

Institute Graduate 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. Victor Breedveld
- 2013-2014 Annual Report
- Action Items
- Minutes for Approval

Annual Report

2013-2014 Membership

Baabak Ashuri (CoA-BC), Sasha Boldyreva (CoC-CS), Victor Breedveld (ChBE), Susan Cozzens (VP-Graduate Education & Faculty Affairs), Rob Dickson (CHEM & BIOCHEM), Bonnie Ferri (ECE), Benjamin Flowers (ARCH), Jim Foley (CoC-IC), Jeff Jagoda (AE), Sundaresan Jayaraman (MSE), Paul Kvam (ISyE), Kristie Macrakis (HTS), Paul Neitzel (ME), Reta Pikowsky (Registrar), Christine Ries (ECON), Vinod Singhal (BUS), David Sluss (BUS), Francesca Storici (BIOL), May Wang (BME), Yogi Patel (Grad Student), Cam Tyson (Exec. Board Liaison)

Annual Report

- The Graduate Committee met 9 times during the 2013-2014 year. Dr. Jeff Jagoda served as Chair of the Committee. Dr. Benjamin Flowers served as Vice Chair of the Committee. Reta Pikowsky served as Secretary of the Committee. The business of the Committee is related to curriculum proposals and student petitions.
- Student petitions are handled primarily by a Petitions Subcommittee. Drs. Breedveld and Ries were member of the Subcommittee.
- Over the 2013-2014 academic year, the GCC approved several modifications and additions to Georgia Tech's degrees, clarifications on policy, new courses, changes to courses, student petitions, and review of academic policies.

Annual Report

- Details of the following items are in the annual report:
 - Informational and discussion items taken up by the Committee
 - Award of posthumous degrees
 - Responsible Conduct of Research requirements
 - New program prospectus
 - New degree
 - Deactivation/termination of degrees
 - New dual or joint degrees
 - New academic agreement
 - Doctoral minor field of study

Annual Report

- Details of the following items are in the annual report:
 - Online and international delivery of programs
 - Degree/program modifications
 - New certificates
 - New subject code
 - New courses
 - Deactivated courses
 - Course prerequisite modifications
 - Course restriction changes
- Student Petitions and Appeals

Action Items

- **From the June 5, 2014 Minutes**
 - **New course**
 - PUBP 6350 Energy Policy and Markets 3-0-3
 - **Degree modification**, PhD with a major in Mathematics
 - The course requirements for a PhD with a major Mathematics from 51 hours (including 36 hours of 6000 level math courses and the 9 hour minor requirement) to 30 hours of 6000 level or above math courses plus 9 hours for the minor requirement.
 - The written comprehensive exams will be changed so that instead of taking 2 fixed exams students will choose to take 2 of 7 exams.
 - We will also institute a new “breadth requirement” to ensure that students have exposure to several areas of mathematics.

Action Items

- **From the June 5, 2014 Minutes**
 - The doctoral Minor Field of Study – change in Catalog language
 - Current:
 - In addition to an adequate knowledge of the major field of intended research, the student must demonstrate mastery of **another smaller body of knowledge—the minor field—preferably outside the student's school**. The purpose of the minor is to encourage a wider interest on the part of the student and to provide a broader basis for the evaluation of the student's capabilities.
 - Change to:
 - In addition to an adequate knowledge of the major field of intended research, the student must demonstrate mastery of **another complementary body of knowledge—the minor field—outside the student's area of specialization and preferably outside the school**. The purpose of the minor is to encourage a wider interest on the part of the student and to provide a broader basis for the evaluation of the student's capabilities.

Action Items

- **From the June 5, 2014 Minutes**
 - **New Catalog Language for online and international delivery of academic content**

Academic content delivered through distance learning is in accordance with the course descriptions as approved by the Institute Curriculum Committee. All courses require approval by the Institute Curriculum Committee and the Academic Senate regardless of the format in which they are offered. All offerings for academic credit delivered through the Division of Professional Education have been approved in this manner.

Action Items

- **From the June 5, 2014 Minutes**
 - **New Catalog Language for online and international delivery of academic content**

Academic content delivered at our international sites, such as GT-Lorraine and GT-Shenzhen, is in accordance with the course descriptions as approved by the Institute Curriculum Committee. All courses require approval by the Institute Curriculum Committee and the Academic Senate regardless of where or how they are delivered. All study abroad programs are approved on a yearly basis by the Institute Undergraduate Curriculum Committee as recommended by the Study Abroad Subcommittee.

(Note: The Study Abroad Subcommittee is actually a joint subcommittee of the Undergraduate and Graduate Curriculum Committees.)

