

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

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

SECTION I: Approvals

Department / Program Chair _____ Date Submitted _____

College Dean _____ Date _____

Honors College Dean _____ Date _____

Core Curriculum Committee _____ Date _____

University Course and Programs Committee _____ Date _____

Graduate Council Chair _____ Date _____

Faculty Senate Chair _____ Date _____

Provost _____ Date _____

Board of Trustees Approval/Notification Date _____

Arkansas Higher Education Coordinating Board Approval/Notification Date _____

SECTION II: Profile Data - Required Information and Name Change InformationAcademic Unit: Major/Field of Study Minor Other Unit _____ PolicyLevel: Undergraduate Graduate Law Effective Catalog Year _____

Program changes are effective with the next available catalog. See Academic Policy Series 1622.20

Current Name **BS, Civil Engineering**College, School, Division **ENGR**Department Code **CVEG**Current Code (6 digit Alpha) **CVEGBS**

Proposed Code (6 digit Alpha) _____

Prior approval from the Office of the Registrar is required.

 Interdisciplinary ProgramCIP Code **14.0801**

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.edu/divisions/academicaffairs/Pages/aa_academicproposals.aspx

Program proposal uses courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here: _____

SECTION IV: Eliminate an Existing Program/Unit

Code/Name _____ 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 or Program Policies

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

1. Remove required course: GNEG 1122**2. Add required course: CVEG 2011L****3. Remove required course: CVEG 3022**

4. Add required course: INEG 2413

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

- Program change proposal adds courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here: _____
- Program change proposal deletes courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here: _____

Check all the boxes that apply and complete the required sections of the form:

- Change of Name and Code (Complete only sections I, II, V and VII.)
- Change Course Requirements: (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)
- Change Delivery Site/Method (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)
- Change Total Hours (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)
- Change in Program Policies

SECTION VI: Justification

Justify this change and state its likely effect on any other degree program (including those outside the school or college). Identify any program or program components (other than courses) to be eliminated if this program is implemented. (Program and course change forms must also be submitted for such related changes.)

Changes 1 and 2 streamline the program, in regards to the instruction of AutoCAD (computer-aided design and drawing), by eliminating a dedicated course and transferring the instruction to the laboratory section of one of the first courses in the program in which AutoCAD is used. This new laboratory course (CVEG 2011L) also provides a separate for-credit laboratory to accompany its co-requisite lecture, CVEG 2014 (Civil Engineering Mechanics). Changes 3 and 4 reduce duplication in the College of Engineering. Currently the Department of Civil Engineering teaches a separate engineering economics course (CVEG 3022).

SECTION VII: Catalog Text and Format

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

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

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

For minors, state requirements in terms of hours, required courses, electives, etc.

For graduate program/units, include elements (as needed) parallel to those listed for undergraduate programs above.

For Law School program/units, prepare text consistent with current catalog style.

For centers, prepare text consistent with current catalog style.

Civil Engineering (CVEG)

Kevin D. Hall

Head of the Department
4190 Bell Engineering Center
479-575-4954

E-mail: kdhall@uark.edu

<http://cveg.uark.edu>

- University Professor Emeritus Elliott
- **University Professors Dennis, Selvam**
- Professors ~~Dennis~~, Gattis, Hall, ~~Johnson, Selvam~~, Wang, Young
- Associate Professors Edwards, Hale, Heymsfield, Soerens
- Associate Professor Emeritus Pleimann
- Assistant Professors ~~Braham~~, Coffman, Cox, Fairey, Grimmelsman, Williams (R.), ~~Williams (S.)~~
- **Research Associate Professor Williams (S.)**

Civil engineering is the oldest of all the engineering fields, yet it is as contemporary as the need to provide solutions to today's environmental problems and to develop advanced transportation systems. The civil engineer plans, designs, builds, and operates projects for the advancement and well being of society while coordinating and conserving human and natural resources. Civil engineering projects range from small to monumental and include public water systems, buildings, bridges, rail and highway networks, wastewater treatment plants, solid and hazardous waste disposal facilities, airports, and soil conservation and flood diversion controls.

