

Georgia Institute of Technology
Graduate Curriculum Committee
Minutes
April 15, 2010

Present: Babensee (BME), Pikowsky (Registrar), Butera (ECE), Corso (PSY), Ferri (ECE), Smith (AE), Clarke (CoM), Peponis (ARCH), Goldsman (ISYE), Leo (CoC), Murray (LCC), Silva (ECON)

Visitors: Laros (Registrar), Simon (Registrar), Paraska (Provost), Thomas-Mobley (BC), Lohmann (Provost), Stiffl (CRP), Fox (PUBP), Senft (Registrar), Hunter (CEE), Bartholdi (ISYE), Vande Vate (ISYE)

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 College of Architecture for new courses. The motion was seconded and approved.

NEW COURSES

ARCH 6506 Construction Materials, Systems and Fabrications (2-3-3)

ARCH 6504 Digital Design and Fabrication Workshop (2-12-6)

Note: ARCH 6506 and 6504 will not be offered as Audit mode

ARCH 6502 Design Scripting (2-3-3)

ARCH 6503 BIM applications (3-0-3)

ARCH 6505 Geometric Constructs in Digital Space (2-3-3)

ARCH 6507 Parametric Design (2-3-3)

ARCH 6501 Analog Digital Design Computation (3-0-3)

ARCH 6508 Shape Grammars (3-0-3)

ARCH 6509 Computation, Creativity and Design Cognition (3-0-3)

ID 6509 Computation, Creativity and Design Cognition (3-0-3)

Note: ARCH 6509 and ID 6509 are to be Cross-Listed

BC 7200 Advanced Reading in BC (0—3 to 36—1 to 12)

BC 8000 PHD Seminar (1-0-1)

BC 8999 Doctoral Thesis Prep (1 to 21—0—1 to 21)

Note: The above BC courses will be offered as Pass/Fail only

A course proposal for BC 9000 Doctoral Thesis will be submitted at a later meeting.

- 2) A motion was made to approve a request from the School of City and Regional Planning and the School of Architecture for degree modification. The motion was seconded and approved.

DEGREE MODIFICATION

Dual - Master of City and Regional Planning / Master of Architecture

A dual degree program leading to the Master of City and Regional Planning and the Master of

Architecture has been in place at Georgia Tech since 1969. The Institute Graduate Curriculum Committee has asked that we seek re-approval of this program now.

Students earning both the MCRP and M.Arch. degrees are expected to meet all requirements of each degree, including all core, specialization and studio requirements, with four modifications:

- 1) up to eight (8) credit hours of Architecture courses may be used as electives toward the MCRP degree;
- 2) up to eight (8) credit hours of planning courses may be used as electives toward the M.Arch. degree;
- 3) students must complete at least twenty-five (25) credit hours of approved concentration-area courses offered in the College of Architecture.
- 4) students enrolled in the dual degree program must complete one of the following two capstone alternative: a) a thesis supervised by a committee comprised by faculty of both programs involving at least five (5) credit hours of CP7000: Master's Thesis, and at least five (5) credit hours of ARCH7000: Master's Thesis; or b) the combination of six (6) credit hours of an approved ARCH7090: Architecture Masters Project Studio, and at least four (4) hours of CP8990: Applied Research Paper.

All students must complete a minimum combined requirement of at least ninety-nine (99) credit hours. Course credit required may be substantially greater if the Architecture faculty determines that the student does not have full advanced standing upon admission. In some cases, required Architecture credit hours may increase by as many as forty-eight (48), with the result that the dual degree program requirements may total as many as one hundred forty-seven (147) credit hours.

Students wishing to enroll in the dual degree program must apply separately and be admitted independently to each program. For prospective students not yet enrolled in either program, an application should be submitted to each program separately. Students currently pursuing either the M.Arch. or the MCRP and seeking admission to the dual degree program should apply directly to the other program, providing that program with a copy of the student's full original application to the first program together with a copy of the student's Georgia Tech transcript. The program graduate advisors will forward applications on file in response to a request from a student. These materials will be reviewed during the regular admissions schedule in place in the relevant program.

