu.aadept.html>>.

### SECTION IV: Eliminate an Existing Program/Unit

Code/Name \_\_\_\_\_ Effective Catalog Year \_\_\_\_\_

No new students admitted to program after Term: \_\_\_\_ Year: \_\_\_\_\_

Allow students in program to complete under this program until Term: \_\_\_\_ Year: \_\_\_\_\_

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

Insert here a statement of the exact changes to be made: CENG 2133, Assembly Language and CENG 3213, Computer Organization are being combined into one new course with the proposed number/name - CENG 2213 Computer Organization. The courses are being combined to reduce the overlap of material presented. The minor in Computer Science is being changed to reflect the addition of the new course.

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 justification for combining these two courses is to reduce the amount of overlap and to update the subject material. This change will also affect the Computer Engineering degree program and the Computer Science B.S. degree. Program forms for both are being submitted.**

### SECTION VII: Catalog Text and Format

*Insert the current catalog text and the proposed catalog text. Be sure that the proposed text includes all the elements listed below in order. Do not include university requirements or college requirements. Do not substitute a sample schedule for an explicit statement of requirements. Use standard terms and vocabulary (see Academic Policy 1621.10).*

**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.**

#### Old Catalog Text -

**Requirements for a minor in Computer Science: CENG 1113/1111L, CSCE 1123/1121L, CSCE 2143, CSCE 3313, and either CENG 2133 or CSCE 4313.**

#### New Catalog Text -

**Requirements for a Minor in Computer Science: CSCE 1113/1111L, CSCE 1123/1121L, CSCE 2143, CSCE 3313, and either CENG 2213 or CSCE 4313.**

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

PROGRAM INVENTORY/DARS

PGRM \_\_\_\_\_ SUBJ \_\_\_\_\_ CIP \_\_\_\_\_ CRTS \_\_\_\_\_

DGRE \_\_\_\_\_ PGCT \_\_\_\_\_ OFFC&CRTY VALID \_\_\_\_\_

REPORTING CODES

PROG. DEF. \_\_\_\_\_ REQ. DEF. \_\_\_\_\_  
 Initials \_\_\_\_\_ Date \_\_\_\_\_

#### Distribution

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Notification to:

(1) College  
(7) Treasurer

(2) Department  
(8) Undergraduate Program Committee

(3) Admissions

(4) Institutional Research

(5) Continuing Education  
Initials \_\_\_\_\_

Date \_\_\_\_\_

(6) Graduate School

# ATTACHMENT 3A

## ADD, CHANGE OR DELETE PROGRAM OR UNIT

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

### SECTION I: Approvals

Department / Program Chair	Date Submitted	Faculty Senate Chair	Date
College Dean	Date	Provost	Date
Undergraduate Program Committee Chair	Date	Board of Trustees Approval Date	
Graduate Council Chair	Date	Arkansas Higher Education Coordinating Board Approval Date	

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

Academic Unit:  Major/Field of Study  Minor  Other Unit \_\_\_\_\_

Level:  Undergraduate  Graduate  Law Effective Catalog Year \_\_\_\_\_

Current Name Computer Science

College, School, Division ENGR Department Code CSCE

Current Code (6 digit Alpha) CSCEBS Proposed Code (6 digit Alpha) \_\_\_\_\_  
Prior approval from the Office of the Registrar is required.

Interdisciplinary Program CIP Code 11.0101  
Prior assignment from Office of Institutional Research is required.

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

### SECTION III: Add a New Program/Unit

For new program proposals, complete Sections II and VII and use as a cover sheet for a full program proposal as described in 'Criteria and Procedures for Preparing Proposals for New Programs in Arkansas.' ADHE <<http://www.adhe.arknet.edu.aadept.html>>.

### SECTION IV: Eliminate an Existing Program/Unit

Code/Name \_\_\_\_\_ Effective Catalog Year \_\_\_\_\_

No new students admitted to program after Term: \_\_\_\_ Year: \_\_\_\_\_

Allow students in program to complete under this program until Term: \_\_\_\_ Year: \_\_\_\_\_

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

Insert here a statement of the exact changes to be made: CENG 2133, Assembly Language and CENG 3213, Computer Organization are being combined into one new course with the proposed number/name - CENG 2213, Computer Organization. The courses are being combined to reduce the overlap of material presented. Computer Science is shifting 3 hours of free elective to maintain 125 hours in the program.

