UNIVERSITY COURSE AND PROGRAMS COMMITTEE
AGENDA
August 25, 2006
2:30 PM
Upchurch Conference Room

1. Approval of minutes for May26, 2006
2. Consent Agenda (Course change proposals can be reviewed at https://www2.uark.edu/web-apps/regr/ccf/Main or by going to the website of the Registrar and clicking on "Faculty/Staff" then "Curriculum Change Form," and then "View Changes Pending Before the University Course and Programs Committee.")
   Proposals for new courses are enclosed.
   a. Undergraduate Courses (Table A)
   b. Graduate Courses (Table B)
   c. Dual Courses (Table C)
3. Old Business:

From May 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) was tabled until the next meeting of the University Course and Programs Committee. The reason for the action was that more detail was needed in Section V, (Proposed Changes to an Existing Program), of the Program Change Form. Although the correct box was checked, the actual course changes were not listed.

4. New Business:
   a. Elect committee chair
   b. Proposed program changes for the Bumpers College of Agriculture, Food,
   c. and Life Sciences (Table 1, Attachment 1A)
   d. Proposed program changes for the College of Education and Health Professions (Table 2, Attachments 2A and 2B)
   e. Proposed program changes for the College of Engineering (Table 3, Attachments 3A, 3B, and 3C)
5. Other items:

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

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

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

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
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

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

University Course and Programs Committee
25-Aug-06

TABLE ONE

Dale Bumpers College of Agricultural, Food, and Life Sciences

School of Human Environmental Sciences

> HDFSRS - Add area of concentration in Birth through Kindergarten - Attachment 1A
> Seven courses are being added to seven existing courses to form a new concentration
> in Birth through Kindergarten as specified in Section V of the attachment.

TABLE TWO

College of Education and Health Professions

Department of Rehabilitation, Human Resources, and Communication Disorders

> VOEDBS - Vocational Education - Attachments 2A and 2B
> Change of name and alpha code for all Vocational Education programs from BSE in Vocational
> Education to BSE in Career and Technical Education as specified in Section V of Attachment 2A.

TABLE THREE

College of Engineering

Department of Computer Science and Computer Engineering

> CSCEBS - Computer Science - Attachment 3A
> Combining two required courses into one and adding three hours to free electives
> as specified in Section V of Attachment 3A
>
> CENGBS - Computer Engineering - Attachment 3B
> Combining two required courses into one and reducing the total number of hours
> needed for the degree from 127 to 124 as specified in Section V of Attachment 3B.
>
> CSCE-M - Minor in Computer Science - Attachment 3C
> Removes CENG 2133 from minor course listing and
> adds CENG 2213 to the listing as specified in Section V of Attachment 3C.

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

_____   _____
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 **Concentration**

Level: ☒ Undergraduate   ☐ Graduate   ☐ Law   Effective Catalog Year **2007**

Current Name   _____

College, School, Division **AFLS**   Department Code **HESC**

Current Code (6 digit Alpha) **HDFSRS**   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 and Assessment: Birth to Three Years/Lab
HESC 4342/4342L Curriculum and Assessment: Three Years through Kindergarten/Lab
HESC 4473 Field Experience in Birth through Kindergarten Programs

1622.20A   p/vcaa   10/1/00   C:\program files\qualcomm\eudora\attach\UCPC August 2006 -
ATTACHMENT 1A - HDFSRS.doc

HIST 3383 Arkansas & the Southwest

Include the following existing courses for the BRKD concentration:
HESC 2402/2401L Infant and Toddler Development/Lab
HESC 3402/3401L Child Guidance/Lab
HESC 4463 Admn and Evaluation of Child Dev 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's 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).

Head Start, Kids First, and the Arkansas Better Chance 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 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.

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
Electives: 18-20 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 4303 Professional Dev in HESC
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 Admn and Evaluation of Child Dev 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.
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.
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 the prenatal to early adolescence.
Graduates may work as preschool teachers, child care 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: 16-20 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 1411L Observation of Children in Early Childhood Programs
HESC 2402/2401L Infant and Toddler Development/Lab
HESC 3402/3401L Child Guidance/Lab
HESC 4342/4342L Curriculum & Assessment: Three Years through Kindergarten/Lab
HESC 4463 Admn and Evaluation of Child Dev Programs
HESC 4473 Field Experience in Birth through Kindergarten Programs
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.

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 4473 Field Experience in Birth through Kindergarten Programs
HIST 3383 Arkansas & the Southwest
CIED 3023 Survey of Exceptionalities
CIED 3103 Children's Literature
CIED 3113 Emergent and Developmental Literacy
SCWK 3633 Problems of Child Welfare

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.

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 _____

University Course and Programs Committee
25-Aug-06

TABLE ONE

Dale Bumpers College of Agricultural, Food, and Life Sciences

School of Human Environmental Sciences

HDFSRS - Add area of concentration in Birth through Kindergarten - Attachment 1A
Seven courses are being added to seven existing courses to form a new concentration
in Birth through Kindergarten as specified in Section V of the attachment.

