

**Institute Undergraduate Curriculum Committee  
Appeals and Academic Matters (Full Committee)  
Tuesday, July 26, 2011**

**Present:** Seitzman (AE), Castro-Lacouture (ARCH), Ferri (ME), Senf (LCC), Bottomley (CHEM), Simon (REG – for Pikowsky)

**Visitors:** Laros (REG), Jacobs (CoE), Orlando (CoS), Halka (Honors), Nair-Reichert (ECON), Goodisman (BIOL), Sankar (AE), Vito (Provost), Williams (ECE)

**Note:** All action items in these minutes require approval by the Academic Senate. In some instances, items may require further approval by the Board of Regents or the University System of Georgia. If the Regents' approval is required, the change is not official until notification is received from the Board to that effect. Academic units should take no action on these items until USG and/or BOR approval is secured. In addition, units should take no action on any of the items below until these minutes have been approved by the Academic Senate or the Executive Board.

**Academic Matters**

1. A presentation was made by Dr. Vito for a multidisciplinary Energy Systems Minor. This Minor will be officially proposed at a later meeting.

The Energy Systems Minor would provide students a 15-hour multidisciplinary educational opportunity to study energy systems. It would include courses which provide depth in an area relevant to energy that is within the scope of the student's chosen program. Depth course options available to students might vary depending on the program. Appropriate courses are selected by program faculty to meet the needs of their students.

The minor would also include requirements for courses which cut across disciplines. These courses would be intended to add breadth of knowledge in areas outside the student's major but important to energy systems. A terminal "capstone" or project course would provide an opportunity for students from multiple disciplines to work together in multidisciplinary teams on a significant project in the energy area.

The minor would be open to all Georgia Tech undergraduate students whose majors have approved the minor. The breadth courses and the capstone project course, courses taken by all students completing the minor, require one or more pre-requisites; specifically, basic economics, mathematics and lab science courses. Students would ordinarily pursue the minor upon completion of the needed prerequisites.

Depth courses may ordinarily serve as technical or free electives in the student's program of study. However, courses required by name and number and/or used to satisfy Core Areas A through E cannot be used to satisfy the requirements of a minor. All courses in the minor also must be 3000 level and above. For multidisciplinary minors, up to six hours of courses in the student's major may, with the IUCC approval, count toward meeting the minor requirements.

The minor would require 6 hours of breadth courses (two courses). Students should strive to complete the necessary prerequisites and the depth courses prior to enrolling in the breadth courses. However, depth courses may be taken concurrently with the courses taken to meet the breadth requirement. Ordinarily, students would complete all minor requirements before registering for the Project in Energy Systems course (COE/COS/IAC 4xxx, 3 hours).

The committee discussed at length how multidisciplinary minors are distinct from other minors, specifically in terms of how they relate to the minor guidelines (namely #'s 5, 6, and 7), "ownership" of courses, pre-requisites and potential overrides for courses in the minor, as well as a minor capstone course. Dr. Vito informed the committee that all would be taken into consideration before their official request is brought forward to the committee.

2. An informational item from the School of Electrical and Computer Engineering was brought forth regarding a *Catalog* change. No concern was expressed about this change.

### **Bachelor of Science in Electrical Engineering Bachelor of Science in Computer Engineering**

The School of Electrical and Computer Engineering has had an ethics requirement for its undergraduates for many years and has allowed them to use any course having the ethics attribute. With the recent increase in the number of approved ethics courses, the ethics requirement posted in the General Catalog for BSEE and BSCmpE majors is not as complete as it should be, and we would like to broaden the statement to include all of the current ethics courses. Specifically, the School of Electrical and Computer Engineering would like its approved Ethics list for both programs to mimic the current Institute-approved list in the Catalog, as well as reflect any updates to the Institute list in the future.

Currently, the 2011-2012 Catalog contains this statement on the "Electives" pages for the BSEE and BSCmpE majors:

#### **ETHICS**

CS 4001, CS 4002, HTS 2084, HTS 3032, INTA 2030, LCC 3318, PST 3105, PST 3109, PST 3127, PST 4176, or PUBP 3600. This course is commonly taken as part of either the humanities or social science electives.

We would like to broaden this statement by pointing to the list of approved ethics courses that is now part of the General Catalog:

#### **ETHICS**

An approved ethics course ([www.catalog.gatech.edu/students/ugrad/core/ethics.php](http://www.catalog.gatech.edu/students/ugrad/core/ethics.php)) must be included in the elective hours.

This change would provide a link to the Ethics list in catalog that is maintained by the Registrar's Office.