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 justification for combining these two courses is to reduce the amount of overlap and to update the subject material. This change will also effect the Computer Engineering degree program and the Computer Science minor offered through the Fulbright College. Program forms for both are being submitted.**

## **SECTION VII: Catalog Text and Format**

*Insert the current catalog text and the proposed catalog text. Be sure that the proposed text includes all the elements listed below in order. Do not include university requirements or college requirements. Do not substitute a sample schedule for an explicit statement of requirements. Use standard terms and vocabulary (see Academic Policy 1621.10).*

**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.**

### **Old Catalog Text -**

#### **COMPUTER SCIENCE**

#### **AND COMPUTER ENGINEERING (CSCE)**

**Jerry Yeargan**

**Head of the Department**

**311 Engineering Hall**

**479-575-6197**

### **Distinguished Professor Yeargan**

**• Professors Crisp, Deaton, Lala, Skeith, Sohraby, Starling, Thompson (C.)**

**• Associate Professors Apon, Beavers, Li, Lusth, Panda, Parkerson**

**• Assistant Professors Di, Hexmoor, Thompson (D.)**

**• Instructors Baker, Holmes, Wiggins**

**The faculty of the Computer Science and Computer Engineering department is engaged in multidisciplinary academic research, course offerings, and student projects in areas such as: high performance and scientific computing, grid computing, agents, middleware, networking, data security, nanotechnology, graph theory, and subsystem design. Requirements for the Bachelor of Arts degree are listed in the Fulbright College of Arts and Sciences section of this catalog.**

**The educational objectives of the department are to produce graduates who are recruited in a competitive market and make valuable contributions to a wide variety of industries, particularly in computer and information technology, succeed in**

graduate or professional studies; pursue life-long learning and continued professional development; and undertake leadership roles in their profession, in their communities, and in the global society.

Since almost all of today's complex systems encompass hardware and software elements, the computer engineering degree (CENG) has required sequences of courses in both hardware and software aspects of computer applications and design. Computer engineering graduates must acquire the skills required to design, build, and test complex digital systems. At the advanced level, students are exposed to hands-on experience with open-ended problems with opportunities for research and design.

A degree in computer science (CSCE) provides unique diversity in career choices. Computer science graduates can design, implement, or manage computer systems, as well as adapt computers to new applications. Computer science core courses include the fundamentals of programming concepts, data structures, operating systems, algorithms, formal languages, database management systems, and programming languages.

Humanities and social science electives are selected from courses approved by the College of Engineering. The Undergraduate Handbook has a list of approved basic science, mathematics, humanities/social science, and technical electives. Any course not included in these lists requires faculty approval.

The following section contains the list of courses required for the Bachelor of Science in Computer Engineering and Computer Science degrees and a suggested sequence. Not all courses are offered every semester, so students who deviate from the suggested sequence must pay careful attention to course scheduling and course prerequisites.

### Computer Engineering Program

#### Freshman Year - First Semester

4 MATH 2554 Calculus I

3 CHEM 1103 University Chemistry I

1 CHEM 1101L University Chemistry I Lab

3 CSCE 1113 Programming Foundations I

1 CSCE 1111L Programming Foundations I Lab

3 ENGL 1013 English Composition

15 semester hours

#### Second Semester

4 MATH 2564 Calculus II

4 PHYS 2054 University Physics I

0 PHYS 2050L University Physics I Lab

3 CSCE 1123 Programming Foundations II

1 CSCE 1121L Programming Foundations II Lab

3 ENGL 1023 Composition II

3 MATH 2103 Discrete Math

18 semester hours

#### Sophomore Year - First Semester

4 MATH 2574 Calculus III

4 PHYS 2074 University Physics II

0 PHYS 2070L University Physics II Lab

3 CENG 2113 Digital Techniques I

0 CENG 2110L Digital Techniques I Lab

3 CSCE 2143 Data Structures

3 Humanities/social sciences elective

17 semester hours

#### Second Semester

4 MATH 3404 Differential Equations

3 ELEG 3933 Circuits and Electronics

3 CENG 2133 Assembly Language

3 CENG 2123 Digital Techniques II

0 CENG 2120L Digital Techniques II Lab

3 Basic science elective

16 semester hours

#### Junior Year - First Semester

##### Rising Junior Exam

3 CENG 3953 Logic Synthesis-VHDL

3 Technical Elective  
3 CSCE 3313 Algorithms  
3 History/Government requirement  
3 Humanities/social sciences elective  
15 semester hours

Second Semester

Advanced English Exam  
3 Free Elective  
3 PHIL 3103 Ethics and the Professions  
3 Technical Elective  
3 CENG 3213 Computer Organization  
3 STAT 3013 Introduction to Probability and Statistics  
(INEG 3313 may be substituted)  
15 semester hours

Senior Year - First Semester

3 CSCE 4513 Software Engineering  
1 CENG 4571 Senior Design Project I  
3 CSCE 4413 Operating Systems  
3 Technical electives/hardware  
3 Technical electives/software  
3 Humanities/social sciences elective  
16 semester hours

Second Semester

3 CENG 4973 Senior Design Project II  
3 CENG 4213 Intro. to Computer Architecture  
3 Technical electives/hardware  
3 Technical electives/software  
3 Humanities/social sciences elective (3000+)  
15 semester hours  
127 Total hours required

Computer Science Program

Freshman Year - First Semester

4 MATH 2554 Calculus I  
4 PHYS 2054 University Physics I\*  
0 PHYS 2050L University Physics I lab  
3 CSCE 1113 Programming Foundations I  
1 CSCE1111L Programming Foundations I Lab  
3 ENGL 1013 English Composition  
15 semester hours

