

Georgia Institute of Technology
Graduate Curriculum Committee
Minutes
June 5, 2014

Present: Ashuri (BC), Breedveld (ChBE), Cozzens (VP-GSFA), Flowers (ARCH), Pikowsky (REG), Jayaraman (MSE), Kvam (ISyE), Neitzel (ME), Singhal (CoB), Storici (BIOL)

Visitors: Merkousko (Registrar), Hodges (Registrar), White (CoC), Bambrowski (Graduate Studies), Matisoff (SPP), Mathews (Graduate Studies), Couvillin (Graduate Studies), Sharp (Graduate Studies), Etnyre (MATH)

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 motion was made to approve a request from the School of Public Policy for a new course. The motion was seconded and approved.

NEW COURSE – APPROVED

PUBP 6350: Energy Policy and Markets 3-0-3

Note: The approval was contingent upon clarification of the grading scale that was described in the syllabus. The Committee also asked that references to IGERT also be removed from the NCP form and the syllabus. The course is being approved in general terms, not in sole relation to IGERT.

2. A motion was made to table a request from the College of Computing for a new course and a degree modification. The motion was seconded and approved.

NEW COURSE – TABLED

CS 6474: Social Computing 3-0-3

DEGREE MODIFICATION – TABLED

Master of Science in Computer Science

Master's in Computer Science (concentration in Social Computing)

<http://www.catalog.gatech.edu/colleges/coc/cs/grad/master/mscs.php>

<http://www.cc.gatech.edu/future/masters/mscs/program>

Course option: This option requires the student to complete 36 hours of coursework. Total Course Credit Hours 36 Minimum Credit Hours in CS 24 Minimum Credit Hours(6000/8000 Level) in CS 18 Minimum Credit Hours (6000/8000 Level) 24

Project option: This option requires the student to complete 27 hours of coursework and a 9 hour project. The project requires approval by a faculty advisor and the MS program coordinator in the semester prior to its inception. Total Credit Hours 36 MS Project Hours 9 Total Course Credit Hours 27 Minimum Credit Hours in CS 24* Minimum Credit Hours (6000/8000 Level) in CS 18*

Thesis option: This option requires the student to complete twenty-four hours of coursework and a 12 hour thesis. The thesis process is defined elsewhere in this catalog. Total Credit Hours 36 MS Thesis Hours 12 hour Total Course Credit Hours 24 Minimum Credit Hours in CS 24* Minimum Credit Hours (6000/8000 Level) in CS 18*

*May not include MS project or thesis hours.

Concentration in Social Computing:

<p>Core Courses (9 hours)</p>	<ul style="list-style-type: none"> • CS 6465 Computational Journalism • CS 6470 Design of Online Communities • CS 6474 Social Computing (Proposal 4515) <p>And pick one (1) of:</p> <ul style="list-style-type: none"> • CS 6675 Advanced Internet Computing Systems and Applications • CS 7270 Networked Applications and Services • CS 8803 SOC Special Topics: Social Computing • CS 8803 CSS Computational Social Science • CS 6465 Computational Journalism • CS 7460 Collaborative Computing
<p>Electives (6 hours)</p>	<p>Pick two (2) more classes including additional classes from the above and:</p> <ul style="list-style-type: none"> • CS 6238 Secure Computer Systems • CS 6250 Computer Networks • CS 6456 Principles of User Interface Software • CS 6675 Advanced Internet Computing Systems and Applications • CS 6505 Computability, Algorithms, and Complexity • CS 6750 Human-Computer Interaction • CS 7210 Distributed Computing • CS 7270 Networked Applications and Services • CS 7450 Information Visualization • CS 7460 Collaborative Computing

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| <ul style="list-style-type: none">• CS 7467 Computer-Supported Collaborative Learning• CS 8893 Special Topics in Cognitive Science: Cognition and Culture |
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We are proposing to change the core requirement from six hours to nine hours and the elective requirement from nine hours to six hours. Also, we are moving some of the previous Core pick classes from core to electives and adding two new courses to the Core pick.

This request is made at the request of the Social Computing faculty group after an internal review of the requirements, and has been approved by the MS Coordinators from each School within the College and the Director of Graduate Programs for the College of Computing.