TABLE TWO

College of Education and Health Professions

Department of Rehabilitation, Human Resources, and Communication Disorders

VOEDBS - Vocational Education - Attachments 2A and 2B
Change of name and alpha code for all Vocational Education programs from BSE in Vocational
Education to BSE in Career and Technical Education as specified in Section V of Attachment 2A.

TABLE THREE

College of Engineering

Department of Computer Science and Computer Engineering

CSCEBS - Computer Science - Attachment 3A
Combining two required courses into one and adding three hours to free electives
as specified in Section V of Attachment 3A

CENGBS - Computer Engineering - Attachment 3B
Combining two required courses into one and reducing the total number of hours
needed for the degree from 127 to 124 as specified in Section V of Attachment 3B.

CSCE-M - Minor in Computer Science - Attachment 3C
Removes CENG 2133 from minor course listing and
adds CENG 2213 to the listing as specified in Section V of Attachment 3C.

ATTACHMENT 2A

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:

1622.20A   p/vcaa   2/23/06

☒ 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.)

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**~~
~~**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**~~
1622.20A   p/vcaa   2/23/06

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 WellnessConcepts
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 1011Introduction 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
WCOB 1012 Legal Environment of Business	
WCOB 1023 Business Foundations	
WCOB 1033 Data Analysis & Interpretation	
WCOB 2013 Markets and Consumers	
WCOB 2023 Production and Delivery of Goods and Services	

ECON 2013 Principles of Macroeconomics
ISYS 3000-level or above
VOED 480V Problems in VOED (Word Processing)
MGMT 3563 Mgmt Concepts/Org Behavior, or
MKTG 3433 Principles of Marketing
VOED 380V Supervised Work Experience (6 hours)
VOED 4122 Leadership Development
COMM 3703 Organizational Communications
Business Electives (15 hours)

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 PBTEConcentration
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

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

1622.20A   p/vcaa   2/23/06

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 inerviews 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 a 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 _____

1622.20A   p/vcaa   2/23/06

ATTACHMENT 2B

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
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:**

University Course and Programs Committee
25-Aug-06

TABLE ONE

Dale Bumpers College of Agricultural, Food, and Life Sciences

School of Human Environmental Sciences

HDFSRS - Add area of concentration in Birth through Kindergarten - Attachment 1A
Seven courses are being added to seven existing courses to form a new concentration
in Birth through Kindergarten as specified in Section V of the attachment.

TABLE TWO

College of Education and Health Professions

Department of Rehabilitation, Human Resources, and Communication Disorders

VOEDBS - Vocational Education - Attachments 2A and 2B
Change of name and alpha code for all Vocational Education programs from BSE in Vocational
Education to BSE in Career and Technical Education as specified in Section V of Attachment 2A.

TABLE THREE

College of Engineering

Department of Computer Science and Computer Engineering

CSCEBS - Computer Science - Attachment 3A
Combining two required courses into one and adding three hours to free electives
as specified in Section V of Attachment 3A

CENGBS - Computer Engineering - Attachment 3B
Combining two required courses into one and reducing the total number of hours
needed for the degree from 127 to 124 as specified in Section V of Attachment 3B.

CSCE-M - Minor in Computer Science - Attachment 3C
Removes CENG 2133 from minor course listing and
adds CENG 2213 to the listing as specified in Section V of Attachment 3C.

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 2054University Physics I*
0 PHYS 2050LUniversity 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 2074University 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
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
 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 Organization3 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

PGRM _____   SUBJ _____   CIP _____   CRTS _____

DGRE _____   PGCT _____   OFFC&CRTY VALID _____

REPORTING CODES

PROG. DEF. _____   REQ. DEF.

                                                          Initials _____   Date _____

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 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: ☒ Major/Field of Study   ☐ Minor   ☐Other Unit _____

Level: ☒ 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) _____
                                        Prior approval from the Office of the Registrar is required.

☐Interdisciplinary Program   CIP Code **14.0901**
                                        Prior assignment from Office of Institutional Research is required.

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

SECTION III: Add a New Program/Unit

☐ For new program proposals, complete Sections II and VII and use as a cover sheet for a full program proposal as described in 'Criteria and Procedures for Preparing Proposals for New Programs in Arkansas.' 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.)
          ☒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.
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
124 Total hours required

Computer Science Program
Freshman Year - First Semester
4 MATH 2554 Calculus I
4 PHYS 2054University Physics I*
0 PHYS 2050LUniversity 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 2074University 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

PGRM _____   SUBJ _____   CIP _____   CRTS _____

DGRE _____   PGCT _____   OFFC&CRTY VALID _____

REPORTING CODES

PROG. DEF. _____   REQ. DEF.

                                              Initials _____   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

_____
College Dean   Date

_____
Undergraduate Program Committee Chair   Date

_____
Graduate Council Chair   Date

_____
Faculty Senate Chair   Date

_____
Provost   Date

_____
Board of Trustees Approval 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 _____

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 _____