Second Semester

4 MATH 2564 Calculus II  
4 PHYS 2074 University Physics II\*  
0 PHYS 2070 University Physics II Lab  
3 CSCE 1123 Programming Foundations II  
1 CSCE 1121L Programming Foundations II Lab  
3 ENGL 1023 Composition II  
3 MATH 2103 Discrete Mathematics  
18 semester hours

Sophomore Year - First Semester

3 MATH 3083 Linear Algebra  
3 CHEM 1103 University Chemistry I\*  
1 CHEM 1101 University Chemistry I Lab  
3 CENG 2113 Digital Techniques I  
0 CENG 2110L Digital Techniques I Lab



3 CSCE 2143 Data Structures  
3 Humanities/Social sciences elective  
16 semester hours

Second semester

3 MATH 3103, Combinatorics  
3 Free elective  
3 CENG 2133, Assembly Language  
3 Humanities/social sciences elective  
3 History/government requirement  
15 semester hours

Junior Year - First semester

Rising Junior Exam  
3 STAT 3013 Intro to Probability and Statistics  
(INEG) 3313 can be substituted)  
3 CENG 3213 Computer Organization  
3 CSCE 3313 Algorithms  
3 Humanities/social sciences elective  
3 Humanities/social sciences elective  
15 semester hours

Second semester

Advanced English Exam  
3 CSCE 4413 Operating Systems  
3 CSCE 4313 Programming Languages  
3 Free elective  
3 Free elective  
3 PHIL 3103 Ethics & the Profession  
15 semester hours

Senior Year - First semester

1 CSCE 4561 CS Capstone I  
3 CSCE 4513 Software Engineering  
3 CSCE 4523 Database Management  
3 CSCE elective  
3 Free elective  
3 Humanities/social sciences elective  
16 semester hours

Second semester

3 CSCE 4963 CS Capstone II  
3 CSCE elective  
3 CSCE 4323 Formal Languages  
3 Free elective  
3 Humanities/social sciences elective (3000+)  
15 semester hours  
125 Total hours required

\* Computer Science majors are required to take 12 hours of natural science consisting of either (PHYS 2054/2050L, PHYS 2074/2070L, and CHEM 1103/1101L); OR (CHEM 1103/1101L, CHEM 1123/1121L, and PHYS 2054/2050L).

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Requirements for Departmental Honors

## Computer Science and Computer Engineering

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1. The candidate must satisfy the requirements set forth by the College of Engineering.

2. A student must obtain at least a 3.50 grade-point average in required Computer Engineering and/or Computer Science courses.

3. The student must complete 7 hours of Honors credit in the major, which includes 4 hours of Honors Thesis taken as two successive semesters of CSCE 4912H or CENG 4912H and 3 hours of non-thesis.

### New Catalog Text -

#### COMPUTER SCIENCE

#### AND COMPUTER ENGINEERING (CSCE)

Jerry Yeargan

Head of the Department

311 Engineering Hall

479-575-6197

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• Professors Crisp, Deaton, Skeith, Thompson (C.)

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The faculty of the Computer Science and Computer Engineering department is engaged in multidisciplinary academic research, course offerings, and student projects in areas such as: high performance and scientific computing, grid computing, agents, middleware, networking, data security, nanotechnology, graph theory, and subsystem design.

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Since almost all of today's complex systems encompass hardware and software elements, the computer engineering degree (CENG) has required sequences of courses in both hardware and software aspects of computer applications and design. Computer engineering graduates must acquire the skills required to design, build, and test complex digital systems. At the advanced level, students are exposed to hands-on experience with open-ended problems with opportunities for research and design. The CE program culminates in a senior design project that is a two-semester consecutive course with the first semester forming teams and developing a project proposal. The second semester expands the project to encompass the development, implementation, and presentation of the final project.

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Humanities and social science electives are selected from courses approved by the College of Engineering. The Undergraduate Handbook has a list of approved basic science, mathematics, and technical electives. Any course not included in these lists requires faculty approval.

The following section contains the list of courses required for the Bachelor of Science in Computer Engineering and Computer Science degrees and a suggested sequence