It is strongly recommended that students apply to the dual degree program before beginning studies in either program, or if not, than no later than the end of their first year of study in the first program.

Both degrees must be awarded simultaneously. That is, students enrolled in the dual degree program may not receive either degree until they have met the requirements of both degrees.

- 3) A motion was made to approve a request from the School of City and Regional Planning and the School of Civil Engineering for degree modification. The motion was seconded and approved.

DEGREE MODIFICATION

Dual - Master of City and Regional Planning / Master of Science with a Major in Civil Engineering or Master of Science in Civil Engineering (Transportation Systems Engineering)

This dual degree program leading to both the Master of City and Regional Planning (MCRP) and the M.S. with a major in Civil Engineering or the M.S. in Civil Engineering (Transportation Systems Engineering) [MS/MSCE] has been in place at Georgia Tech since 1996. However, the dual degree programs have not been formally approved by the Institute Curriculum Committee and the USG

Board of Regents.

Students earning both the MCRP degree and a M.S. degree with a major in Civil Engineering or M.S. in Civil Engineering (Transportation Systems Engineering) are expected to meet all requirements of each degree, including all core, specialization and studio requirements, with five conditions:

- 1) Students may count up to twelve (12) credit hours of Civil and Environmental Engineering courses as electives toward the MCRP degree;
- 2) Students may count up to six (6) credit hours of planning courses as electives toward the MS/MSCE degree;
- 3) Students must complete the standard twelve (12) credit hour transportation specialization under the MCRP degree;
- 4) Students must complete the standard transportation systems engineering specialization requirements under the MS/MSCE.
- 5) Students enrolled in the dual degree program must complete research in Civil and Environmental Engineering and a thesis in City Planning that is supervised by a committee comprised by faculty of both programs. This involves taking at least six (6) credit hours of CP7000 (Master's Thesis), and at least six (6) credit hours of CEE8900 (Special Problems).

All students must complete a minimum combined requirement of at least sixty-seven (67) credit hours. Both degrees are awarded simultaneously.

Students wishing to enroll in the dual degree program must apply separately and be admitted independently to each program. For prospective students not yet enrolled in either program, an application should be submitted to each program separately. Students currently pursuing either the MS/MSCE or the MCRP and seeking admission to the dual degree program should apply directly to the other program, providing that program with a copy of the student's full original application to the first program together with a copy of the student's Georgia Tech transcript. The program graduate advisors will forward applications on file in response to a request from a student. These materials will be reviewed during the regular admissions schedule in place in the relevant program.

It is strongly recommended that students apply to the dual degree program before beginning studies in either program, or if not, than no later than the end of their first semester of study in the first program.

- 4) A motion was made to approve a request form the School of Psychology for new courses. The motion was seconded and approved.

NEW COURSES

PSYC 6031 Engineering Psychology: Analysis Techniques (2-0-2)
PSYC 6032 Engineering Psychology: Environmental Stressors (1-0-1)
PSYC 6033 Engineering Psychology: Cognitive Ergonomics (1-0-1)
PSYC 6034 Engineering Psychology: Displays (1-0-1)
PSYC 6035 Engineering Psychology: Controls & Workspace (1-0-1)
PSYC 6041 Current Topics in Cognitive Aging (1-0-1)
PSYC 6042 Neuroimaging (3-0-3)
PSYC 7105 First Year Research Project I (0-9-3)

PSYC 7106 First Year Research Project II (0-9-3)

PSYC 6040: Current Topics in Cognition and Brain (1-0-1)

- 5) A motion was made to approve a request from the School of Industrial and Systems Engineering for new courses and a new degree. The motion was seconded and approved.

