




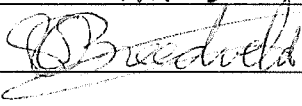
2016-2017 GCC Members:

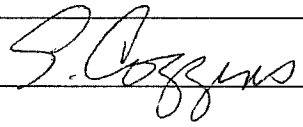
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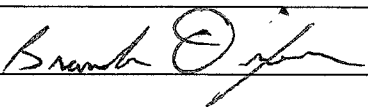
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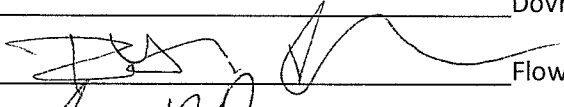
Bafna, Sonit (CoD-Arch)
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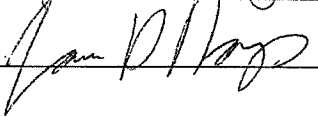
Balch, Tucker (CoC-IC)
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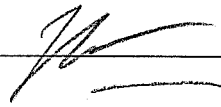
Bamburowski, David (Graduate Studies)
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Breedveld, Laurens (CHBE - GCC Chair)
- Ceccagnoli, Marco (CoB)
- Chow, Edmond (CoC-CSE)
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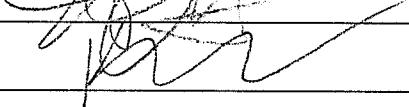
Cozzens, Susan (Vice Provost)
- Dickson, Robert (CHEM)
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Dixon, Brandon (ME)
- Dovrolis, Konstantions (CoC-CS)
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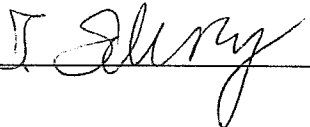
Flowers, Benjamin (CoD-ARCH)
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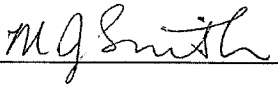
Hays, James (CoC-IC)
- Henderson, Clifford (ChBE)
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Jagoda, Jechiel (AE)
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Jayaraman, Sundaresan (MSE)
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Johnson, Henderson (GCC – Student Representative)
- Macrakis, Kristie (HSOC)
- Mihail, Melina (Faculty Exec Board Liaison)
- 

Pikowsky, Reta (Registrar)
- Ries, Christine (ECON)
- 

Schmidt-Krey, Ingeborg (BIOL)
- Sluss, David (CoB – GCC-Vice Chair)
- 

Smith, Marilyn (AE)
- Vigoda, Eric (CoC-CS)
- Wang, Dongmei (BMED)

Institute Graduate Curriculum Committee
Minutes
Thursday, May 25, 2017

Present: Breedveld (ChBE – IGCC Chair), Pikowsky (Registrar), Bafna (CoD-ARCH), Balch (CoC-IC), Bamburowski (Grad Studies), Cozzens (Vice Provost), Dixon (ME), Flowers (CoD-ARCH), Hays (CoC-IC), Jagoda (AE), Johnson (IGCC Student Rep), Macrakis (HSOC), Schmidt-Krey (BIOS-BIOL), Smith (AE)

Visitors: Hodges (Registrar), Sokol (ISyE), Levine (PUBP), Winders (HSOC), Zhou (ECE), Berthelot (VPPII), Le Doux (BMED), Black (Grad Studies), Mulholland (CEE), Simon (CEE), Woolard (OAE), Budd (ID), White (CoC), Rinehart (CoD)

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. It may also be that approval of the Southern Association of Colleges and Schools is also required.

There are 24 voting members, 13 needed to reach a quorum. In the absence of a quorum, the full committee will vote via email on the Minutes as recommendations of those that were present and then they will vote to approve the Minutes.

All votes are unanimous except as noted.

Academic Matters:

1. A motion was made to *approve* a request from the School of Aerospace Engineering for a modification to a course number. The motion was seconded and approved.

