2-9-2015

Closure of the Sustainability Science Graduate Certificate Program (UTK Notification)

University of Tennessee Knoxville

THE UNIVERSITY OF TENNESSEE KNOXVILLE

February 9, 2015

Dr. Belle Wheelan
President, Southern Association of Colleges and Schools
1866 Southern Lane
Decatur, GA 30033-4097

RE: Substantive Change Notification

Dear Dr. Wheelan:

Please consider this letter notification from the University of Tennessee of a substantive change per the guidelines as stated in the Substantive Change for Accredited Institutions of the Commission on Colleges - Policy Statement and Procedures document.

Closure of Graduate Certificate in Sustainability Science, College of Engineering

At the January 29, 2015 meeting of the Graduate Council, the proposal to close the Graduate Certificate in Sustainability Science was approved. UT Faculty Senate approved the closure on February 2, 2015. This closure goes into effect with the Fall Semester, 2015.

No teach-out plan is needed. The graduate certificate was funded by the National Science Foundation and the grant closed July 31, 2014. With the loss of funding, Department of Chemical and Biomolecular Engineering (the department with which the graduate certificate was affiliated) has decided to close the program. Since that time, no new students are being admitted. Those in the certificate program will be allowed to finish the course work. The certificate consisted of 12-semester credit hours from Chemical and Biomolecular Engineering (CBE) 571 (3 semester credit hours) or CBE 572 (2 semester credit hours), and a minimum of 3 hours, but no more than 4 semester credit hours, of CBE 503 (1 semester credit hours) or 673 (2 semester credit hours), with the remaining hours taken from a pool of courses approved by the Sustainability Science faculty committee (faculty drawn from a number of departments including Chemical and Biomolecular Engineering; Civil and Environmental Engineering, and Materials Science and Engineering; Biochemistry, Cellular and Molecular Biology; and Chemistry). No current faculty or staff is affected by the closure of the program. Courses, other than those listed, will remain in the inventory of offered courses. Only those courses listed will be removed from the catalog once the last student completes requirements.

Office of Accreditation
527 Andy Holt Tower Knoxville, TN 37996-0152
865-974-3635 865-974-4811 fax malbrech@utk.edu

This change will go into effect with the 2015-2016 academic year (first day of classes is August 19, 2015).

Sincerely,

Original signed and mailed

Mary Lewnes Albrecht, PhD
Associate Vice Provost for Accreditation and SACS COC Liaison

C: Dr. Jimmy G. Cheek, Chancellor
Dr. Susan D. Martin, Provost and Senior Vice Chancellor for Academic Affairs
Dr. Sally McMillan, Vice Provost for Academic Affairs
Dr. Carolyn Hodges, Vice Provost and Dean of the Graduate School
Dr. Wayne Davis, Dean, College of Engineering
Dr. Masood Parang, Associate Dean, College of Engineering
Dr. Bamin Khomami, Head, Department of Chemical and Biomolecular Engineering
Dr. Steven M. Sheeley, Vice President, SACSCOC

Attachments:
1. Text to be Removed from the 2015-2016 Graduate Catalog
2. Pages from the January 29, 2015 Agenda of the Graduate Council

Text to be Removed from the 2015-2016 Graduate Catalog

Sustainability Science Graduate Certificate

The Department of Chemical and Biomolecular Engineering offers an interdisciplinary graduate certificate in sustainability science designed to prepare students to be conversant in all of the fields relevant to sustainable energy production. The program draws upon the strengths of faculty members in five departments: Chemical and Biomolecular Engineering; Civil and Environmental Engineering, and Materials Science and Engineering in the College of Engineering; and Biochemistry, Cellular and Molecular Biology and Chemistry in the College of Arts and Sciences. The required courses focus upon the fundamental scientific concepts and the social and political considerations involved in developing sustainable energy.

Admission

Submit online application to Graduate Admissions Office. Students must be admitted as degree-seeking graduate students either in master's programs, doctoral programs, or as certificate students. Other graduate students with strong mathematical preparation may apply with the specific consent of the program coordinator. Application to the certificate program is made by submitting graduate transcripts and a letter of application to the program coordinator.

Program of Study

The 12-hour certificate is earned by completing CBE 571 or CBE 572 and a minimum of 3 hours, but no more than 4 hours, of CBE 503 or CBE 673 . Other course credits may be taken from a pool of courses approved by the STAIR committee. Students must maintain a GPA of 3.00.

Courses in the Sustainability Science Graduate Certificate: To Remain in Catalog until Last Student Completes

CBE 571 - STAIRMaster I: Fundamentals of Sustainable Technology

3 Credit Hours

Module-based, interdisciplinary course incorporating fundamental concepts in biological, chemical, materials science, and engineering disciplines required for the development and analysis of sustainable technologies, emphasizing applications to energy technologies. This course also addresses the social and political challenges necessary to implement these technologies. STAIR (Sustainable Technology through Advanced Interdisciplinary Research) program requirement.

Cross-listed: (Same as Biochemistry and Cellular and Molecular Biology 571).

Comment(s): Graduate standing in Biochemistry and Cellular and Molecular Biology, Chemistry, Chemical and Biomolecular Engineering, Civil and Environmental Engineering, and Materials Science and

Engineering.
Registration Permission: Consent of instructor.

CBE 572 - STAIRCase I: Sustainable Technology Case Studies

2 Credit Hours
Interdisciplinary course serving as a training platform for development of team efforts in the solution of energy and manufacturing challenges. Case studies focusing on analysis of sustainable technologies, emphasizing applications to energy technologies. STAIR (Sustainable Technology through Advanced Interdisciplinary Research) program requirement.
Cross-listed: (Same as Biochemistry and Cellular and Molecular Biology 572).
(DE) Prerequisite(s): 571.
Comment(s): Graduate standing in Biochemistry and Cellular and Molecular Biology, Chemistry, Chemical and Biomolecular Engineering, Civil and Environmental Engineering, and Materials Science and Engineering.
Registration Permission: Consent of instructor.

