

**Georgia Institute of Technology**  
**Institute Undergraduate Curriculum Committee**  
**2012-2013 Annual Report**

**October 22, 2013**

**3-5:00 p.m.**

Student Center Theater

Fall Meeting of the General Faculty, General Faculty Assembly, & Academic Senate  
including Standing Committee Annual Reports

**Members:** 24

**Meetings:** The IUCC held 24 meetings during the 2012-2013 academic year plus additional meetings on focused topics (General Education and Study Abroad). The work of the committee falls into four main categories (Curriculum Items, 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.

Dr. Pradeep Agrawal served as Chair of the Committee. Dr. Laura Hollengreen served as Vice Chair of the Committee. Reta Pikowsky served as Secretary for the Committee.

### **Curriculum Items**

Over the 2012-2013 academic year, the IUCC approved several modifications and additions to Georgia Tech's degrees, minors, certificates, and courses that carry Core attributes. Catalog policy changes were approved along with new courses and deactivation of courses.

#### Catalog Changes/Academic Policy Changes

- Change in International Plan rules – language proficiency (see 4/16/13 Minutes for details)
- College of Computing correction to the current catalog to replace the currently listed CS versions in nine degree concentrations with the previously approved CX versions of courses (see 6/18/13 Minutes for details)

#### Administrative Items:

- The Committee issued a policy statement to the Provost's Office in regard to the diploma (see the November 6, 2012 Minutes for details).
- Discussion of the Provost's Curriculum Committee and its handling of course proposals from non-academic units

#### Informational Items:

- At the November 6, 2012 meeting, a guest panel was invited to discuss Tech's participation in Coursera online course initiatives. Three major questions were discussed.

- At this point, Coursera courses are non-credit, free of charge, and no support structure is required, except that which the faculty member needs. Is this expected to continue, and, if so, for how long?
- If the decision is made to award academic credit for these courses, how will that decision be made and who would be in charge of addressing the necessary administrative and infrastructure questions?
- If the decision is made to award academic credit for these courses, how will student performance be assessed?

These remain open questions. Because Georgia Tech's MOOC offerings are still in an experimental phase, the answers are still evolving and there was little definite or hard information the invited guests were able to offer.

New Degrees:

- None

Degree Modifications:

- Bachelor of Science in Building Construction
- Bachelor of Science in Mechanical Engineering
- Bachelor of Science in Industrial and Systems Engineering
- Bachelor of Science in Psychology
- Bachelor of Science in Earth and Atmospheric Sciences
- Bachelor of Science in International Affairs and Modern Languages
- Bachelor of Science in Global Economics and Modern Languages
- Bachelor of Science in Applied Language and Intercultural Studies
- Bachelor of Science in Building Construction
- Bachelor of Science in Aerospace Engineering
- Bachelor of Science in Mechanical Engineering
- Bachelor of Science in Computational Media
- Bachelor of Science in Industrial Design
- Bachelor of Science in Psychology
- Bachelor of Science in Physics
- Bachelor of Science in Architecture
- Bachelor of Science in Business Administration
- Bachelor of Science in Biology
- Bachelor of Science in Computer Science (6/23/13 Minutes, item #1 is incorrect, lists the degree as "Bachelor of Science in Computing", corrected in later Minutes)
- Bachelor of Science in Mechanical Engineering (concentration in Nuclear Energy)

Degree Name Change:

- Bachelor of Science in Science, Technology, and Culture to Bachelor of Science in Literature, Media, and Communication (with concentrations)

### New Minors:

- Scientific and Engineering Computing
- Computational Data Analysis
- Industrial Design
- Science, Technology, and Society

### Minor Modifications:

- Leadership Studies
- Law, Science, and Technology
- Energy Systems
- Minor in Philosophy of Science and Technology – name of minor changed to Minor in Philosophy
- Minor in Earth and Atmospheric Sciences
- Law, Science, and Technology
- Chemistry
- Biochemistry
- Mathematics
- Computer Science

### Certificate Modifications:

- Pre-Law
- Certificate in Philosophy of Science and Technology – name of Certificate changed to Certificate in Philosophy
- Certificate in Pre-Law
- International Management – name of Certificate changed to Certificate in International Business

### New Subject Codes:

- CX – College of Computing
- HIN (Hindi)
- LMC – Literature, Media, Communication replaces LCC
- COS – College of Sciences

### New Courses:

#### BC 4672: MEP Systems

- APPH 4400: Human Neuroanatomy
- APPH 1050: The Science of Physical Activity and Health
- MATH 1503: Calculus I for the Life Sciences – [Denied by the Academic Senate](#)
- MATH 1504: Calculus II for the Life Sciences – [Denied by the Academic Senate](#)
- EAS 4370: Physics of Planets
- EAS 4656 Atmospheric Dynamics Practicum
- EAS 4670: Atmospheric Dynamics II
- CX 4010: Computational Problem Solving for Scientists and Engineers
- CX 4240: Introduction to Computing for Data Analysis
- CX 4242: Data and Visual Analytics