Action Items

- **From the September 4, 2014 Minutes**
 - This was the start-up meeting for the year and included no action items.
- **From the September 11, 2014 Minutes**
 - **Degree modification** MS in Building Construction and Facility Management
 - Addition of a new track: Program Management Track
 - **Termination of a Joint Degree Program**
 - Master of Science in Civil Engineering with the University of Pretoria
 - Program was not funded, and the program did not activate. There are no students enrolled in the program, no students have graduated from the program, and there are no current applicants.

Action Items

- **From the September 11, 2014 Minutes**
 - **New Course**
 - CS 6474 Social Computing 3-0-3
 - **Degree Modification** Master of Science in Computer Science, Concentration in Social Computing
 - Change the core requirement from six hours to nine hours and the elective requirement from nine hours to six hours
 - Move some of the previous Core pick classes from core to electives and adding two new courses to the Core pick

Action Items

- **From the September 11, 2014 Minutes**

- **Administrative Items (Policy Clarifications/Changes)**

Based on existing written agreements and past practices in reviewing applicants for Georgia Tech - Lorraine (GTL), the Office of Graduate Studies approves qualified applicants for full-standing, degree-seeking admission in the case where a student has completed two years of the *lycées* plus at least two of the three years of the *Grandes Écoles* program. Students at this level are determined to be bachelor's degree equivalent.

The Office of Graduate Studies requests the same admission process and full-standing, degree-seeking admission offered for all approved and qualified applicants with similar backgrounds (having completed two years of the *lycées* plus at least two of the three years of the *Grandes Écoles* program), regardless of campus. That is, both GTL and non-GTL applicants may be admitted under such guidelines.

Action Items

- **From the September 11, 2014 Minutes**
 - **Administrative Items (Policy Clarifications/Changes)**
 - **Graduate Course Option**
 - Students completing both the bachelor's and master's in the same discipline at Georgia Tech may use **up to twelve (12) hours of courses taken as an undergraduate toward the master's degree. Under the Graduate Course Option the student may count up to six (6) of the twelve (12) ~~up to 6~~ credit hours of graduate-level coursework in the major discipline for both degrees.** Recognizing that some master's degree programs do not have a unique undergraduate counterpart program, and that some master's programs are offered by several schools, the term "discipline" in the prior sentence will be broadly interpreted in such cases. To qualify for this option, students must complete the undergraduate degree with a cumulative grade-point average of 3.5 or higher and must complete all of the remaining credits of the master's degree as an accepted graduate student within a two-year period from the award date of the bachelor's degree.

Action Items

- **From the September 11, 2014 Minutes**
 - **Administrative Items (Policy Clarifications/Changes)**
 - BS/MS Degree Programs
 - Many schools at Georgia Tech offer BS/MS degree programs that, like the Graduate Course Option, allow eligible students to use up to 6 credit hours of graduate-level coursework in the major discipline for both degrees. **They may also use toward the MS degree and up to 6 hours of graduate-level coursework taken as an undergraduate student but not used toward the BS degree toward the MS degree.** All of the remaining credit for the MS degree must be taken as a **graduate student.** The BS/MS programs typically include research and mentoring components and have their own GPA requirements.

Action Items

- **From the September 11, 2014 Minutes**
 - **Administrative Items (Policy Clarifications/Changes)**
 - IX. Scheduling
 - E. Undergraduate Students Taking Graduate Courses
 - Seniors with a grade-point average of at least 2.7 may schedule graduate courses. In order to do so, the student must obtain permission from the school or department offering the course.
 - Credit toward the master's degree for up to twelve (12) hours of courses taken as an undergraduate may be received under the following conditions. **All remaining courses for the master's degree must be taken as a graduate student.**
 - The student was in residence at Georgia Tech for at least two semesters before registering for the course(s).
 - The student did not apply credit for the course toward the baccalaureate degree. (See Graduate Course Option for special exceptions in certain schools.)

