The University of Georgia

University Council
Athens, Georgia 30602

April 10, 2015

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Dear Colleagues:

The attached proposal to add a high-demand status to the following majors in the College of Engineering will be an agenda item for the April 17, 2015, Full University Curriculum Committee meeting:

Agricultural Engineering (B.S.A.E.)
Biochemical Engineering (B.S.Bch.E.)
Biological Engineering (B.S.B.E.)
Civil Engineering (B.S.C.E.)
Computer Systems Engineering (B.S.C.S.E.)
Electrical and Electronics Engineering (B.S.E.E.)
Environmental Engineering (B.S.Env.E.)
Mechanical Engineering (B.S.M.E.)

Sincerely,

William K. Vencill

William K. Vencill, Chair
University Curriculum Committee

cc: Provost Pamela S. Whitten
Dr. Rahul Shrivastav

The University of Georgia
Proposal for High-Demand Status
of Undergraduate Majors in the College of Engineering

I. BASIC INFORMATION

School/College: College of Engineering

Department/Division: n/a

Major(s) and Degree(s):

Agricultural Engineering (B.S.A.E.)

Biochemical Engineering (B.S.Bch.E.)

Biological Engineering (B.S.B.E.)

Civil Engineering (B.S.C.E.)

Computer Systems Engineering (B.S.C.S.E.)

Electrical and Electronics Engineering (B.S.E.E.)

Environmental Engineering (B.S.Env.E.)

Mechanical Engineering (B.S.M.E.)

Proposed date for change in high-demand status: Fall 2015

II. CAPACITY INFORMATION:

Please provide the following information on an attached sheet:

1. Anticipated number of applicants: If the capacity of the junior class is smaller than the anticipated number of applications, this major may be designated as high-demand.

    a. The capacity of the junior class for both this academic year and the following academic year.

    The undergraduate enrollment of the College of Engineering is projected to be 1650 students by 2016. The capacity of the junior class for next year is estimated to be 375.

    b. The anticipated number of applications for both this academic year and the following academic year.

    2014-15 Junior Class (Third Year): 285

    2015-16 Junior Class (Third Year): 375

2. High-Demand Majors:

    a. What is the academic justification for restricting the major?

       The College of Engineering needs to restrict the major in order to provide the best possible educational experience to our undergraduate student population. This will ensure proper access to space and resources necessary for instruction.

    b. Provide criteria used to determine which of the applicants meeting entrance requirements will be admitted to the major.

       See attached.

    c. Provide a contact person for information concerning the criteria and application deadlines.

       Ramana M. Pidaparti, Interim Associate Dean for Academic Programs

       College of Engineering

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College of Engineering
The University of Georgia

1.0 Entrance Requirements and High Demand Engineering Major Requirements for Admittance into Major

All students wishing to pursue a Bachelor's degree in one of the following eight undergraduate degree programs offered by the College of Engineering will be admitted to the University of Georgia as Intended Majors:

Agricultural Engineering (B.S.A.E.)
Biochemical Engineering (B.S.Bch.E.)
Biological Engineering (B.S.B.E.)
Civil Engineering (B.S.C.E.)
Computer Systems Engineering (B.S.C.S.E.)
Electrical and Electronics Engineering (B.S.E.E.)
Environmental Engineering (B.S.Env.E.)
Mechanical Engineering (B.S.M.E.)

These students may apply for admittance into their chosen degree program after satisfying entrance and high demand engineering major requirements.

1.1 Procedure Overview

Highlights of the selection process are as follows:

- Students will apply for formal admission to an engineering degree program/major typically during their third semester.
- To gain admittance into the degree of their choice, students must first satisfy the entrance requirements into the major provided in Section 1.1.1. Specifically, students must possess a grade of C or better in each of the courses listed in order to proceed to the high demand engineering major selection process. The entrance requirements listed below are the same for all eight engineering undergraduate majors.
- Students satisfying the entrance requirements will be ranked and compared against other students within their primary intended major based upon an Application to Major (Section 1.1.3) and the cumulative grades from those courses included as entrance requirements (Section 1.1.1) and major specific courses (Section 1.1.2) typically taken within a program's first four semesters.
- On the Application to Major form, the student may indicate up to two alternate engineering majors for admittance consideration if they are not admitted into their primary major of choice.

1.1.1 Entrance Requirements

Students must possess a grade of C or better in each of the following four courses taken at the University of Georgia or at another institution. If taken at another institution these courses must be considered equivalent to those offered by the University of Georgia. This requirement is considered to be satisfied for courses given credit or placement by UGA.