- Note: The following are existing courses that are being reinvented with the new CX subject code. The content and titles are not being changed from their current “CS” designation.
  - CX 4140: Computational Modeling Algorithms
  - CX 4220: Introduction to High Performance Computing
  - CX 4230: Computer Simulation
  - CX 4232: Simulation and Military Gaming
  - CX 4236: Distributed Simulation
  - CX 4640: Numerical Analysis I
  - CX 4641: Numerical Analysis II
  - CX 4777: Introduction to Parallel and Vector Scientific Computing
  - CX – all Special Topics numbers
- APPH 1040 – Scientific Foundations of Health (replaces HPS 1040)
- BMED 4740 – Biologically Inspired Design (cross-listed with existing courses)
- LMC 2800: Introduction to Literature, Media, and Communication
- LMC 2850: Seminar in Literature, Media, and Communication
- JAPN 4183: Japanese Culture and Society through Songs
- CHIN 4022: Kungfu Fiction
- MGT 3605: Principles of Commercial Law
- MGT 4401: Supply Chain Modeling
- MGT 3662: Management in the Healthcare Sector
- ID 2021: Industrial Design Studio 1
- ID 2022: Industrial Design Studio 2
- ID 3031: Health Design Studio 1
- ID 3032: Health Design Studio 2
- ID 3041: Product Development Studio 1
- ID 3042: Product Development Studio 2
- ID 3051: Interactive Product Design Studio 1
- ID 3052: Interactive Product Design Studio 2
- ID 4061: ID Capstone Design Studio 1
- ID 4062: ID Capstone Design Studio 2
- ID 4071: Invention Studio 1
- ID 4072: Invention Studio 2
- ID 4081: ID/ME Collaborative Design Studio 1
- ID 4082: ID/ME Collaborative Studio 2
- PHYS 4147: Relativity
- PHYS 4247: Cosmology
- PHYS 4347: Fundamentals of Astrophysics
- APPH 3753: Fundamentals of Anatomy
- APPH 3754: Laboratory of Human Anatomy
- APPH 3755: Human Physiology
- APPH 3756: Laboratory in Human Physiology
- BIOL 3753: Fundamentals of Anatomy (cross-listed with APPH)
- BIOL 3754: Laboratory in Human Anatomy (cross-listed with APPH)
- ARCH 2472: Architecture Modeling and Media 2
- ARCH 2474: Architecture Modeling and Media 3
- MGT 3082: Fundamentals of Real Estate Development

- MGT 3663: Technology Strategy
- GT 1201: Exploring Grand Challenges
- GT 2201: Grand Challenges Research (1 hour)
- GT 2202: Grand Challenges Research (2 hours)

#### Re-Approval of Existing Courses

This is required under the policy that governs non-academic units that offer courses for credit.

- CETL 2000 Undergraduate TA Prep
- CETL 2001 Fund of Peer Tutoring
- CETL 3000 Residence Life Seminar (conditional on revising learning objectives)
- CETL 4801 Special Topics
- CETL 4802 Special Topic
- CETL 4803 Special Topic

#### Update to the International Plan Course List

- International Relations Category
  - HTS 2100 Science, Technology and the Modern World
  - HTS 3055 Globalization in the Modern Era
- Country/Regional Category
  - HTS 2040 History of Islamic Societies
  - HTS 2041 History of the Modern Middle East
  - HTS 3030 Medieval Europe
  - HTS 3046 Science and Technology in Nazi Germany
  - HTS 3051 Women in the Middle East
  - HTS 3069 History of Cuba
  - CHIN 3692 Business Chinese
  - CHIN 3696 Economic Development and Sustainability in China
- Capstone Course – International Plan
  - HTS 4091 Seminar in Global Issues

#### Deactivated Courses:

- BC 4670: Construction Industry Issues and Initiatives
- CS 4140 changing to CX 4140 (Comp Model Algorithms)
- CS 4225 changing to CX 4220 (Intro to HPC)
- CS 4335 changing to CX 4230 (Computer Simulation)
- CS 4343 changing to CX 4232 (Sim & Military Gaming)
- CS 4230 changing to CX 4236 (Distributed Sim Systems)
- CS 4642 changing to CX 4640 (Numerical Analysis I; cross-list M 4640)
- CS 4643 changing to CX 4641 (Numerical Analysis II; cross-list M 4641)
- CS 4777 changing to CX 4777 (Vector & Par Sci Comp; cross-list M 4777)
- JAPN 3002
- JAPN 3062
- JAPN 4133
- LING 2760
- LING 3010
- LING 3750

- LING 4002
- LING 4065
- HPS 1040 (replaced with APPH 1040)
- PHYS 4146
- MGT 4310

Courses Requesting Core Attributes- Approved:

- ARCH 3135: City Literacy (SocSCI and Global)
- INTA 3242: Soccer and Global Politics (SocSci and Global)
- RUSS 1250: Vampires and Memory of Stalinism in Post-Soviet Russia (HUM)
- PERS 1001: Elementary Persian I (HUM)
- PERS 1002: Elementary Persian II (HUM)
- LMC courses that were already approved and changed from LCC
- HTS 3055: Globalization (Global)

Courses Requesting Core Attributes- Denied or Tabled:

- Details are available from the General Education Subcommittee

Courses with Changed Pre-requisites:

- MSE 4761 (remove CS 1371 and add CS 3710)
- BC 4730 (adding BC 4720 as prerequisite)
- BIOL 3450, 3451, 4015, 4418, 4446 4464, 4478, 4570, 4590, 4696, 4752 (see 9/4/12 Minutes for details)
- PUBP 4010 (remove PUBP 3020)
- PSYC 2020 (remove ISYE 2027)
- MSE (see 1/15/13 Minutes for details)
- CHBE (see 3/2/13 Minutes for details)
- ID 2320
- ID 2401
- ID 3320
- ID 4833
- MGT 3660
- ME (see 6/18/13 Minutes for details)
- CS 4240
- CS 4392
- COE 2001
- COE 3001

Advanced Standing Credit

- Allow Advanced Standing Credit for GRMN 3XXX based on the DSD (Das Deutsche Sprachdiplom (DSD) certificate during their high school programs)

**Student Petitions and Appeals:** The IUCC acted on 353 petitions, reviewed 11 written appeals of denied petitions, and heard 1 in-person appeal of a denied petition. Approved by the Registrar, under the authority of the Committee, were 405 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 758 petitions that were acted on, 139 (18.33%) were denied. Of the 12 appeals, 3 (25%) were denied. Petitions that are handled administratively by the Registrar are sent on to the committee for regular processing only as needed.

2012-2013	353 petitions, 11 written appeals, 1 in-person appeals, 405 petitions handled administratively (770)
2011-2012	431 Petitions, 16 written appeals, 0 in-person appeals, 356 petitions handled administratively (787)
2010-2011	408 petitions, 18 written appeals, 5 in-person appeals, 312 petitions handled administratively (743)
2009-2010	481 petitions, 14 written appeals, 3 in-person appeals, 306 petitions handled administratively (804)
2008-2009	430 petitions, 11 appeals, 313 petitions handled administratively (754)
2007-2008	558 petitions, 11 appeals, 213 petitions handled administratively (882)
2006-2007	576 petitions, 36 appeals, 298 petitions handled administratively (910 total)
2006-2007	579 petitions, 21 appeals, 140 petitions handled administratively (740 total)

#### **General Education Subcommittee:**

Dr. Larry Bottomley, Chemistry, served as the Chair of the General Education Subcommittee during academic year 2012-2013. During the Fall 2012 semester, meetings were held on September 17, October 8, November 5, and December 3. During the Spring 2013 semester, meetings were held on January 28, February 25, March 25, and April 22. The Subcommittee typically does not meet during the Summer term.

Areas addressed by the Subcommittee during the year included:

- Planning for the upcoming SACs review
- Implemented a course syllabus collection process for archival purposes and facilitate review of courses that have core area attributes
- Established guidelines for reviewing the syllabi in each core
- Initiated a preliminary review of course syllabi within each core
- Established Guidelines for all courses seeking to carry Core attributes:
  - All courses must present a syllabus that includes learning outcomes; at least one of which must mesh with the learning goals of the core area
  - Not have prerequisites
  - Not be “special topics” courses
  - Not be taught at advanced levels
    - 4000-level courses will no longer be approved
    - 3000-level courses will require sound justification for inclusion

- Established a process for all courses seeking to carry Core attributes:
  - Be approved by the General Education Subcommittee,
  - Reported to the IUCC,
  - Be approved by the appropriate BOR Academic Advisory Committee,
  - Be approved by the BOR General Education Council
  - approved by the BOR General Education Council
- Learning outcomes for each Core area were approved by the USG Council on General Education
- Assessment to ensure that our Gen Ed courses are adequately addressing the Learning Outcomes:
  - Assessment methods and procedures were designed for each core area
  - Methods of assessment were implemented in three core areas
  - Assessment across all core areas will be fully implemented in the Fall Semester of 2013.

### **Study Abroad Subcommittee:**

In 2012-13, the Study Abroad Subcommittee reviewed and approved proposals for 1 fall semester embedded study abroad program, 1 spring semester faculty-led program, 3 spring semester embedded study abroad programs, 27 summer faculty-led programs, and heard 0 student appeals. One summer program was cancelled due to low enrollment, and 2 of the embedded study abroad programs did not run due to lack of funding promised by the host. The Committee held two meetings during Fall Semester 2012, one meeting during Spring Semester 2013, and conducted the rest of its business by e-mail.

Submitted by:

Dr. Pradeep Agrawal, CHBE  
Chair, IUCC, 2012-2013