### Bachelor of Science In Computer Engineering (B.S.Cmp.E.)

#### Freshman Year - First Semester

4 MATH 2554 Calculus I

3 CHEM 1103 University Chemistry

1 CHEM 1101L University Chemistry Lab

3 CSCE 1113 Programming Foundations I

**1 CSCE 1111L Programming Foundations I Lab**

**3 ENGL 1013 English Composition**

**15 semester hours**

**Second Semester**

**4 MATH 2564 Calculus II**

**4 PHYS 2054 University Physics I**

**0 PHYS 2050L University Physics I Lab**

**3 CSCE 1123 Programming Foundations II**

**1 CSCE 1121L Programming Foundations II Lab**

**3 ENGL 1023 Composition II**

**3 MATH 2103 Discrete Math**

**18 semester hours**

**Sophomore Year - First Semester**

**4 MATH 2574 Calculus III**

**4 PHYS 2074 University Physics II**

**0 PHYS 2070L University Physics II Lab**

**3 CENG 2113 Digital Techniques I**

**0 CENG 2110L Digital Techniques I Lab**

**3 CSCE 2143 Data Structures**

**3 Humanities/social sciences elective**

**17 semester hours**

**Second Semester**

**4 MATH 3404 Differential Equations**

**3 ELEG 3933 Circuits and Electronics**

**3 CENG 2213 Computer Organization**

**3 CENG 2123 Digital Techniques II**

**0 CENG 2120L Digital Techniques II Lab**

**3 Basic science elective**

**16 semester hours**

**Junior Year - First Semester**

**Rising Junior Exam**

**3 CENG 3953 Logic Synthesis-VHDL**

**3 CSCE 3313 Algorithms**

**3 Technical Elective**

**3 History/Government requirement**

**3 Humanities/social sciences elective**

**15 semester hours**

**Second Semester**

**Advanced English Exam**

**3 CSCE 3613 Operating Systems**

**3 CSCE 3513 Software Engineering**

**3 PHIL 3103 Ethics and the Professions**

**3 Technical Elective**

**3 STAT 3013 Introduction to Probability and Statistics**

**(INEG 3313 may be substituted)**

**15 semester hours**

**Senior Year - First Semester**

**1 CENG 4571 Senior Design Project I**

**3 Technical electives/hardware**

**3 Technical electives/software**

**3 Humanities/social sciences elective**

**3 Free Elective**

**13 semester hours**

Second Semester

3 CENG 4973 Senior Design Project II  
3 CENG 4213 Intro. to Computer Architecture  
3 Technical electives/hardware  
3 Technical electives/software  
3 Humanities/social sciences elective (3000+)  
15 semester hours  
124 Total hours required

Bachelor of Science In Computer Science (B.S.C.S.)

Freshman Year - First Semester

4 MATH 2554 Calculus I  
4 PHYS 2054 University Physics I\*  
0 PHYS 2050L University Physics I Lab  
3 CSCE 1113 Programming Foundations I  
1 CSCE 1111L Programming Foundations I Lab  
3 ENGL 1013 English Composition  
15 semester hours

Second Semester

4 MATH 2564 Calculus II  
4 PHYS 2074 University Physics II\*  
0 PHYS 2070L University Physics II Lab  
3 CSCE 1123 Programming Foundations II  
1 CSCE 1121L Programming Foundations II Lab  
3 ENGL 1023 Composition II  
3 MATH 2103 Discrete Mathematics  
18 semester hours

Sophomore Year - First Semester

3 MATH 3083 Linear Algebra  
3 CHEM 1103 University Chemistry I\*  
1 CHEM 1101L University Chemistry I Lab  
3 CENG 2113 Digital Techniques I  
0 CENG 2110L Digital Techniques I Lab  
3 CSCE 2143 Data Structures  
3 Humanities/Social sciences elective  
16 semester hours

Second semester

3 MATH 3103, Combinatorics  
3 Free elective  
3 CENG 2213, Computer Organization  
3 Humanities/social sciences elective  
3 History/government requirement  
15 semester hours

Junior Year - First semester

Rising Junior Exam  
3 STAT 3013 Intro to Probability and Statistics  
(INEG) 3313 can be substituted)  
3 CS Elective  
3 CSCE 3313 Algorithms  
3 Humanities/social sciences elective  
3 Humanities/social sciences elective  
15 semester hours

Second semester

Advanced English Exam  
3 CSCE 3613 Operating Systems  
3 CSCE 3513 Software Engineering

3 Free elective  
3 Free elective  
3 PHIL 3103 Ethics & the Profession  
15 semester hours

Senior Year - First semester  
1 CSCE 4561 CS Capstone I  
3 CSCE 4313 Programming Languages  
3 CSCE 4523 Database Management  
3 CS elective  
3 Free elective  
3 Humanities/social sciences elective  
16 semester hours

Second semester  
3 CSCE 4963 CS Capstone II  
3 CS elective  
3 CSCE 4323 Formal Languages  
3 Free elective  
3 Humanities/social sciences elective (3000+)  
15 semester hours  
125 Total hours required

\* Computer Science majors are required to take 12 hours of natural science consisting of either PHYS 2054/2050L, PHYS 2074/2070L and CHEM 1103/1101L; or CHEM 1103/1101L, CHEM 1123/1121L and PHYS 2054/2050L.

#### Degree Program Changes

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#### Requirements for Departmental Honors

##### Computer Science and Computer Engineering

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1. The candidate must satisfy the requirements set forth by the College of Engineering.
2. A student must obtain at least a 3.50 grade-point average in required Computer Engineering and/or Computer Science courses.
3. The student must complete 7 hours of Honors credit in the major, which includes 4 hours of Honors Thesis taken as two successive semesters of CSCE 4912H or CENG 4912H and 3 hours of non-thesis.

Requirements for the Bachelor of Arts degree with a Major In Computer Science (B.A.C.S): At least 30 hours In computer science Including CSCE 1113/1111L, CSCE 1123/1121L, CSCE 2143, CSCE 3313, and CSCE 4313 plus 13 hours of electives to be selected from a list of CSCE courses numbered 3000 or higher offered by the department.

The mathematics requirements of the degree are MATH 2043 or MATH 2554, MATH 2103, and MATH 3103. The remaining courses should meet the requirements for a B.A. degree listed In the Fulbright College section.

