

# Institute Undergraduate Curriculum Committee

Fall Meeting

Faculty, Faculty Senate, & Academic Faculty Senate

Tuesday, October 21, 2014

3:00-5:00 PM

Student Center Theatre

# Report, Action Items, Minutes

- Presented by:
  - Dr. Laura Hollengreen, ARCH
  - Dr. Rhett Mayor, ME
- 2013-2014 Annual Report
- Action Items
- Minutes for Approval

# Annual Report

## 2013-2014 Membership

**Members:** Roberta Berry (PUBP), Thanos Economou (ARCH), Mike Goodisman (BIOL), Matt Higgins (Business), Laura Hollengreen (ARCH), Benjamin Klein (ECE), Michael Loss (MATH), Pete Ludovice (ChBE), Blair MacIntyre (CoC-IC), Rhett Mayor (ME), Reta Pikowsky (REG), Colin Potts (VP-Undergraduate Education), Mark Riedl (CoC-IC), George Riley (ECE), Lakshmi Sankar (AE), David Scott (CEE), Carol Senf (LMC), Jenny Singleton (PSYC), Marc Smith (ME), John Stein (ODOS), Francis Ulgado (Business), Wilkinson (CHEM & BIOCHEM), Yaszek (LMC), Meka (Undergraduate Student), Martha Grover (Executive Board Liaison)

# Annual Report

**Meetings:** The IUCC held 23 meetings during the 2013-2014 academic year plus additional subcommittee meetings on focused topics (General Education and Study Abroad).

**Work of the Committee:** The work of the Committee falls into four main categories (Curriculum Matters, Student Petitions, General Education, and Study Abroad). Activities in each of these areas are outlined below. The Curriculum Committees are no longer involved in the program review process.

**Leadership and Support:** Dr. Laura Hollengreen served as Chair of the Committee. Dr. Rhett Mayor served as Vice Chair of the Committee. Reta Pikowsky served as Secretary for the Committee.

# Annual Report

- Details of the following items can be found in the Annual Report. This is a summary of areas addressed by the Committee.
  - **Catalog/Academic Policy Changes**
    - Approval of academic content delivered through online format and at international locations
  - **Administrative/Informational Items**
    - Operation and membership of subcommittees
    - General Education Subcommittee procedures
    - X-degree proposal
    - New type of certificate program
    - Use of MATH 3670 in BSEE and BSCOMPE
  - **Curricular Matters**
    - New program prospectus (BS in Music Technology)
    - New BS/MS degree, INTA

# Annual Report

- Details of the following items can be found in the Annual Report. This is a summary of areas addressed by the Committee.
  - **Curricular Matters**
    - New degree option, BS ARCH joins Research Option
    - New minors (see Annual Report for complete list)
    - New Certificates (see Annual Report for complete list)
    - Deactivation of a certificate (Software Engineering)
    - Termination of degrees (Undesignated BS degrees and degrees that were already deactivated)
    - Degree Modifications (see details in the Annual Report)
      - BS-Economics
      - BS-Industrial Engineering
      - BS-Applied Linguistics and Intercultural Studies

# Annual Report

- Details of the following items can be found in the Annual Report. This is a summary of areas addressed by the Committee.
  - **Curricular Matters**
    - Degree Modifications (see details in the Annual Report)
      - BS-Aerospace Engineering
      - BS-Computer Science (Intelligence Thread)
      - BS-Earth and Atmospheric Sciences
      - BS-History, Technology, Society
      - BS-Computational Media
      - BS-Mechanical Engineering
      - BS-Computer Science
      - BS-Electrical Engineering
      - BS-Chemistry (traditional and Business Concentrations)

# Annual Report

- Details of the following items can be found in the Annual Report. This is a summary of areas addressed by the Committee.
  - **Curricular Matters**
    - Degree Modifications (see details in the Annual Report)
      - BS-Computer Science, Intelligence & Systems Architecture Concentration
      - BS-Biology
    - Minor Modifications (see details in the Annual Report)
      - Law, Science, and Technology
      - Chemistry
      - Energy Systems
      - Engineering and Management
      - Computing and Management
      - Leadership Studies



# Annual Report

- Details of the following items can be found in the Annual Report. This is a summary of areas addressed by the Committee.
  - **Curricular Matters**
    - Certificate Modifications (see details in the Annual Report)
      - Law, Science, and Technology
      - Land Development (change name to Real Estate Development)
      - Applied Physiology
    - Course Number corrections/changes (see details in Annual Report (LMC courses))
    - New courses (see details in Annual Report)
      - Aerospace Engineering
      - Applied Physiology
      - Biology