APPROVED – Course Number Modification

AE 8002: AE Graduate Seminar (1-0-1)

AE 8002 was originally submitted and approved as AE 8001: AE Graduate Seminar at the April 06, 2017 IGCC meeting (see Proposal 5252 on ICC site). The Registrar's Office discovered AE 8001 is already an active course as Design Seminar in Banner. The request is to assign a new course number of 8002 to the AE Graduate Seminar course.

2. A motion was made to *approve* a request from the Department of Biomedical Engineering for a new course. The motion was seconded and approved.

The vote to approve this course was not unanimous. There were 9 votes to approve, 4 votes to deny, and no abstentions.

APPROVED – New Course

BMED 6739: Medical Robotics (3-0-3)

There was stated concern from the Committee since the course had not been taught in its current form at Georgia Tech except for one instance during the Spring 2017 term. The Committee ultimately concurred that since the instructor had taught the course in its proposed version at another institution and the course had been successful that it would consider those offerings as valid instances of the course being offered prior to proposing a new number.

3. A motion was made to *approve* a request from the College of Computing for new courses. The motion was seconded and approved.

APPROVED – New Courses

CS 6200: Graduate Intro to OS (3-0-3)

CS 6291: Embedded Software Opt (3-0-3)

CS 6301: Adv Software Engineering (3-0-3)

CS 6471: Comp Social Science (3-0-3)

CS 6220: Big Data Systems and Analytics (3-0-3)

A motion was made to *approve* a request from the College of Computing for a degree modification. The motion was seconded and approved.

APPROVED – Degree Modification

Master of Science in Computer Science

Concentration in Computing Systems

Core Courses (9 hours)

CS 6505 Computability, Algorithms, and Complexity

And pick two (2) of:

CS 6210 Advanced Operating Systems

CS 6241 Compiler Design

CS 6250 Computer Networks

CS 6290 High-Performance Computer Architecture

CS 6300 Software Development Process OR CS 6301 Advanced Topics in Software Engineering

CS 6400 Database Systems Concepts and Design

Electives (9 hours)

Pick three (3) courses from:

CS 6035 Introduction to Information Security

CS 6200 Graduate Introduction to Operating Systems

CS 6220 Big Data Systems and Analytics

CS 6235 Real Time Systems

CS 6238 Secure Computer Systems

CS 6260 Applied Cryptography

CS 6262 Network Security

CS 6291 Embedded Software Optimizations

CS 6310 Software Architecture and Design

CS 6340 Software Analysis and Testing

CS 6365 Introduction to Enterprise Computing

CS 6422 Database System Implementation

CS 6550 Design and Analysis of Algorithms

CS 6675 Advanced Internet Computing Systems and Applications

CS 7210 Distributed Computing

CS 7260 Internetworking Architectures and Protocols

CS 7270 Networked Applications and Services

CS 7280 Network Science

CS 7290 Advanced Topics in Microarchitecture

CS 7292 Reliability and Security in Computer Architecture

CS 7560 Theory of Cryptography

CS 8803 FPL Special Topics: Foundations of Programming Languages

CSE 6220 High Performance Computing

Note: the NCP listed it as having been taught Fall 2015 and Fall 2015. It should Read “Fall 2015 and Fall 2016.”

A motion was made to *approve* a request from the College of Computing for a course modification. The motion was seconded and approved.

APPROVED – Course Modification

CSE 8999 (Doctoral Thesis Preparation)

CSE 8999 was originally proposed in 2007 and listed with all grade modes available. This was made in error and the unit requested to update the catalog (BANNER) to allow only Pass/Fail as other thesis preparation courses are only allowed as Pass/Fail.

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

APPROVED – New Course

PUBP 6726: Privacy, Technology, Policy and Law (3-0-3)

Note: It was requested that the syllabus be updated to reflect that the ADAPTS office is now called the “Office of Disability Services” and that all instructors be listed.