NEW COURSES

ISYE 6331: Statistics for Supply Chain Engineering (3-0-3)

ISYE 6332: Finance for Supply Chain Engineering (3-0-3)

ISYE 6333: Operations Research for Supply Chain Engineering 1 (3-0-3)

ISYE 6334: Operations Research for Supply Chain Engineering 2 (3-0-3)

ISYE 6335: Supply Chain Engineering 1 (3-0-3)

ISYE 6336: Supply Chain Engineering 2 (3-0-3)

ISYE 6337: Supply Chain Engineering 3 (3-0-3)

ISYE 6338: Supply Chain Strategy (3-0-3)

ISYE 6339: Supply Chain Information Systems (3-0-3)

ISYE 6340: Supply Chain Engineering Seminar (3-0-3)

ISYE 6341: Capstone Project for Supply Chain Engineering 1 (3-0-3)

ISYE 6342: Capstone Project for Supply Chain Engineering 2 (3-0-3)

NEW DEGREE

Master of Science in Supply Chain Engineering

The curriculum includes ten required courses and two prerequisite courses (ISYE 6331 and 6332).

All courses are new and unique to the program and are listed above.

- 6) A motion was made to approve a request from the School of Electrical and Computer Engineering for a new degree. The motion was seconded and approved.

NEW DEGREE

Joint Doctor of Philosophy with a major in Electrical and Computer Engineering Politecnico di Torino (Italy)

The proposed joint Ph.D. program does not require or suggest any changes to the existing Ph.D. degree programs of either Georgia Tech or PdT. Rather, the proposed program mandates that students enrolled in this joint program satisfy the curriculum requirements of each of the existing Ph.D. programs at Georgia Tech and PdT. The existing Ph.D. degree study programs at each institution are flexible enough to allow for a large amount of credit transfer, thereby enabling a student to simultaneously satisfy the Ph.D. coursework requirements at each institution without a significant increase in the total course load compared to either study program independently. Since the joint Ph.D. program does not involve a separate and distinct curriculum program but rather allows the existing separate Ph.D. curriculum requirements to “pass through” unaltered, it is possible that these independent and externally conceived requirements may change between the time a student enters the joint program and the time the student completes the program. In such cases, the existing Ph.D. curriculum requirements in place at the time of the student’s enrollment into the joint program shall remain a valid alternative to the changed requirements so long as the student remains enrolled in the joint program. At the time of application, it is the responsibility of the student to have an approved joint study program that meets the requirements of both programs within their respective constraints.

While there are no changes to the curriculum requirements of either university, there are some additional application and program requirements which are detailed below:

Application

Before applying to the joint Ph.D. program, students must first apply and be admitted to the existing

Ph.D. program at their “home institution”, i.e., either to Georgia Tech in Atlanta, GA, U.S.A., or to PdT in Turin, Italy. This would mean that prior to application to the joint Ph.D. program, the student will have satisfied all admissions requirements for the home university's Ph.D. program. A student must also have passed any examination (other than course exams) required by their home university's existing Ph.D. program prior to the thesis proposal before applying to the joint Ph.D. program (such as a comprehensive prelim-exam).

M.S. Degree Requirement

Eligible students for this joint Ph.D. program must also have completed a Master's degree in Electrical and Computer Engineering with the minimum grade point average of 3.5 out of 4.0 from a recognized (or accredited) school of engineering. Applicants with M.S. degrees in other engineering disciplines, computer sciences, or physics are also eligible to apply. PdT Ph.D. students are required to have already obtained a M.S. degree in order to apply to the Ph.D. program at their institution. Georgia Tech Ph.D. students who have not yet completed their Master's degree will have to wait until they are awarded that degree before they are eligible to transfer into the joint Ph.D. program.

Length of Program and Residency Requirement

The joint Ph.D. program must be completed within four years after the M.S. is obtained. Students will take the majority of their classes and conduct research in their advisors' laboratories at their home campus. In addition, students will spend a minimum of one year doing research at their co-advisors' laboratories and taking classes on the host campus. Because of the flexibility in the programs at both institutions, students can complete this program within four years.

Applicants with M.S. degrees outside of Georgia Tech ECE should carefully consider the joint curriculum requirements in light of their prior coursework to assess whether the amount of allowed credit from their prior M.S. coursework will be sufficient to complete the remaining coursework requirements within the to this matter as they are likely to receive significantly less credit toward their Ph.D. coursework requirements compared to students with M.S. degrees in ECE.