# Annual Report

- Details of the following items can be found in the Annual Report. This is a summary of areas addressed by the Committee.
  - **Curricular Matters**
    - New courses (see details in Annual Report)
      - Civil Engineering
      - Chemistry
      - College of Sciences
      - Computer Science
      - Earth and Atmospheric Sciences
      - Electrical and Computer Engineering
      - Economics
      - Georgia Tech (GT prefix)
      - History, Technology, Society
      - International Affairs
      - Literature, Media, and Communication
      - Mathematics
      - Mechanical Engineering
      - Management
      - Russian
      - Spanish

# Annual Report

- Details of the following items can be found in the Annual Report. This is a summary of areas addressed by the Committee.
  - **Curricular Matters**
    - Change in course title, RUSS 1250
    - Deactivated courses (see complete list in Annual Report)
    - Courses made repeatable for credit (HTS 4061 & 4086)
    - New courses with Core attributes (see complete list in Annual Report)
    - Existing courses with Core attributes (see complete list in Annual Report)
    - Updates to the International Plan

# Annual Report

- Details of the following items can be found in the Annual Report. This is a summary of areas addressed by the Committee.
  - **Student Petitions and Appeals**
    - The IUCC acted on 278 petitions, reviewed 16 written appeals of denied petitions, and heard zero in-person appeals of a denied petition. Reviewed by the Registrar, under the authority of the Committee, were 411 petitions including requests such as readmission after the first drop, use of a “D” for a degree-acceptable grade when the second attempt of the course resulted in an F grade, and requests to return in the following term after withdrawing.
    - Of the 689 petitions that were acted on, 148 (21.5%) were denied. Of the 16 appeals, 4 (25%) were denied. Petitions that are handled administratively by the Registrar are sent on to the committee for regular processing only as needed.

# Annual Report

- Details of the following items can be found in the Annual Report. This is a summary of areas addressed by the Committee.
  - **General Education Subcommittee**
    - Meetings were held on August 26, 2013, October 1, 2013, October 9, 2013, November 13, 2013, December 12, 2013, January 17, 2014, March 4, 2014, April 29, 2014, and June 3, 2014.
    - See Annual Report for details on areas addressed.
  - **Study Abroad Subcommittee**
    - In 2013-14, the Study Abroad Subcommittee reviewed and approved proposals for 1 spring semester faculty-led study abroad program, 4 spring semester embedded study abroad programs, 27 summer faculty-led study abroad programs, and heard 0 student appeals.

# Annual Report

- Details of the following items can be found in the Annual Report. This is a summary of areas addressed by the Committee.
  - **Study Abroad Subcommittee, continued**
    - Four summer programs were cancelled due to low enrollment, and 1 of the embedded study abroad programs did not run due to contractual issues with the instructor.
    - The Committee held two meetings during Fall Semester 2013, one meeting during Spring Semester 2014, and conducted the rest of its business by e-mail.

# Action Items

- **From the June 17, 2014 Minutes**
  - **New Courses**
    - ECE 4446: Audio Engineering Laboratory 0-3-1
    - ECE 4452: Integrated Circuit Fabrication 2-3-3
    - ECE 4502: Optical Fiber Communications 3-3-4
    - ECE 4612: Telecommunications Systems Laboratory 0-3-1
    - ECE 1010: Introduction to ECE Design 1-3-2
    - ECE 3150: VLSI and Advanced Digital Design 3-3-4
    - ECE 4122: Advanced Programming Techniques for Engineering Applications 2-3-3
    - ECE 4181: Embedded Computing Systems 3-3-4
    - ECE 4350: Electromagnetic and Microwave Applications 3-0-3
    - ECE 4563: Game Theory and Multiagent Systems 3-0-3

# Action Items

- **From the June 17, 2014 Minutes**
  - **Course Description Modification**
    - ECE 3710: Circuits and Electronics
      - The current description is:
        - » An introduction to electric circuit elements and electronic devices and a study of circuits containing such devices. Both analog and digital systems are considered.
        - » Delete the phrase “*Both analog and digital systems are considered.*” since we cover very little digital systems in this course. That part of the course was relatively minor before and has since been shortened to one lecture period.
      - Thus the new course description becomes:
        - » An introduction to electric circuit elements and electronic devices and a study of circuits containing such devices.



# Action Items

- **From the June 17, 2014 Minutes**
  - **Degree Modification – BS in Electrical Engineering**
    - Modify the list of courses that can be used as a senior lab elective for the BSEE degree.
    - The current list is:
      - ECE 4043 or ECE 4180 or ECE 4185 or ECE 4550 or (ECE 4445 and ECE 4881)
    - Change to:**
      - ECE 4043 or ECE 4180 or ECE 4185 or ECE 4446 or ECE 4452 or ECE 4502 or ECE 4550 or ECE 4612 or ECE 4752 or ECE 4881 or ECE 4884B

# Action Items

- **From the June 17, 2014 Minutes**
  - Degree Modification – BS in Electrical Engineering, continued
    - Note that the School is not requesting a change in the number of credit hours required for the degree. This would simply be an increase in the number of courses from which students could choose a senior lab elective. The goal is to give students more options in a broader range of areas within electrical engineering.
    - These new courses have either been offered previously as special topics classes or are modifications of existing courses. After review and discussion by the ECE Undergraduate Committee, these courses have been determined to be suitable as options for the BSEE senior lab elective.