- A motion was made to *approve* a request from the School of History and Sociology for new courses. The motion was seconded and approved.

APPROVED – New Courses

HTS 6801: Research Paper (3-0-3)

HTS 7999: Comprehensive Exam Preparation (3-0-3)

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

APPROVED – Degree Modification

Master of Science in History and Sociology of Technology and Science

Overview

The proposed changes will incorporate two new courses (HTS 6801 "Research Paper" and HTS 7999 "Comprehensive Exam Preparation") into the text of the notes for these programs. The changes will also note that only 3 credit hours of required electives may come from outside of HSOC (i.e., non-HTS courses).

Curriculum

History Track – Curriculum
Course List

Code	Title	Credit Hours
Required Courses		
HTS 6001	Proseminar in Social Theory	3
HTS 6002	Proseminar in the History of Technology	3
Select one of the following:		3
HTS 6101	Social and Political History of the United States	
HTS 6102	Social and Political History of Europe	
HTS 6103	Social and Political History of the Nonwestern World	
HTS 6743	Science, Technology & Society: Core Seminar	3

History Track – Curriculum
Course List

Code	Title	Credit Hours
HTS 7001	Foundations of Socio-historical Analysis	3
Electives		
Select five of the following:		15
HTS 6101	Social and Political History of the United States	
HTS 6102	Social and Political History of Europe	
HTS 6103	Social and Political History of the Nonwestern World	
HTS 6106	Business Organizations and Political Economy	
HTS 6110	Gender, Science, and Technology	
HTS 6111	Technology and Modern Culture	
HTS 6112	Studies in Science and Engineering	
HTS 6113	Development, Technology and Science	
HTS 6114	Topics in the History of Science	
HTS 6115	Sociology of Science and Technology	
HTS 6116	The Environment in World History	
HTS 6117	Urbanization	
HTS 6118	Sci Tech and the Economy	
HTS 6119	Race and Ethnicity	
HTS 6120	Inequality, Science and Technology	
HTS 6121	Science, Technology and Security	
HTS 6122	History of Medicine	
HTS 6123	Social and Cultural Studies of Biomedicine	
HTS 6124	Science and Technology Beyond Borders	
Total Credit Hours		30

Notes

- Students who have taken either [HTS 6101](#), [HTS 6102](#), or [HTS 6103](#) to satisfy their mandatory course requirements may take one or both of the other courses, if they are offered, as an elective.
- As this is a multidisciplinary degree, students in the history track can take electives from the sociology track, with the agreement of their advisor.
- ~~• Students who wish to proceed to the PhD must take at least one, and no more than two Special Topics courses (HTS 8XXX). This is a writing seminar that produces a research paper.~~
- Electives may include no more than 6 credit hours of HTS 890X ‘Special Problems’ or HTS 6801 ‘Research Paper’ combined. Students who wish to proceed to the PhD must take at least 3 hours of HTS 6801.

- Electives must include at least 12 credit hours within HSOC

Sociology Track - Curriculum

Course List

Code	Title	Credit Hours
Required Courses		
HTS 6001	Proseminar in Social Theory	3
HTS 6002	Proseminar in the History of Technology	3
HTS 6743	Science, Technology & Society: Core Seminar	3
HTS 7001	Foundations of Socio-historical Analysis	3
HTS 6101	Social and Political History of the United States	3
	Advanced Sociological Methods ¹	3
Electives		
	Select five of the following:	15
HTS 6102	Social and Political History of Europe	
HTS 6103	Social and Political History of the Nonwestern World	
HTS 6106	Business Organizations and Political Economy	
HTS 6110	Gender, Science, and Technology	
HTS 6111	Technology and Modern Culture	
HTS 6112	Studies in Science and Engineering	
HTS 6113	Development, Technology and Science	
HTS 6114	Topics in the History of Science	
HTS 6115	Sociology of Science and Technology	
HTS 6116	The Environment in World History	
HTS 6117	Urbanization	
HTS 6118	Sci Tech and the Economy	
HTS 6119	Race and Ethnicity	
HTS 6120	Inequality, Science and Technology	
HTS 6121	Science, Technology and Security	
HTS 6122	History of Medicine	
HTS 6123	Social and Cultural Studies of Biomedicine	
HTS 6124	Science and Technology Beyond Borders	
Total Credit Hours		33

¹ This course is chosen from a wide variety of courses available in other programs on campus and at Georgia State University, in consultation with their advisor.