Co-Advisors

At the time of application (see *Admissions Criteria* section below), the student will have to identify and obtain confirmation from co-advisors at both the home and host institutions. These two advisors—who have agreed to work together with the Ph.D. student—must belong to the respective faculties of each institution and be qualified by their institution to advise Ph.D. students in their institution's existing Ph.D. program. Working together, the advisors will assist the student in successfully determining an appropriate program of study and research that is in a compliance with the existing Ph.D. programs of both institutions. In addition, these advisors will assist the student in conducting their proposed area of research associated with the joint Ph.D. program.

Dual Committee for Thesis Proposal and Defense

A dual committee – one committee from each university - will be selected to approve a student's dissertation proposal and dissertation defense. Membership of each institution's committee must meet the independent requirements of that institution's standard Ph.D. doctoral committee. As with the curriculum, should the requirements change at any time, the requirements in place at the time of a student's enrollment into the joint program will remain valid so long as the student remains

enrolled in the Ph.D. program.

The doctorate dissertation proposal as well as the final Ph.D. thesis will be presented in both written and oral form. The oral presentation of both the proposal and the final defense will take place at one of the two partner institutions by remote conference connection and will be approved by the dual committee. Both the oral presentation and defense will be delivered in English. The student's advisors and the committee members from the home and host institutions will participate, either on site or through remote connection.

Publication Requirement

Ph.D. students enrolled in the joint program will also be required to publish a minimum of two papers in journals (or conference proceedings) which have a noted impact factor (e.g., ISI or ISI-like index) in order to be conferred their doctorate degree. The joint committee will determine if the publications satisfy this requirement.

Credit Transfer

Both institutions currently allow an enrolled student to transfer a generous amount of academic credit in order to meet the requirements of their existing Ph.D. programs. In the joint Ph.D. program, credits that are transferred to satisfy requirements at the host institution will continue to satisfy credit requirements at the home institution. The credit transfer will be in accordance with each institution's published policies on credit transfer.

- 7) A motion was made to approve a request from the College of Computing that the Computer Science PhD and MS (DR-CS and MSCS) be designated as 9-month programs rather than 12-month programs. The motion was seconded and approved.

The College of Computing does not offer graduate courses in the summer, and the 9 month classification more accurately reflects this.

- 8) 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

PUBP 6403: Scientific Careers and Workspaces (3-0-3)

Student Petitions

- 1) A motion was made to approve the recommendations of the Petitions Subcommittee on requests in the areas listed below. The motion was seconded and approved.

3 Request full Graduate Standing

2 Selective withdrawal (**1 Denied**)

3 Term withdrawal (**1 Denied**)

4 Change grade mode (**1 Denied**)

1 Change course hours from one to three

- 2) A motion was made to approve a petition to use courses taken in Spring 2009 in non-degree status toward the MS degree. The motion was seconded and the petition was approved.
- 3) A motion was made to approve a petition from a student to remove the W grade from a Fall 2009 course. The motion was seconded and the petition was approved.

- 4) A motion was made to deny a petition from a student for admission to full graduate standing without a Bachelor's degree. The motion was seconded and the petition was denied.
- 5) A motion was made to approve a petition from a student for full graduate standing and graduation in May 2010. The motion was seconded and the petition was approved.
- 6) A motion was made to approve a petition from a student requesting graduation with four pass/fail hours instead of the three that are normally allowed. The motion was seconded and the petition was approved.

Program Review Assignments

The process of writing and approving program reviews has fallen behind. The Chair asked for volunteers to write program review. Following are the results.

2007-2208

BIOL – Dr. Parker (former chair has offered to assist)

CHEM & BIOCHEM – Dr. Butera

Note: PUBP from this year was completed and reported.

2008-2009

ECE – Dr. Goldsman

EAS – Dr. Ferri

MSE – Dr. Babensee

PSE – Dr. Murray

2009-2010

LCC – Dr. Smith

The drafts will be reviewed and approved by the full committee. The vote to approve will occur at the June 2010 meeting.

Adjourned,

Reta Pikowsky,
Registrar