Requirements for a Minor In Computer Science: CSCE 1113/1111L, CSCE 1123/1121L, CSCE 2143, CSCE 3313, and either CENG 2213 or CSCE 4313.

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

PROGRAM INVENTORY/DARS

PGRM \_\_\_\_\_ SUBJ \_\_\_\_\_ CIP \_\_\_\_\_ CRTS \_\_\_\_\_

1622.20A p/vcaa 10/1/00  
CSCEBS.doc

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DGRE \_\_\_\_\_

PGCT \_\_\_\_\_

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REPORTING CODES

PROG. DEF. \_\_\_\_\_

REQ. DEF.

Initials \_\_\_\_\_

Date \_\_\_\_\_

**Distribution**

Notification to:

(1) College  
(7) Treasurer

(2) Department  
(8) Undergraduate Program Committee

(3) Admissions

(4) Institutional Research

(5) Continuing Education  
Initials \_\_\_\_\_ Date \_\_\_\_\_

(6) Graduate School

ATTACHMENT 3B

ADD, CHANGE OR DELETE PROGRAM OR UNIT

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

SECTION I: Approvals

Department / Program Chair Date Submitted Faculty Senate Chair Date
College Dean Date Provost Date
Undergraduate Program Committee Chair Date Board of Trustees Approval Date
Graduate Council Chair Date Arkansas Higher Education Coordinating Board Approval Date

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

Academic Unit: [X] Major/Field of Study [ ] Minor [ ] Other Unit
Level: [X] Undergraduate [ ] Graduate [ ] Law Effective Catalog Year Fall 2006
Current Name Computer Engineering
College, School, Division ENGR Department Code CSCE
Current Code (6 digit Alpha) CENGBS Proposed Code (6 digit Alpha)
[ ] Interdisciplinary Program CIP Code 14.0901
Proposed Name
When a program name is changed, enrollment of current students reflects the new name.

SECTION III: Add a New Program/Unit

[ ] For new program proposals, complete Sections II and VII and use as a cover sheet for a full program proposal as described in 'Criteria and Procedures for Preparing Proposals for New Programs in Arkansas.' ADHE <http://www.adhe.arknet.edu.aadept.html>.

SECTION IV: Eliminate an Existing Program/Unit

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

SECTION V: Proposed Changes to an Existing Program

Insert here a statement of the exact changes to be made: CENG 2133, Assembly Language and CENG 3213, Computer Organization are being combined into one new course with the proposed number/name - CENG 2213, Computer Organization. The courses are being combined to reduce the overlap of material presented. This course change will reduce the number of hours required in the program to 124.

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.)
[X] 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.)*

**This change will also effect the Computer Science degree program and the Computer Science minor offered through the Fulbright College. Program forms for both are being submitted.**

#### **SECTION VII: Catalog Text and Format**

*Insert the current catalog text and the proposed catalog text. Be sure that the proposed text includes all the elements listed below in order. Do not include university requirements or college requirements. Do not substitute a sample schedule for an explicit statement of requirements. Use standard terms and vocabulary (see Academic Policy 1621.10).*

**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.**

#### **Old Catalog Text -**

#### **COMPUTER SCIENCE AND COMPUTER ENGINEERING (CSCE)**

**Jerry Yeargan  
Head of the Department  
311 Engineering Hall  
479-575-6197**

#### **Distinguished Professor Yeargan**

- **Professors Crisp, Deaton, Lala, Skeith, Sohraby, Starling, Thompson (C.)**
- **Associate Professors Apon, Beavers, Li, Lusth, Panda, Parkerson**
- **Assistant Professors Di, Hexmoor, Thompson (D.)**
- **Instructors Baker, Holmes, Wiggins**

**The faculty of the Computer Science and Computer Engineering department is engaged in multidisciplinary academic research, course offerings, and student projects in areas such as: high performance and scientific computing, grid computing, agents, middleware, networking, data security, nanotechnology, graph theory, and subsystem design. Requirements for the Bachelor of Arts degree are listed in the Fulbright College of Arts and Sciences section of this catalog.**

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The following section contains the list of courses required for the Bachelor of Science in Computer Engineering and Computer Science degrees and a suggested sequence. Not all courses are offered every semester, so students who deviate from the suggested sequence must pay careful attention to course scheduling and course prerequisites.

