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	Graduate Council Chair	Date
_____	_____	_____	_____
College Dean	Date	Faculty Senate Chair	Date
_____	_____	_____	_____
Honors College Dean	Date	Provost	Date
_____	_____	_____	_____
Core Curriculum Committee	Date	Board of Trustees Approval/Notification Date	
_____	_____	_____	_____
University Course and Programs Committee	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 **ENGR** ☒ Policy

Level: ☒ Undergraduate ☐ Graduate ☐ Law Effective Catalog Year <u>2014</u>

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

Current Name **All Undergraduate Degree Programs in the College of Engineering**

College, School, Division **ENGR** Department Code **ENGD**

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

☐ Interdisciplinary Program CIP Code _____
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: **Placement in MATH 1284 will become a co- or prerequisite for admission to the college of engineering.**

☐ 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.)

Calculus I (MATH 2554) is a prerequisite for virtually every engineering course in every degree program within the College of Engineering. One of the major goals of the college's Freshman Engineering Program is to get students through at least Calculus I before the start of their second year. Historically, the College of Engineering has allowed incoming freshmen to enter the college even if they were not prepared to start in Calculus I. This policy has resulted in a significant number of students who are not prepared to continue their progress through an engineering program at the beginning of their second year. A task force consisting of representatives from every department within the college along with a representative from the Department of Mathematical Sciences met during the Fall 2012 semester to review the issues and propose solution(s) to this problem. In reviewing 14 years of historical data it became evident that students who enter the College of Engineering at the College Algebra level or lower (two or more remedial courses below Calculus I) have a very low probability of graduating from the College of Engineering. This remedial population represents about nine percent of the incoming freshmen in the College of Engineering. About 30% of these students have ultimately graduated from the University of Arkansas in six years, but only 7.5% graduate from the College of Engineering. When looking at the same data for incoming freshmen who are Calculus I ready (the stated entry level math course in every degree program) one finds their six year graduation rate to be 70% with nearly 50% graduating from the College of Engineering. In addition, the first, second and third year retention rates for calculus ready students are between 2 and 3 times higher than the rates for algebra ready students. Considering the graduation rate for remedial math students is 3 fold higher in other colleges than it is in the College of Engineering and the fact that these remedial students persist at the university at a rate less than 50% of the Calculus ready students it seems prudent for these students to start in programs where they may achieve more success.

If historical data is used as a predictor of future trends this change would affect 35-70 students per year and they would most likely be attracted to WCOB, JWF College of Arts and Science or the College of Education and Health Professions, since that is where the majority of the remidial math group has historically graduated from.

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 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.

COLLEGE ADMISSION REQUIREMENTS

Undergraduate Students

Freshmen admitted to the University of Arkansas, Fayetteville, who are placed in MATH 1284 (Pre-Calculus) or higher, are eligible to enroll in the College of Engineering. The freshman curriculum stresses a basic foundation in mathematics, physics, and chemistry, which will be required in later years. The sophomore, junior, and senior years are spent in a strong concentration on the student's chosen field, with emphasis on industrial applications of classroom and laboratory work. By the selection of electives, a student can concentrate in depth in a particular subject, have the flexibility to study several subjects, and minor in an area of interest. Provisions are made for electives in the humanities and social sciences as a means of providing a well-rounded education.

International Students

Before being admitted all computer engineering applicants must submit a Test of Spoken English (TSE) score of at least 5.0, or a 7.0 on the spoken section of the IELTS, and an ACT score of 25 (or SAT score of 1140(R)) or above, to be eligible for admission.

Transfer Students

In addition to the University policies controlling the granting of credit for course work taken at other institutions, the College of Engineering specifies that advanced (3000- and 4000-level at the University of Arkansas) engineering courses may not normally be transferred from institutions that do not have engineering programs accredited by the Engineering Accreditation Commission or the Computing Accreditation Commission of ABET. Placement in MATH 1284 or higher is a requirement for enrollment In the College of Engineering.

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

5/12/08