# Action Items

- **From the June 17, 2014 Minutes**
  - Existing Course, add Core attribute, Social Science
    - HTS 3048: Modern Russian History 3-0-3
  - New Courses with Core attribute, Social Science
    - HTS 3027: The Civil Rights Movement 3-0-3
    - HTS 3071: Sociology of Crime 3-0-3
    - HTS 3072: Sociology of Education 3-0-3
    - HTS 3088: Race, Medicine, and Science 3-0-3
    - PSYC 2005: Exploring Multicultural Identities 3-0-3
  - New Courses with Core attribute, Humanities and Global Perspectives
    - RUSS 3350: Russian and American Mass Cultures 3-0-3
  - New Courses with Core attribute, Humanities
    - LMC 3215: Science Fiction Film and Television 3-0-3
    - LMC 3244: Modern and Contemporary British Poetry 3-0-3

# Action Items

- **From the July 22, 2014 Minutes**
  - Degree Modification – BS in Chemistry, Traditional and Business Concentrations
    - Changes to Program:
      - Additional Major Requirements: Add CHEM 4695 (UG internship) to list of courses excluded. CHEM 4695 and 4699 are required in another category for the BS CHEM degree
      - Technical Electives: Add MATH 2403, Differential Equations, to Technical Electives for the BS CHEM traditional track only. Although not required, this will help some students better prepare for CHEM 3412, Physical Chemistry II (Quantum Mechanics)

# Action Items

- **From the July 22, 2014 Minutes**
  - **Certificate Modification – Applied Physiology**
    - **Note:** Approved with the additions of APPH 3754 and 3756 as Electives.
    - Add 2 new courses that are required (APPH 3753 and APPH 3755) in place of a single required course (APPH 3751) that is no longer being taught. There are also new courses available in APPH that we have added to the pick list of electives to select.
    - For electives, students must select at least one additional APPH course totaling 3 credit hours (9 hours total in APPH). Previously this APPH elective requirement was “two courses for at least 4 hrs.” Optional elective course list outside of APPH has not been altered.
    - In summary, the 12 hr certificate consists of: 6 hr of required APPH courses, 3 hour elective APPH, and 3 hr elective APPH OR outside APPH (from approved list which has not changed).

# Action Items

- **From the July 22, 2014 Minutes**
  - **New Minor**
    - Minor in Physiology
  - **Degree Modification – BS in Environmental Engineering**
    - Remove CEE 4300 from BSENV E as a required course.
      - Note: The pre-requisites for CEE 4300 were added to the list of courses for which CEE 4300 was itself a pre-requisite.
    - Add CEE 4300 to approved Technical Elective Focus and increase credit hours from 12 to 15.
    - This provides ENVE students with more options towards their Technical Elective Focus. Total hours for the degree remain the same at 129.

# Action Items

- **From the July 22, 2014 Minutes**
  - **Deactivate a Certificate**
    - Certificate in Software Engineering
  - **Degree Modification – BS in Computer Science**
    - Adding CS 3240 back as a course option with CS 4510 on the Intelligence and Systems Architecture concentration.
    - This class was mistakenly removed because Systems and Architecture was no longer teaching CS 3240 but it is still a course option for the Intelligence thread.
    - Since we will be teaching CS 3240, the course needs to be added back.
    - Students can either choose taking CS 3240 OR CS 4510.

# Action Items

- **From the August 12, 2014 Minutes**
  - **New Course with Core attributes, Social Science and Global Perspectives**
    - INTA 3260: Middle East Relations 3-0-3
    - INTA 1050: The World Today 3-0-3
  - **New Courses**
    - INTA 4744: Global Development Capstone 3-0-3
    - ME 4744: Global Development Capstone 3-0-3
  - **New Interdisciplinary Minor**
    - Minor in Global Development
      - The minor in Global Development will prepare students to be empathetic catalysts for improving the lives of the world's vulnerable communities in a sustainable manner.



# Action Items

- **From the August 12, 2014 Minutes**
  - **New Interdisciplinary Minor**
    - Minor in Global Development
      - Students will learn and apply analytical skills and practical problem-solving techniques, gain technical competence, learn sensitivity to local cultures and social conditions, and master the ability to collaborate across disciplines to solve problems in Global Development.
      - Students will learn to define problems, facilitate and contribute to their solutions, and, in the process, become more objective, non-linear thinkers with the capacity to synthesize data and seek and value perspectives other than their own.
      - The Global Development minor will require 15 semester hours of coursework with at least 9 hours of upper-division coursework. Courses taken to satisfy Core Areas A through E may not be counted as coursework in the minor. Students must earn at least a "C" in each course.