### Computer Engineering Program

#### Freshman Year - First Semester

4 MATH 2554 Calculus I

3 CHEM 1103 University Chemistry I

1 CHEM 1101L University Chemistry I Lab

3 CSCE 1113 Programming Foundations I

1 CSCE 1111L Programming Foundations I Lab

3 ENGL 1013 English Composition

15 semester hours

#### Second Semester

4 MATH 2564 Calculus II

4 PHYS 2054 University Physics I

0 PHYS 2050L University Physics I Lab

3 CSCE 1123 Programming Foundations II

1 CSCE 1121L Programming Foundations II Lab

3 ENGL 1023 Composition II

3 MATH 2103 Discrete Math

18 semester hours

#### Sophomore Year - First Semester

4 MATH 2574 Calculus III

4 PHYS 2074 University Physics II

0 PHYS 2070L University Physics II Lab

3 CENG 2113 Digital Techniques I

0 CENG 2110L Digital Techniques I Lab

3 CSCE 2143 Data Structures

3 Humanities/social sciences elective

17 semester hours

#### Second Semester

4 MATH 3404 Differential Equations

3 ELEG 3933 Circuits and Electronics

3 CENG 2133 Assembly Language

3 CENG 2123 Digital Techniques II

0 CENG 2120L Digital Techniques II Lab

3 Basic science elective

16 semester hours

#### Junior Year - First Semester

##### Rising Junior Exam

3 CENG 3953 Logic Synthesis-VHDL  
3 Technical Elective  
3 CSCE 3313 Algorithms  
3 History/Government requirement  
3 Humanities/social sciences elective  
15 semester hours

Second Semester

Advanced English Exam  
3 Free Elective  
3 PHIL 3103 Ethics and the Professions  
3 Technical Elective  
3 CENG 3213 Computer Organization  
3 STAT 3013 Introduction to Probability and Statistics  
(INEG 3313 may be substituted)  
15 semester hours

Senior Year - First Semester

3 CSCE 4513 Software Engineering  
1 CENG 4571 Senior Design Project I  
3 CSCE 4413 Operating Systems  
3 Technical electives/hardware  
3 Technical electives/software  
3 Humanities/social sciences elective  
16 semester hours

Second Semester

3 CENG 4973 Senior Design Project II  
3 CENG 4213 Intro. to Computer Architecture  
3 Technical electives/hardware  
3 Technical electives/software  
3 Humanities/social sciences elective (3000+)  
15 semester hours  
124 Total hours required

Computer Science Program

Freshman Year - First Semester

4 MATH 2554 Calculus I  
4 PHYS 2054 University Physics I\*  
0 PHYS 2050L University Physics I lab  
3 CSCE 1113 Programming Foundations I  
1 CSCE1111L Programming Foundations I Lab  
3 ENGL 1013 English Composition  
15 semester hours

Second Semester

4 MATH 2564 Calculus II  
4 PHYS 2074 University Physics II\*  
0 PHYS 2070 University Physics II Lab  
3 CSCE 1123 Programming Foundations II  
1 CSCE 1121L Programming Foundations II Lab  
3 ENGL 1023 Composition II  
3 MATH 2103 Discrete Mathematics  
18 semester hours

Sophomore Year - First Semester

3 MATH 3083 Linear Algebra  
3 CHEM 1103 University Chemistry I\*  
1 CHEM 1101 University Chemistry I Lab  
3 CENG 2113 Digital Techniques I

0 CENG 2110L Digital Techniques I Lab  
3 CSCE 2143 Data Structures  
3 Humanities/Social sciences elective  
16 semester hours

Second semester

3 MATH 3103, Combinatorics  
3 Free elective  
3 CENG 2133, Assembly Language  
3 Humanities/social sciences elective  
3 History/government requirement  
15 semester hours

Junior Year - First semester

Rising Junior Exam  
3 STAT 3013 Intro to Probability and Statistics  
(INEG) 3313 can be substituted)  
3 CENG 3213 Computer Organization  
3 CSCE 3313 Algorithms  
3 Humanities/social sciences elective  
3 Humanities/social sciences elective  
15 semester hours

Second semester

Advanced English Exam  
3 CSCE 4413 Operating Systems  
3 CSCE 4313 Programming Languages  
3 Free elective  
3 Free elective  
3 PHIL 3103 Ethics & the Profession  
15 semester hours

Senior Year - First semester

1 CSCE 4561 CS Capstone I  
3 CSCE 4513 Software Engineering  
3 CSCE 4523 Database Management  
3 CSCE elective  
3 Free elective  
3 Humanities/social sciences elective  
16 semester hours

Second semester

3 CSCE 4963 CS Capstone II  
3 CSCE elective  
3 CSCE 4323 Formal Languages  
3 Free elective  
3 Humanities/social sciences elective (3000+)  
15 semester hours  
127 Total hours required

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1 CSCE 1111L Programming Foundations I Lab  
3 ENGL 1013 English Composition  
15 semester hours

Second Semester

4 MATH 2564 Calculus II  
4 PHYS 2054 University Physics I  
0 PHYS 2050L University Physics I Lab  
3 CSCE 1123 Programming Foundations II  
1 CSCE 1121L Programming Foundations II Lab  
3 ENGL 1023 Composition II  
3 MATH 2103 Discrete Math  
18 semester hours

Sophomore Year - First Semester

4 MATH 2574 Calculus III  
4 PHYS 2074 University Physics II  
0 PHYS 2070L University Physics II Lab  
3 CENG 2113 Digital Techniques I  
0 CENG 2110L Digital Techniques I Lab  
3 CSCE 2143 Data Structures  
3 Humanities/social sciences elective  
17 semester hours

Second Semester

4 MATH 3404 Differential Equations  
3 ELEG 3933 Circuits and Electronics  
3 CENG 2213 Computer Organization  
3 CENG 2123 Digital Techniques II  
0 CENG 2120L Digital Techniques II Lab  
3 Basic science elective  
16 semester hours