The civil engineering profession offers a vast array of opportunities. Civil engineers may work in private employment or with public agencies. They may work indoors in activities such as planning and design, or outdoors in areas such as construction supervision. Employment is possible anywhere in the world.

The objectives of the civil engineering program are to produce graduates who are:

1. employable in any of the following fields: foundation, earthwork, and embankment design and analysis; water, wastewater, and waste handling and treatment; highway facility design and operation; and structural design and analysis.
2. academically prepared to pursue licensure as a Professional Engineer.
3. prepared to pursue an advanced education.

To fulfill these objectives, all students must take courses in geotechnical, environmental, transportation, and structural engineering. Courses are designed to present "real world" applications without sacrificing conceptual and theoretical basics. Students complete design problems in each of these areas; and, as part of the senior year, they participate in two major design projects.

Civil Engineering B.S.C.E. Degree Plan

The Civil Engineering B.S.C.E. program is eligible for freshman students who want to participate in an Eight-Semester Degree Program.

The following section contains the list of courses required for the Bachelor of Science in Civil Engineering degree 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.

The university core courses for engineering students are listed at the bottom of this section.

~~Students must also take ENGL 2003 during the third year or gain exemption.~~

Fall Semester Year 1

3 ENGL 1013 Composition I

4 MATH 2554 Calculus I

3 CHEM 1103 University Chemistry I
4 PHYS 2054 University Physics I
0 PHYS 2054L University Physics Lab
1 GNEG 1111 Introduction to Engineering I
15 Semester hours

Spring Semester Year 1

3 ENGL 1023 Technical Composition II
4 Freshman Science Elective
0 Freshman Science Elective Lab
4 MATH 2564 Calculus II
3 Humanities/Social Science Elective
1 GNEG 1121 Introduction to Engineering II
15 Semester hours

Fall Semester Year 2

4 MATH 2574 Calculus III
4 CVEG 2014 Civil Engineering Mechanics
1 CVEG 2011L Civil Engineering Mechanics Lab
3 Humanities/Social Science Elective
3 CVEG 2053 Surveying Systems
1 CVEG 2051L Surveying Systems Lab
2 GNEG 1122 Introduction to CAD
17-16 Semester hours

Spring Semester Year 2

3 CVEG 2113 Structural Materials
3 INEG 3313-2313 Engineering Statistics
4 MATH 3404 Differential Equations
3 GEOL 1113 General Geology
1 GEOL 1111L General Geology Lab
3 Humanities/Social Science Elective
17 Semester hours

Fall Semester Year 3

4 CVEG 3304 Structural Analysis
3 CVEG 3133 Soil Mechanics
3 CVEG 3213 Hydraulics
3 CVEG 3413 Transportation Engineering
4 Science Elective
17 Semester hours

Spring Semester Year 3

2 CVEG 3022 Public Works Economics
3 INEG 2413 Engineering Economic Analysis
3 CVEG 3223 Hydrology
3 CVEG 3243 Environmental Engineering
3 CVEG 4313 Structural Steel Design I
3 CVEG 4303 Reinforced Concrete Design I
3 Humanities/Social Science Elective
3 Engineering Elective
17-18 Semester hours

Fall Semester Year 4

3 CVEG 4143 Foundation Engineering
3 CVEG 4303 Reinforced Concrete Design I
3 CVEG 4313 Structural Steel Design I
3 CVEG 4433 Transportation Pavements and Materials
2 CVEG 4852 Professional Practice Issues
3 Engineering Elective
3 Humanities/Social Science Elective
1 Civil Engineering Design Elective

18 Semester hours**Spring Semester Year 4**

3 CVEG 4243 Environmental Engineering Design
3 CVEG 4513 Construction Management
6 Engineering Electives
1 Civil Engineering Design Elective
3 Humanities/Social Science Elective
16 Semester hours

132 Total hours**Core Requirements**

The University of Arkansas has adopted University Core Requirements (sometimes called State Minimum Core) of 35 semester-credit-hours of general education courses that are required of all baccalaureate degree candidates. This is in compliance with Arkansas Act 98 of 1989 and the subsequent action of the Arkansas State Board of Higher Education. Beginning in the fall semester of 1991, all state institutions of higher education in Arkansas have a 35-hour minimum core requirement with specified hours in each of six academic areas. The University and the College of Engineering have identified those courses that meet the minimum requirement, and they are listed in the chart below.