CBE 503 - STAIRWISE: STAIR Weekly Integrative Strategic Exercises

1 Credit Hours
Seminar and Journal Club for sustainable technologies STAIR (Sustainable Technology through Advanced Interdisciplinary Research) program requirement.
Cross-listed: (Same as Biochemistry and Cellular and Molecular Biology 503).
Grading Restriction: Satisfactory/No Credit Grading only.
Repeatability: May be repeated. Maximum 10 hours.
Credit Restriction: A maximum of 6 hours combined between 501 and 503 can be applied toward a graduate degree in Chemical and Biomolecular Engineering.
Comment(s): Open to all graduate students in the STAIR Program Departments (Biochemistry and Cellular and Molecular Biology, Chemistry, Chemical and Biomolecular Engineering, Civil and Environmental Engineering, and Materials Science and Engineering).

CBE 673 - STAIRWISE: STAIR Weekly Integrative Strategic Exercises

2 Credit Hours
Seminars dealing with current sustainable technology advances in biological, chemical, material science and engineering disciplines. Topics posted in advance. STAIR (Sustainable Technology through Advanced Interdisciplinary Research) program requirement. May be taken instead of 503 STAIRWISE.
Cross-listed: (Same as Biochemistry and Cellular and Molecular Biology 673).
Repeatability: May be repeated. Maximum 6 hours.
Credit Restriction: Maximum 4 hours may be applied toward major.
Comment(s): Open to all graduate students in the STAIR Program Departments (Biochemistry and Cellular and Molecular Biology, Chemistry, Chemical and Biomolecular Engineering, Civil and Environmental Engineering, and Materials Science and Engineering).
Registration Restriction(s): Minimum student level – graduate.

II. PROGRAM CHANGES

DEPARTMENT OF CHEMICAL AND BIOMOLECULAR ENGINEERING

❖ **DROP GRADUATE CERTIFICATE – SUSTAINABILITY SCIENCE**

In the 2014-15 Graduate Catalog, remove all catalog text for the Sustainability Science Graduate Certificate.

Rationale: This certificate is no longer funded by NSF IGERT and is discontinued. Impact on other units: None. Financial impact: None.

DEPARTMENTAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE

REVISE REQUIREMENTS - POWER AND ENERGY SYSTEMS GRADUATE CERTIFICATE

In the 2014-15 Graduate Catalog, revise the course requirements listing as follows:

1. Add ECE 529, ECE 581, ECE 632, and ECE 635 to item (2) as possible courses

2. Under item (2), add the following statement:
   a. Additionally, ECE 599 and ECE 692 may be applied with the consent of faculty in the power and energy area

3. Revise item (3). Remove current text and replace with the following as follows:
   a. One entrepreneurship, economics and innovation course (3 hours) selected from: ME 519 (or IE 557), MGT 552, or MGT 560.

Rationale: This change is to add new courses developed by EECS Power faculty in recent years to the acceptable courses to satisfy the technical concentration, and allow select special topics courses to apply when applicable. Additionally, MGT 552 (Entrepreneurial Strategy Implementation) and 560 (Monetization of Technology Enabled Social Media) are added as possible courses to satisfy the 3-credit Entrepreneurship, economics, and innovation course requirement. This change is made to give multiple course options from which the students may select one, to accommodate varying interests and schedules, as before only one course was applicable. IE 518 is removed due to the required 400-level IE course prerequisite, which EECS students are not expected to take. No changes are made to the structure or requirements for the certificate. Impact on other units: None. Financial impact: None.

REVISE REQUIREMENTS – ELECTRICAL ENGINEERING MAJOR, MS

In the 2014-15 Graduate Catalog, revise degree requirements to read as follows:

Electrical Engineering Major, MS
Admission
Applicants for admission to the MS program for electrical engineering are expected to have completed a bachelor's degree with an average of at least 3.0 out of 4.0, both overall and in the senior year. Applicants are required to submit scores from the general Graduate Record Examination (GRE) within the past three years and to have these scores sent to the Office of Graduate Admissions. A TOEFL score of 550 on the written exam or 80 on the Internet-based Test is required for non-native speakers of English, including those who have earned degrees at U.S. institutions. The score must be no more than two years old from the requested date of entry. Applicants who have received a degree from an accredited U.S. institution within the past two years are exempt from the TOEFL requirement. Applicants who hold the bachelor's degree in fields other than electrical or computer engineering will be required to take selected undergraduate courses as determined by the applicant's prior education and experience. The student will be admitted under non-degree status until the required undergraduate courses are successfully completed with a 3.0 average. An international student may not enroll as a non-degree student.

Requirements
Students may choose between a thesis option, a non-thesis course-only option, and a non-thesis project option. All students must file a Master's Program Plan with the departmental graduate committee specifying which option they have selected, a semester-by-semester schedule of the courses they intend to take, and the members of the student's master's committee. Students may change between options one time by filing an amended Master's Program Plan and with approval of the departmental graduate committee. A student who receives financial support under a research assistantship is enrolled in the thesis option by default. Students who have held a research assistantship will require approval from the departmental graduate committee to change to one of the non-thesis options.

For all options, a total of 30 credit hours are required. The course credits must satisfy

a. At least two-thirds of the total course credit must be at the 500-level or above.
b. A maximum of 6 credit hours of courses outside of the department may be applied toward the degree.
c. At least 6 credit hours must be in each of two separate areas of focus in electrical engineering and computer engineering.