Action Items

- **From the October 2, 2014 Minutes**
 - **Degree Modification**, Master of Science in Economics
 - Change name from undesignated Master of Science with a major in Economics to designated and update curriculum. New curriculum will not have a thesis option.
 - Proposed Restructured program
 - » The degree requires 30 hours of coursework.
 - » Within those 30 hours, at least 21 hours must be at the 6000 level.
 - » Within those 30 hours, the student must complete 18 hours in courses taught by the School of Economics which must include the four mandatory courses:
 - » ECON 6105 Macroeconomics (3 credit hours)
 - » ECON 6106 Microeconomic Analysis (3 credit hours)
 - » ECON 6140 Probability and Statistics (3 credit hours)
 - » ECON 6160 Econometric Analysis (3 credit hours) **AND**
 - » ECON Electives of 6 credit hours of courses taught in the School of Economics
 - » (Students may count 3 hours of ECON internship credit as a School of Economics elective)

Action Items

- **From the October 2, 2014 Minutes**
 - **Degree Modification**, Master of Science in Economics
 - Proposed Restructured program, continued
 - » Within those 30 hours, the student can choose 12 hours of elective courses in complementary areas such as Mathematics, Statistics, Industrial Engineering, Civil Engineering, International Affairs, various areas in Management, or Public Policy, among other areas, or in Economics. The selection of these electives will be based on the student's chosen areas of concentration. The SOE Director of Graduate Studies along with the Academic Advisor will grant approvals for these courses.
 - » The student must obtain approval of the Director of Graduate Programs, School of Economics, to apply for any courses outside of the 18 hours of courses required to be taught by the School of Economics, as well as approval for internship related credits.

Action Items

- **From the October 2, 2014 Minutes**

- **New Courses:**

- CETL 8723: Academic Writing for International Graduate Students 2-0-2
 - CETL 8796: Presentation Skills for International Graduate Students 2-0-2
 - CETL 8797: Oral Communication for International Graduate Students 2-0-2

- **Degree Modification, Master of Science in Computer Science**

- Master of Science in Computer Science

- concentration in Machine Learning
 - concentration in Computer Graphics

- Add two additional courses to the approved Machine Learning concentration elective list.

- Remove CS 8803 Simulation of Biological Systems (Special Topics) and add CS 7492, these two are the same course. It simply has a new permanent course number.

Action Items

- **From the October 2, 2014 Minutes**
 - **Degree Modification** – Master of Science in Computer Science, concentration in Databases & Software Engineering
 - Add a new course, Advanced Software Engineering, to the Electives pick for this concentration.
 - This will enable those concentrating on the Software Engineering side to take a more advanced, in depth course in their chosen area, and will give students more choices for their nine elective hours.
 - **New Courses**
 - BMED 7004: Teaching & Research Practicum I 1-0-1
 - BMED 7005: Teaching & Research Practicum II 1-0-1

Action Items

- **From the October 2, 2014 Minutes**
 - **Degree Modification**, Doctor of Philosophy with a major in Biomedical Engineering (Joint Degree with Emory)
 - Changes to fulfill the Responsible Conduct of Research (RCR) requirements at both GT and Emory University:
 - Remove PHIL6010 from the degree requirements
 - Insert RCR training covered in PHIL6010 within already established coursework within the major, including the following courses:
 - BMED 7004 (Teaching & Research Practicum I): Eight hours of the course will be dedicated to in-person RCR training in required topics, including authorship and publication, collaborative research, conflict of interest, data acquisition/management/ownership/sharing, peer review, policies regarding the use of human subjects and vertebrate animals in research, and the responsibilities of mentors and mentees.
 - BMED 7011/7012/7013 (Integrative Core Courses): For each course, 1.5 hours will be dedicated to in-person RCR training in the topic of science and engineering in society. Students must take two of these courses for a total of 3 hours of in-person RCR training.

Action Items

- **From the October 2, 2014 Minutes**
 - **Degree Modification**, Master of Science in Biomedical Engineering (Joint Degree with Emory)
 - Changes to fulfill the Responsible Conduct of Research (RCR) requirements at both GT and Emory University:
 - Remove PHIL6010 from the degree requirements
 - Insert RCR training covered in PHIL6010 within already established coursework within the major, including the following courses:
 - BMED 7004 (Teaching & Research Practicum I): Eight hours of the course will be dedicated to in-person RCR training in required topics, including authorship and publication, collaborative research, conflict of interest, data acquisition/management/ownership/sharing, peer review, policies regarding the use of human subjects and vertebrate animals in research, and the responsibilities of mentors and mentees.
 - BMED 7011/7012/7013 (Integrative Core Courses): For each course, 1.5 hours will be dedicated to in-person RCR training in the topic of science and engineering in society. Students must take two of these courses for a total of 3 hours of in-person RCR training.

Action Items

- **From the October 2, 2014 Minutes**

- **New Courses**

- ECE 6274: Statistical Natural Language Processing 3-0-3
 - ECE 6283: Harmonic Analysis for Signal Processing 3-0-3
 - ECE 7103: Advanced Memory Systems 3-0-3

Motion

- Move to approve all action items and the Minutes from:

June 5, 2014

September 4, 2014

September 11, 2014

October 2, 2014