Notes

- Students may be required to take a second course in Advanced Sociological Methods if required to do so by their advisor.

- As this is a multidisciplinary degree students in the sociology track can take electives from the history track, with the agreement of their advisor.
- ~~Students who wish to proceed to the PhD must take at least one, and no more than two Special Topics courses (HTS 8XXX). This is a writing seminar that produces a research paper.~~
- Electives may include no more than 6 credit hours of HTS 890X ‘Special Problems’ or HTS 6801 ‘Research Paper’ combined. Students who wish to proceed to the PhD must take at least 3 hours of HTS 6801.
- Electives must include at least 12 credit hours within HSOC

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

APPROVED – Degree Modification

Doctor of Philosophy with a major in History and Sociology of Technology and Science

Required Courses	15
Electives	9
Research Paper (Special Problems HTS 6801) ¹	6
Comprehensive Exam (normally taken in the third academic year) ²	
Dissertation	
Total Credit Hours	30

¹ Completion of a satisfactory research paper is essential for those students wishing to proceed to doctoral candidacy.

² The examinations cover material from three fields of study, which will be determined by a student's selection of history or sociology as the area of concentration.

In addition to satisfactory performance in the comprehensive examinations, students pursuing the degree in history must also pass a foreign language examination (normally in French, German, or Spanish) before being admitted to candidacy for the PhD. For students in sociology, an advanced sociological methods course replaces the language requirement. Having met these requirements, the candidate will submit a dissertation proposal, which must meet the approval of his or her dissertation committee. The candidate will then proceed to the final requirement for the degree: the completion of the PhD dissertation and its successful defense by oral examination.

6. A motion was made to *table* a request from the College of Business for a new course. The motion was seconded and approved.

TABLED – New Course

MGT 6754: Business Fundamentals for Analytics (3-0-3)

Note: The Committee voted to table this request for the new course based on the course being previously cross-listed (as Special Topics) with MGT 6753. There was concern over potentially having two courses in the Catalog with different titles and course numbers, but remaining identical in content as well as the proposed version had never been taught.

The Committee advised the unit to teach the course as a Special Topics course in Fall 2017 as the proposed version and return to the Committee with the request for a permanent number at the December 2017 or at a Spring 2018 IGCC meeting.

A motion was made to *table* a request from the College of Business for a new course. The motion was seconded and approved.

TABLED – Degree Modification

Master of Science in Analytics

This request is a degree modification to incorporate MGT 6754 (once approved) into the curriculum for MS in Analytics. Since the course was tabled, the proposal was as well.

7. A motion was made to *approve* a request from the School of Civil and Environmental Engineering to rename a specialization. The motion was seconded and approved.

APPROVED – Specialization name update

Master of Science in Civil Engineering

The School of Civil and Environmental Engineering's (CEE) graduate programs are organized by six affinity groups, based on faculty research interests, subdisciplines of civil engineering, and professional standards. Graduate students are typically admitted by one affinity group, and each group has recommended curricular pathways to graduation.

Currently, the six specializations are listed in the catalog as such:

- Construction and Infrastructure Systems Engineering
- Environmental Engineering
- ~~Environmental Fluid Mechanics and Water Resources~~
- **Water Resources Engineering**
- Geosystems Engineering
- Structural Engineering, Mechanics and Materials
- Transportation Systems Engineering

CEE wishes to update the Environmental Fluid Mechanics and Water Resources specialization to Water Resources Engineering.