Students should consult the requirements for specific departments and programs when choosing courses for use in the University Core.

Every student in the College of Engineering is required to complete a minimum of 18 semester hours in the humanities and social sciences. Six semester hours must be at the 3000-level or above. A list of approved upper-level humanities/social science courses is available in departmental offices and the dean's office.

No more than nine semester hours from any single discipline may be presented for degree credit. To meet the University Core requirements, the total number of hours (both upper level and lower level) in the fine arts/humanities courses must be at least six, and the social science hours must total at least nine (in addition to the U.S. history or government requirement). The six hours of courses at the 3000 and 4000 level may be in the fine arts and humanities area, the social science area, or divided between the two areas. Since some of the humanities and social science courses are specified in some of the curricula, e.g., ECON 2143 in chemical and mechanical engineering, the student should consult the curriculum of the department in which he or she is enrolled prior to selecting upper-level electives.

Specific University Core Requirements for Engineering Students**English – 6 hours**

ENGL 1013 Composition I
ENGL 1023 Technical Composition II (ENGL 1023 Composition II may be taken in lieu of Technical Composition II)

Mathematics – 4 hours

MATH 2554 Calculus I

Science – 8 hours

PHYS 2054 University Physics I

PHYS 2074 University Physics II or

CHEM 1123, 1121L University Chemistry II

U.S. History or Government – 3 hours

HIST 2003 History of Amer. People or Government to 1877

HIST 2013 History of Amer. People 1877 to Present

PLSC 2003 American National Government

Fine Arts and Humanities – 6 hours**Social Sciences – 9 hours**

Six hours of Fine Arts, Humanities and Social Sciences must be upper level courses (3000-4000 level). A list of approved courses is available in departmental offices.

Elective Courses

Students must select four 3-hour engineering elective courses in conference with their adviser. The selection must include at least three civil engineering courses. The fourth course can be a civil engineering course or one of the following: MEEG 2013 Dynamics, MEEG 2403 Thermodynamics, or ELEG 3903 Electric Circuits and Machines. Normally, the civil engineering courses are selected from among the 4000-level elective CVEG courses. Exceptional students may be allowed to choose from the 5000 (graduate-level) course series.

Humanities and social science electives are selected from courses approved by the college. Lists of approved electives are on file in the department office. All civil engineering students must complete CHEM 1103 University Chemistry I and CHEM 1123/1121L University Chemistry II. Students may choose to complete CHEM 1123/1121L University Chemistry II as the Freshman Science Elective (as part of the Freshman Engineering Program); in such cases, the Civil Engineering Science Elective requirement is satisfied by completing one of the following course sequences: CHEM 3603 and CHEM 3601L, Organic Chemistry, GEOL 3514, Structural Geology, BIOL 2013 and BIOL 2011L, General Microbiology, or PHYS 2074 and PHYS 2070L, University Physics II. As an alternative, students may choose to complete PHYS 2074/2070L University Physics II as the Freshman Science Elective (as part of the Freshman Engineering Program); in such cases, the Civil Engineering Science Elective requirement is satisfied by completing CHEM 1123/1121L University Chemistry II. Students are advised that a grade of "C" or better in both CHEM 1123 (University Chemistry II) and CHEM 1121L (University Chemistry II Lab) is required to receive credit for CHEM 1101L (University Chemistry I Lab).

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
(7) Treasurer(2) Department
(8) Undergraduate Program Committee

(3) Admissions

(4) Institutional Research

(5) Continuing Education

(6) Graduate School

5/12/08