# Action Items

- **From the August 12, 2014 Minutes**
  - **New Interdisciplinary Minor**
    - Minor in Global Development
      - Minor requirements:
        - » 1 required Cornerstone course (INTA 2050 - Introduction to Global Development) - 3 hours
        - » 3 elective hours from a list of approved electives - 9 hours
        - » 1 required Capstone course (INTA/ME 4744 - Global Development) - 3 hours
  - **New Course**
    - BIOL 4460: Communicating Biological Research 3-0-3
  - **Deactivate Course**
    - BIOL 4450: Senior Seminar

# Action Items

- **From the August 12, 2014 Minutes**
  - Degree Modification – BS in Biology
    - The School of Biology is requesting to update information on the Biology degree program to reflect:
      - Changes to the names of classes required by the Biology major
      - Recently approved modifications to the Biology Quantitative Requirement
        - » Thus, there are no substantive changes to the content of the major.
      - The names of classes were changed so as to better reflect the content of the courses. Specifically:
        - » MATH 1501 SB 'Calculus I' was changed to MATH 1503 'Calculus I for Life Sciences'
        - » MATH 1502 SB 'Calculus II' was changed to MATH 1504 'Calculus II for Life Sciences'
        - » BIOL 4450 'Senior Seminar' was changed to BIOL 4460 'Communicating Biological Research'

# Action Items

- **From the August 12, 2014 Minutes**
  - Degree Modification – BS in Biology, continued
    - The Biology Quantitative Requirement was recently amended to provide more rigor by allowing only the following classes to count towards the requirement: BIOL 2400 Mathematical Models in Biology or BIOL 4150 Genomics & Applied Bioinformatics or BIOL 4401 Experimental Design & Biostatistics.

# Action Items

- **From the September 2, 2014 Minutes**
  - There were no action items from this set of Minutes.
- **From the September 16, 2014 Minutes**
  - There were no action items from this set of Minutes.
- **From the October 7, 2014 Minutes**
  - **Modify Course Description**
    - The Sam Nunn School of International Affairs wishes to revise the course description for **INTA 4040, Environmental Politics**. This course has been taught on the Pacific Study Abroad Program (2012) and will be taught on the Oxford Study Abroad Program in 2015.
    - The scope of the course includes societies in the developed world, thus the current description is not accurate. Proposed language is below showing three words being requested to be deleted from current catalog description.

# Action Items

- **From the October 7, 2014 Minutes**
  - **Modify Course Description, continued**

Current description: "Examines the interface between politics and the environment. ~~in developing countries.~~ Foci include sustainable development, the politics of the rain forest, eco-tourism, and export agriculture and the environment."

Proposed description: "Examines the interface between politics and the environment. Foci include sustainable development, the politics of the rain forest, eco-tourism, and export agriculture and the environment."

# Action Items

- **From the October 7, 2014 Minutes**
  - **New Course**
    - CS 4057: Business Process Analysis and Design      3-0-3
  - **Minor Modification**
    - Request to move from 7 Minor “Tracks” to Individual CS and require a CS Minor Application.
      - Current: Minor in Computer Science (with tracks)
        - » *Devices Track*
        - » *Information Internetworks Track*
        - » *Intelligence Track*
        - » *Media Track*
        - » *People Track*
        - » *Systems and Architecture Track*
        - » *Theory Track*

# Action Items

- **From the October 7, 2014 Minutes**
  - **New Course**
    - CS 4057: Business Process Analysis and Design 3-0-3
  - **Minor Modification, continued**
    - Proposed: Change to 7 New Computing minors:
      - *Computing & Media*
      - *Computing & People*
      - *Computing & Intelligence*
      - *Computing & Devices*
      - *Computing & Information Internetworks*
      - *Computing & Systems and Architecture*
      - *Computing & Theory*
    - Rational: With the recent explosion of students applying for the CS minor we need a way to track students in each minor and predict which courses they will need. Furthermore, students can now avoid the whole experience we wish them to have by declaring the minor, taking unrelated courses, then dropping the minor.



# Minutes

- Move to approve Minutes from the following including all action items just reviewed:
  - April 29, 2014 (Petitions)
  - May 13, 2014 (Petitions)
  - June 3, 2014 (Petitions)
  - June 17, 2014
  - July 8, 2014 (Petitions)
  - July 22, 2014
  - August 12, 2014
  - August 19, 2014 (Petitions)
  - September 2, 2014
  - September 16, 2014
  - October 7, 2014