Junior Year - First Semester

Rising Junior Exam  
3 CENG 3953 Logic Synthesis-VHDL  
3 CSCE 3313 Algorithms  
3 Technical Elective  
3 History/Government requirement  
3 Humanities/social sciences elective  
15 semester hours

Second Semester

Advanced English Exam  
3 CSCE 3613 Operating Systems  
3 CSCE 3513 Software Engineering  
3 PHIL 3103 Ethics and the Professions  
3 Technical Elective  
3 STAT 3013 Introduction to Probability and Statistics  
(INEG 3313 may be substituted)  
15 semester hours

Senior Year - First Semester

3 Free Elective  
1 CENG 4571 Senior Design Project I  
3 Technical electives/hardware  
3 Technical electives/software  
3 Humanities/social sciences elective  
13 semester hours

**Second Semester**

**3 CENG 4973 Senior Design Project II**

**3 CENG 4213 Intro. to Computer Architecture**

**3 Technical electives/hardware**

**3 Technical electives/software**

**3 Humanities/social sciences elective (3000+)**

**15 semester hours**

**124 Total hours required**

**Bachelor of Science In Computer Science (B.S.C.S.)**

**Freshman Year - First Semester**

**4 MATH 2554 Calculus I**

**4 PHYS 2054 University Physics I\***

**0 PHYS 2050L University Physics I Lab**

**3 CSCE 1113 Programming Foundations I**

**1 CSCE 1111L Programming Foundations I Lab**

**3 ENGL 1013 English Composition**

**15 semester hours**

**Second Semester**

**4 MATH 2564 Calculus II**

**4 PHYS 2074 University Physics II\***

**0 PHYS 2070L University Physics II Lab**

**3 CSCE 1123 Programming Foundations II**

**1 CSCE 1121L Programming Foundations II Lab**

**3 ENGL 1023 Composition II**

**3 MATH 2103 Discrete Mathematics**

**18 semester hours**

**Sophomore Year - First Semester**

**3 MATH 3083 Linear Algebra**

**3 CHEM 1103 University Chemistry I\***

**1 CHEM 1101L University Chemistry I Lab**

**3 CENG 2113 Digital Techniques I**

**0 CENG 2110L Digital Techniques I Lab**

**3 CSCE 2143 Data Structures**

**3 Humanities/Social sciences elective**

**16 semester hours**

**Second semester**

**3 MATH 3103, Combinatorics**

**3 Free elective**

**3 CENG 2213, Computer Organization**

**3 Humanities/social sciences elective**

**3 History/government requirement**

**15 semester hours**

**Junior Year - First semester**

**Rising Junior Exam**

**3 STAT 3013 Intro to Probability and Statistics**

**(INEG) 3313 can be substituted)**

**3 CS Elective**

**3 CSCE 3313 Algorithms**

**3 Humanities/social sciences elective**

**3 Humanities/social sciences elective**

**15 semester hours**

**Second semester**

**Advanced English Exam**

3 CSCE 3613 Operating Systems  
3 CSCE 3513 Software Engineering  
3 Free elective  
3 Free elective  
3 PHIL 3103 Ethics & the Profession  
15 semester hours

Senior Year - First semester  
1 CSCE 4561 CS Capstone I  
3 CSCE 4313 Programming Languages  
3 CSCE 4523 Database Management  
3 CS elective  
3 Free elective  
3 Humanities/social sciences elective  
16 semester hours

Second semester  
3 CSCE 4963 CS Capstone II  
3 CS elective  
3 CSCE 4323 Formal Languages  
3 Free elective  
3 Humanities/social sciences elective (3000+)  
15 semester hours  
125 Total hours required

\* Computer Science majors are required to take 12 hours of natural science consisting of either PHYS 2054/2050L, PHYS 2074/2070L and CHEM 1103/1101L; or CHEM 1103/1101L, CHEM 1123/1121L and PHYS 2054/2050L.

#### Degree Program Changes

Students must meet all requirements of their degree programs and are expected to keep informed concerning current regulations, policies, and program requirements in their fields of study. Changes made in curriculum at a level beyond that at which a student is enrolled might become graduation requirements for that student. Changes made in the curriculum at a level lower than the one at which a student is enrolled are not required of that student. Students should consult their departmental adviser for additional information.

#### Requirements for Departmental Honors

##### Computer Science and Computer Engineering

The Honors Program in Computer Science and Computer Engineering is designed for the superior student and is intended to help the student develop a more comprehensive view of Computer Science and Computer Engineering. The program provides a vehicle for the recognition of achievements of work beyond the usual course of study. Higher degree distinctions are recommended only in truly exceptional cases and are based upon the candidate's whole program of honors studies.

The department considers the following requirements necessary for graduation with honors:

1. The candidate must satisfy the requirements set forth by the College of Engineering.
2. A student must obtain at least a 3.50 grade-point average in required Computer Engineering and/or Computer Science courses.
3. The student must complete 7 hours of Honors credit in the major, which includes 4 hours of Honors Thesis taken as two successive semesters of CSCE 4912H or CENG 4912H and 3 hours of non-thesis.