- MATH 2250 or MATH 2300H or MATH 2400H

- MATH 2260 or MATH 2410H
- PHYS 1251 or PHYS 1211 or PHYS 1311
- ENGL 1101

1.1.2 High Demand Engineering Major Specific Coursework

Students interested in applying to one of the eight undergraduate engineering majors will be required to take the courses listed for that major. The grades earned in these courses will be used in ranking students for admittance into a specific major. Students are encouraged to select alternate majors from the same grouping as their primary major in order to avoid a delay in graduation. If a student selects an alternate major outside the grouping of their primary major, then the additional degree program requirements must be completed before submitting the application.

Students applying for Agricultural Engineering, Civil Engineering, Environmental Engineering, or Mechanical Engineering must take the following courses:

- ENGR 1120
- ENGR 1140
- ENGR 2120

Students applying for Biological Engineering or Biochemical Engineering must take the following courses:

- BIOL 1107
- CHEM 1212
- ENGR 2120

Students applying for Computer Systems Engineering and Electrical and Electronics Engineering must take the following courses:

- CSEE 2220
- CSEE 2210 or ELEE1030
- CSCI 1302 or ENGR 2120

1.1.3 Application and Personal Statement of Purpose

To gain admittance into the degree program, the student will prepare a formal application. The application will include a personal statement of purpose, any experience that the student feels would be relevant to the selection process (such as internships) and their overall career goals. In the application, the student will indicate their first, second and third choice for their engineering major, although listing a second or third alternate besides their primary selection is not required.

1.2 Method for Ranking of Students and Selection in a Degree Program

Within each degree program, those students that have satisfied the entrance requirements of Section 1.1.1 and that have selected the degree, as one of their top three choices will be ranked based on their cumulative GPA obtained from the list of courses in Section 1.1.1 and Section 1.1.2. Working with the College of Engineering academic office, each degree program coordinator will determine the number of students that can be admitted to that program for a given academic year. The number of students that can be admitted will be based on the constraints of the number of faculty and other resources such as laboratory space, etc.

The program coordinators for each degree will jointly decide on the selection of students into the various degree programs, factoring in the student rankings and the student's selection of preferred plus alternate engineering majors as well as the number of openings available for that year in each major.

Students who are denied entry into their chosen major will have the right to appeal to the College of Engineering Office of Academic Programs. The College of Engineering will accept applications for high demand majors each semester. Students have the option to reapply in subsequent semesters if they are not admitted to the major of their choice. Reapplication does not guarantee them admittance into the major.

College of Engineering

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Entrance Requirements for All Undergraduate Engineering Majors
Applicants are initially admitted as "Intended Majors." There is no guarantee of acceptance to any major in the College of Engineering.

- Completion of the following courses with a C or better:
  ENGL 1101 or ENGL 1101E or ENGL 1101S or equivalent
  MATH 2250 or MATH 2300H or MATH 2400H or equivalent
  MATH 2260 or MATH 2410H or equivalent
  PHYS 1251 or PHYS 1211 or PHYS 1311 or equivalent
- Completion of application

Applicants are evaluated on the High-Demand - Selection Criteria listed below. Acceptance in the major is contingent on satisfactory completion of in-progress work.

High-Demand Major–Selection Criteria

- Grades in the following courses:
  ENGL 1101 or ENGL 1101E or ENGL 1101S or equivalent
  MATH 2250 or MATH 2300H or MATH 2400H or equivalent
  MATH 2260 or MATH 2410H or equivalent
  PHYS 1251 or PHYS 1211 or PHYS 1311 or equivalent

- Grades in the following major-specific coursework:

  Courses required if applying to a major in Agricultural Engineering (B.S.A.E.), Civil Engineering (B.S.C.E.), Environmental Engineering (B.S.Env.E.), or Mechanical Engineering (B.S.M.E.):
  ENGR 1120 or equivalent
  ENGR 1140 or equivalent
  ENGR 2120 or equivalent

  Courses required if applying to a major in Biological Engineering (B.S.B.E.) or Biochemical Engineering (B.S.Bch.E.):
  BIOL 1107 or equivalent
  CHEM 1212 or equivalent
  ENGR 2120 or equivalent

  Courses required if applying to a major in Computer Systems Engineering (B.S.C.S.E.) or Electrical and Electronics Engineering (B.S.E.E.):
  CSEE 2220 or equivalent
  CSEE 2210 or ELEE 1030 or equivalent
  CSCI 1302 or ENGR 2120 or equivalent

- Statement of Purpose in the student's first choice major in which applicant describes his/her interest in the major, any relevant experience (such as internships), and his/her future career goals