3. A motion was made to approve a request by the Office of Vice Provost of Graduate and Undergraduate Studies for a new reserved numbering pattern for Internship for Pay and for Credit courses. The motion was seconded and approved.

#### **NEW COURSE NUMBERING:**

XXXX 2694: Undergraduate Internship for Pay  
XXXX 2695: Undergraduate Internship for Credit  
XXXX 4694: Undergraduate Internship for Pay  
XXXX 4695: Undergraduate Internship for Credit

Schools that wish to develop Internship courses will need to submit NCP's to the IUCC. A template of this approved course type will be available as a resource to use.

Part of the rationale explained by Dr. Vito was that a uniform course and numbering system for such courses would allow for better data tracking as well as provide GT students a clear record on their transcript. The courses used for undergraduate research were pointed to as a model.

The committee raised some concern over who determines what opportunities qualify as an internship for pay, to which Dr. Vito explained it would be a programmatic decision. These courses are intended to provide academic units a consistent option for internship offerings, both for pay and for academic credit. Dr. Vito will work with the Registrar on sending out communication to academic units about the new reserved numbers, as well as a call for NCP's.

After additional conversation, a suggestion was made to eliminate Audit as a grading option for the internship for academic credit. Dr. Vito concurred.

4. A motion was made to approve a request from the School of Chemistry and Biochemistry for degree modifications, adding a degree option, deactivation of certificates, and deactivation of courses. The motion was seconded and approved.

#### **DEGREE MODIFICATIONS:**

Bachelor of Science in Chemistry - Biochemistry Option  
Bachelor of Science in Biochemistry

- CHANGE BIOL 3450 (Cell and Molecular Biology) and/or BIOL 3451 (Cell and Molecular Biology Lab) for the BS Chemistry-Biochemistry Option as Biochemistry Electives.  
NOTE: Permit students who have previously taken BIOL 3340 (Cell Biology) and/or BIOL 3341 (Cell Biology Lab) to receive credit towards their degree. **Reference IUCC 494.**
- CHANGE BIOL 3450 for the BS Biochemistry major and options (as listed below) as a Biology Elective.  
NOTE: Permit students who have previously taken BIOL 3340 (Cell Biology) to receive credit towards their degree. **Reference IUCC 494.**

- **ADD** CHEM 4765 (Drug Design, Development and Delivery) to the list of approved Biochemistry Electives for BS Chemistry-Biochemistry track and Biology Electives for BS Biochemistry major and options (as listed below).

Bachelor of Science in Chemistry - Business Option

- **DEFINE** the “Business Option” study plan for the BS in Chemistry program using the MANAGEMENT ELECTIVES for Business Option coursework approved for use by College of Sciences’ schools. **Reference IUCC 540.**
- **REPLACE** 3 credit hours of Free Electives with a CHEMISTRY ELECTIVE (3 hours). The change parallels similar chemistry content in the BS CHEM – traditional track degree.

**ADD A DEGREE OPTION:**

Bachelor of Science in Biochemistry - Business Option

The faculty of the School of Chemistry and Biochemistry request to establish a “Business Option” for the BS Biochemistry program with the same MANAGEMENT ELECTIVES for business option coursework proposed across all College of Science schools. **Reference IUCC 540.**

**DEACTIVATE CERTIFICATES:**

Biochemistry/Organic Chemistry  
 Chemical Analysis  
 Physical/Inorganic Chemistry

The Certificate Programs were replaced with two new minors and the last known student in these programs was granted a certificate in Spring 2011.

**DEACTIVATE COURSES:**

CHEM 1311  
 CHEM 1312

Both courses were replaced by CHEM 1212K Chemical Principles II (4 credits) starting in Fall 2010.

Permit students who have taken CHEM 1311 and 1312 prior to this deactivation to receive credit toward their degrees, as appropriate.

**Administrative Items:**

1. The following administrative items were presented by the Registrar’s Office for notification purposes. Discussion and voting were not needed on these items.

- In the April 19, 2011 IUCC minutes, the course title for ID 3510 was listed incorrectly as **Interactive Projects**. The correct title of the course is **Interactive Products**. The correct title was recorded in Banner.
  
- Project 540, Business Option for all College of Science Bachelor's Degrees, was passed per an email vote of the IUCC on April 26, 2011. This is to document that approval in the minutes.
  - Modify the selection of courses that students may take to satisfy requirements for the business option (while retaining the 15-credit requirement).
  - Add the BS in Biochemistry degree to the existing list of BS programs for which this option is currently approved.

Adjourned,

Robert Simon for  
Reta Pikowsky  
Registrar