Requirements for the Bachelor of Arts degree with a Major In Computer Science (B.A.C.S): At least 30 hours In computer science Including CSCE 1113/1111L, CSCE 1123/1121L, CSCE 2143, CSCE 3313, and CSCE 4313 plus 13 hours of electives to be selected from a list of CSCE courses numbered 3000 or higher offered by the department.

The mathematics requirements of the degree are MATH 2043 or MATH 2554, MATH 2103, and MATH 3103. The remaining courses should meet the requirements for a B.A. degree listed In the Fulbright College section.

Requirements for a Minor In Computer Science: CSCE 1113/1111L, CSCE 1123/1121L, CSCE 2143, CSCE 3313, and either CENG 2213 or CSCE 4313.

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

PROGRAM INVENTORY/DARS

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CENGBS.doc

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PGRM \_\_\_\_\_

SUBJ \_\_\_\_\_

CIP \_\_\_\_\_

CRTS \_\_\_\_\_

DGRE \_\_\_\_\_

PGCT \_\_\_\_\_

OFFC&CRTY VALID \_\_\_\_\_

REPORTING CODES

PROG. DEF. \_\_\_\_\_

REQ. DEF.

Initials \_\_\_\_\_

Date \_\_\_\_\_

**Distribution**

Notification to:

(1) College  
(7) Treasurer

(2) Department  
(8) Undergraduate Program Committee

(3) Admissions

(4) Institutional Research

(5) Continuing Education  
Initials \_\_\_\_\_

(6) Graduate School  
Date \_\_\_\_\_



# ATTACHMENT 3C

## ADD, CHANGE OR DELETE PROGRAM OR UNIT

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

### SECTION I: Approvals

Department / Program Chair	Date Submitted	Faculty Senate Chair	Date
College Dean	Date	Provost	Date
Undergraduate Program Committee Chair	Date	Board of Trustees Approval Date	
Graduate Council Chair	Date	Arkansas Higher Education Coordinating Board Approval Date	

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

Academic Unit:  Major/Field of Study  Minor  Other Unit \_\_\_\_\_

Level:  Undergraduate  Graduate  Law Effective Catalog Year \_\_\_\_\_

Current Name Computer Science

College, School, Division ENGR Department Code CSCE

Current Code (6 digit Alpha) CSCE-M Proposed Code (6 digit Alpha) \_\_\_\_\_  
Prior approval from the Office of the Registrar is required.

Interdisciplinary Program CIP Code 11.0101  
Prior assignment from Office of Institutional Research is required.

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

### SECTION III: Add a New Program/Unit

For new program proposals, complete Sections II and VII and use as a cover sheet for a full program proposal as described in 'Criteria and Procedures for Preparing Proposals for New Programs in Arkansas.' ADHE <<http://www.adhe.arknet.edu.aadept.html>>.

### SECTION IV: Eliminate an Existing Program/Unit

Code/Name \_\_\_\_\_ Effective Catalog Year \_\_\_\_\_

No new students admitted to program after Term: \_\_\_\_ Year: \_\_\_\_\_

Allow students in program to complete under this program until Term: \_\_\_\_ Year: \_\_\_\_\_

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

Insert here a statement of the exact changes to be made: CENG 2133, Assembly Language and CENG 3213, Computer Organization are being combined into one new course with the proposed number/name - CENG 2213 Computer Organization. The courses are being combined to reduce the overlap of material presented. The minor in Computer Science is being changed to reflect the addition of the new course.

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 justification for combining these two courses is to reduce the amount of overlap and to update the subject material. This change will also affect the Computer Engineering degree program and the Computer Science B.S. degree. Program forms for both are being submitted.**

### SECTION VII: Catalog Text and Format

*Insert the current catalog text and the proposed catalog text. Be sure that the proposed text includes all the elements listed below in order. Do not include university requirements or college requirements. Do not substitute a sample schedule for an explicit statement of requirements. Use standard terms and vocabulary (see Academic Policy 1621.10).*

**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.**

#### Old Catalog Text -

**Requirements for a minor in Computer Science: CENG 1113/1111L, CSCE 1123/1121L, CSCE 2143, CSCE 3313, and either CENG 2133 or CSCE 4313.**

#### New Catalog Text -

**Requirements for a Minor in Computer Science: CSCE 1113/1111L, CSCE 1123/1121L, CSCE 2143, CSCE 3313, and either CENG 2213 or CSCE 4313.**

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

PROGRAM INVENTORY/DARS

PGRM \_\_\_\_\_ SUBJ \_\_\_\_\_ CIP \_\_\_\_\_ CRTS \_\_\_\_\_

DGRE \_\_\_\_\_ PGCT \_\_\_\_\_ OFFC&CRTY VALID \_\_\_\_\_

REPORTING CODES

PROG. DEF. \_\_\_\_\_ REQ. DEF. \_\_\_\_\_  
 Initials \_\_\_\_\_ Date \_\_\_\_\_

#### Distribution

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 Minor.doc

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Notification to:

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