Notes: There were questions about the New Course Proposal Form for CS 6474 involving, primarily, the percentage of lecture to the percentage of discussion. The Committee wanted clarification on this before proceeding. There were questions about the syllabus related to grading and other statements that the Committee felt were unclear or confusing. Since the course is directly related to the degree modification, both had to be tabled.

3. A motion was made to approve a request from the School of Mathematics for a degree modification. The motion was seconded and approved.

DEGREE MODIFICATION – DOCTOR OF PHILOSOPHY WITH A MAJOR IN MATHEMATICS – APPROVED

We propose to change:

- (1) 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.
- (2) The written comprehensive exams will be changed so that instead of taking 2 fixed exams students will choose to take 2 of 7 exams.
- (3) We will also institute a new “breadth requirement” to ensure that students have exposure to several areas of mathematics.

We wish to institute these changes to increase the breadth of mathematical education of our PhD students and move them towards research quicker in hopes of reducing the time to degree. In our current set up it is possible for a PhD student in Mathematics to not qualify to apply for a Masters in Mathematics due to a lack in breadth. Under the new guidelines the course requirements for a PhD with a major in Mathematics would be stronger than for a Master’s degree. In addition with the flexibility of the new comprehensive exams a student will be able to focus on areas of mathematics most relevant to his or her planned area of study. Finally, the new guidelines are more in line with other mathematics graduate programs around the country and should make us more competitive for new graduate students.

The graduate committee in the School of Mathematics began considering these changes in the Fall of 2012 due to individual faculty members and students indicating some concerns with the current system. Over the following year and a half the graduate committee has held meetings with faculty and students and conducted surveys of faculty and students concerning possible changes to the course requirements and written comprehensive exams. At the beginning of the Spring 2014 semester the Graduate Committee put forward the outline of proposed changes at a Faculty Meeting on February 25.

The motion to accept the outline of proposed changes and develop the details of the changes was unanimously supported by a faculty vote during that meeting. The complete detailed changes were voted on by the faculty in the School of Mathematics at a faculty meeting on April 15. One faculty member voted against the proposal the rest supported the proposal (there were in excess of 30 faculty members present for the vote).

The main changes are a reduction of the total hours required for a PhD in Mathematics from 51 to 39, allowing students to choose which 2 written comprehensive exams they will take and the enforcement of a breadth requirement that ensures a student has had exposure to several areas of mathematics.

Currently Approved vs. Proposed Program Curriculum

The doctoral program in Mathematics requires fifty-one hours of coursework, with grades of C or better, and a GPA of 3.0 or above, beyond the undergraduate degree. At least thirty-six hours, chosen to the satisfaction of the student's research advisor must be taken at the 6000 level in mathematics, and a further nine hours must be taken outside the School of Mathematics at the 4000 level or higher in the student's minor field of study. The program must also include six additional hours at the 6000 level. Work on a master's thesis (thesis hours) may not be counted toward any of the fifty-one hours specified above, but coursework for the master's degree may be counted. At least six hours of the minor should be completed within three years of the student's admission to the doctoral program.

Prior to admission to candidacy for the doctoral degree, each student must pass the comprehensive examination, which consists of a written examination in real analysis and algebra and an oral examination in the student's proposed area of specialization. Doctoral students must also satisfy the Institute's requirements with respect to the dissertation and final oral examination.

~~The doctoral program in Mathematics requires fifty-one hours of coursework, with grades of C or better, and a GPA of 3.0 or above, beyond the undergraduate degree. At least thirty-six hours, chosen to the satisfaction of the student's research advisor must be taken at the 6000 level in mathematics, and a further nine hours must be taken outside the School of Mathematics at the 4000 level or higher in the student's minor field of study. The program must also include six additional hours at the 6000 level.~~ **30 hours of graduate-level coursework (6000-level or above) in mathematics and an additional 9 hours of coursework towards a minor.** Work on a master's thesis (thesis hours) may not be counted toward any of the fifty-one hours specified **this requirement**, but coursework for the master's degree may be counted. At least six hours of the minor should be

completed within three years of the student's admission to the doctoral program. The coursework is subject to breadth requirements guaranteeing exposure to five areas of mathematics (these requirements are discussed more fully on the School of Mathematics website).

Prior to admission to candidacy for the doctoral degree, each student must pass the comprehensive examination, which consists of a ~~written examination in real analysis and algebra~~ written exams and an oral examination in the student's proposed area of specialization. Doctoral students must also satisfy the Institute's requirements with respect to the dissertation and final oral examination.