Note: The Committee confirmed that this change would not be reflected in the 2017-18 catalog. The change would be reflected in the 2018-19 catalog which will come out in May 2018. The School may, however, list the new specialization on its website with a note that it will be official with the 2018-19 catalog. The Office of Graduate Admissions also noted that it could list the new specialization on the application so that student applying for Fall 2018 would be aware of it.

Discussion Item

1. The PhD qualifying examination has been the topic of discussion on campus and a survey was conducted to gather input from doctoral students.

James Black, Office of Graduate Studies, addressed the Committee with a PowerPoint presentation outlining the results of a survey conducted by the Office of Graduate Studies about how PhD exams impact stress levels of graduate students to evaluate current and proposed practices for doctoral programs and the comprehensive exams at Georgia Tech.

The discussion described some of the possible action items which may be brought to the IGCC from Graduate Studies which included updating graduate policies surrounding the comprehensive exams to offer more effective support to graduate students who are preparing to take the qualifying exams and other items such as defining comprehensive exams in the catalog.

The Committee offered feedback about several of the proposed changes noted in the presentation. It was also requested that the changes should be brought to IGCC as separate items. Another suggestion from the Committee included an

effort to reach out to the graduate directors to review and, if needed, update their comprehensive exam requirements.

Concern was expressed about some units making changes to their policies or procedures without the approval of the Graduate Curriculum Committee. For example, a unit cannot decide to do away with qualifying examinations and not have that action approved by the Graduate Curriculum Committee.

It was suggested at the PhD level as well that the Registrar's Office enforce program requirements, all of them, so that there is consistent handling of these programs. The Registrar noted that there is a project scheduled that will gather the information on doctoral programs so that degree audits can be conducted more efficiently.

It was also noted that there needs to be a central repository of data on qualifying exam outcomes and admission to candidacy. Information is sometimes reported at the end of the student's career.

The results of the survey, it is hoped, will encourage conversation within the graduate units about the qualifying examination. It was noted that any changes to actual policy would have to be proposed to the Graduate Committee. It was also noted that some best practices or guidelines might be submitted to the Graduate Committee, and if endorsed, distributed to the academic units as a way to encourage more consistent and effective handling of the process.

Committee members did suggest that over-legislating this process could create even more confusion and more reason for grievances. Recommendations and proposals of new catalog language should be focused on areas that can be clearly described with actionable items that would aid clarity and consistency of operations and not delve into areas that could be looked at subjectively, appearing one way to some and another way to others.

Items Rolled Over

Due to time constraints, some items on the agenda were rolled over to the June 2017 meeting. Those items will be placed at the top of the agenda.

Student Petitions

1. A motion was made to table a request from the College of Computing to admit a student to the MS program. The motion was seconded and approved.

Note: The Committee would like more information on the student's background prior to enrollment in graduate studies.

2. A motion was made to approve Petitions Subcommittee actions in the following areas. The motion was seconded and approved.

All approved except where noted. Petitions were reviewed from 4/7/17 to 5/25/17.

14- Term withdrawal

8- Selective withdrawal **(2 Denied)**

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

4- Full graduate standing

1- Seven-year rule waiver

2- Readmit after 1st drop

2- One-hour enrollment waiver

1- Six-year rule waiver

1- Registration max hours overload request

1- Use courses taken on Special Status toward degree

2- Graduate without GPA (followed advisor to Tech from another school)

1- Use excess pass-fail hours toward degree

1- Double Count undergraduate courses toward MS degree

1- Waive transfer credit rule **(1 Denied)**

1- Apply to graduate after deadline

1- Allow course substitution

1- Allow level change from PhD to MS

1- Allow Course to be double counted after it has expired (BSMS program)
(1 Denied)

Adjourned,

Reta Pikowsky, Registrar
Secretary