Administrative Matters

1. The doctoral minor was discussed due to concerns about the language in the current policy and whether some units were inconsistent in following the spirit of the policy which is to encourage the doctoral minor to be *outside* the primary area of study. Several aspects of the requirement were discussed including such finer-grain points as whether the usage of cross-listed courses should or should not be a concern. After some discussion, the Committee determined that a subtle change in *Catalog* policy language would help the Office of Graduate Studies make decisions about whether the spirit of the doctoral minor was being met.

The Committee also discussed how it could be made easier for Graduate Studies to determine if the minor is actually *outside* the major field. Revising the minor form to include some additional information seems as though it would be a good way to do this. This will be done as soon as possible.

A motion was made to approve the following change in *Catalog* language. The motion was seconded and approved.

The Minor Field of Study – Current Language in the *Catalog*

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.

The minor will normally consist of at least nine semester hours of work in related courses, selected by the student in consultation with a guidance committee and approved by Graduate Studies (on behalf of the Vice Provost for Graduate Education and Faculty Affairs). These courses should be at the 6000 level or above, but the use of certain 4000 level courses may also be approved. The student must receive a letter grade within the minor comprising an overall GPA of a 3.0 (B) or higher. (Courses that are taken as pass/fail are not eligible to count toward the doctoral minor). Courses taken at other institutions may be included in the minor. Once the student has satisfactorily completed

the minor, the school chair will send a confirmation, accompanied by course grades, to Graduate Studies for final approval and recording.

Although the student need not complete the minor as a prerequisite to become a candidate, the minor must be completed and approved in order to be cleared for graduation.

The Minor Field of Study – New Language for the *Catalog*

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.

The minor will normally consist of at least nine semester hours of work in related courses, selected by the student in consultation with a guidance committee and approved by Graduate Studies (on behalf of the Vice Provost for Graduate Education and Faculty Affairs). These courses should be at the 6000 level or above, but the use of certain 4000 level courses may also be approved. The student must receive a letter grade within the minor comprising an overall GPA of a 3.0 (B) or higher. (Courses that are taken as pass/fail are not eligible to count toward the doctoral minor). Courses taken at other institutions may be included in the minor. Once the student has satisfactorily completed the minor, the school chair will send a confirmation, accompanied by course grades, to Graduate Studies for final approval and recording.

Although the student need not complete the minor as a prerequisite to become a candidate, the minor must be completed and approved in order to be cleared for graduation.

2. The Registrar’s Office brought to the Committee’s attention a need to clarify the impact of online and international delivery of academic content. Although there is a common understanding of consistency across delivery options, there is, at present no statement to that effect. It is proposed that a clarifying statement be made to the “academics” section of the *Catalog*.

A motion was made to add the following language to the *Catalog*. The motion was seconded and approved.

New Language for the *Catalog*

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.

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.

Student Petitions

1. A motion was made to approve Petitions Subcommittee and administrative action on petitions in the following areas. The motion was seconded and approved.

The following petitions were reviewed by the Graduate Curriculum Committee Petition Subcommittee. (All approved except where noted) Petitions reviewed from 03/07/14 to 06/04/14

- 8- Selective withdrawal (**4 Denied**)
- 4- Term Withdrawal
- 1- Late Registration for current term
- 1- Use undergraduate course hours toward Master's degree

The following petitions were reviewed administratively by the Registrar's office, under the authority delegated by the Committee. (All approved except where noted) Petitions reviewed from 03/07/14 to 06/04/14

- 13- Late registration for current term
- 1- Three-hour rule (**1 Denied**)
- 4- Seven-year rule waiver
- 1- Adjust registration hours for the current term
- 2- 1-hour rule waiver
- 3- Use excess pass-fail hours toward degree
- 3- Change grade mode
- 1- Use credits taken as an undergraduate towards graduate degree
- 2- Cancel registration for current term
- 2- Count PHD Thesis hours towards MS Degree
- 2- Course substitution
- 7- Full Graduate Standing
- 1- Readmission after 1st drop
- 2- Use courses taken on Special Status towards degree
- 1- Permission to take CHEM1212
- 1- Permission to use 20.66 hours of transfer credit to count at 21 hours of 6000-9000 non-thesis hours

Adjourned,

Reta Pikowsky
Registrar