

Institute Undergraduate Curriculum Committee
Academic Matters and Appeals (Full Committee)
Minutes

Tuesday, March 29, 2016

Present: Scott (CEE), Economou (ARCH), Goodisman (BIOL), Hollengreen (ARCH), Parsons (CoB), Pikowsky (Registrar), Potts (Vice Provost), Senf (LMC), Shepler (CHEM-Executive Board Liaison), Singleton (PSYC), Smith (ME), Wilkinson (CHEM/BIOCHEM), Yaszek (LMC), Zhou (ISYE)

Visitors: Hodges (Registrar), Cole (Registrar), Raczynski (CoC), Stewart (CEE), Lee (CoE), McGregor (CoC), Young (INTA), Cope (CoS), Boulard (ML), Kohl (ChBE), Leahy (CS), Collard (CoS), Nair-Reichert (ECON)

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. Notification or approval by the Southern Association of Colleges and Schools-CoC may also be required.

Note: All votes are unanimous unless specifically noted otherwise.

Academic Matters

1. A motion was made to *approve* a request from the School of Modern Languages to approve a new course. The motion was seconded and approved.

The vote was not unanimous. There were 8 votes to approve and 1 vote to abstain.

New Course – Approved

FREN 4250: Reading Les Miserable

3-0-3

Note: This course was approved upon the contingency that the syllabus be resubmitted to the Registrar's Office via ICC website with more indications of how ethics are discussed. The IUCC Chair (Acting Chair for this meeting) will review and give final approval on the required revisions to the syllabus. Additional updates to the syllabus should include the learning outcomes specified, a statement referring to services offered by the Office of Disability Services, and a mention of the GT Honor Code.

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

New Course – Approved

ECON 4520: Economics of Sports

3-0-3

Note: This course was approved upon the contingency that the syllabus be updated to align the language that addresses absences and the make-up of coursework (assignments and quizzes) with the Institute Approved Absences policy. An individual course syllabus cannot override or conflict with the Institute policy. The syllabus revision must also include a statement referring to the services offered by the Office of Disability Services.

Update: An updated syllabus which includes the requested edits was uploaded to the IUCC site 03/31/2016.

3. A motion was made to *approve* a request from the School of Civil and Environmental Engineering for a new course. The motion was seconded and approved.

New Course – Approved

CEE 3050: Introduction to Structural Engineering

3-0-3

4. A motion was made to *approve* a request from the College of Engineering for modification to all programs within the college. The motion was seconded and approved.

Degree Other – Approved

All schools within the College of Engineering are requesting to exclude PHYS 2XXX (AP credit) from being used toward degree requirements as it is not calculus-based which is required for programs within the College of Engineering. The programs feel that allowing credit for Physics AP that comes in as Physics elective credit would also result in some overlap of content with courses that students are required to take. See the AP score information in the Catalog for more information:

<http://www.catalog.gatech.edu/students/ugrad/geninfo/advplacement.php>

5. A motion was made to *table* a request from the School of International Affairs for a degree modification. The motion was seconded and approved.

Degree Modification – Tabled

Bachelor of Science in International Affairs

Note: This proposal included adding courses from other disciplines such as Computer Science to an elective area. The Committee requested that the units who teach these disciplines be notified and give approval of adding these courses to the BSINTA curriculum as elective options. There was also a question as to whether CS 2803 as listed in the proposal should have a permanent number.

A motion was made to *table* a request from the School of International Affairs for a degree modification. The motion was seconded and approved.

Degree Modification – Tabled

Bachelor of Science in International Affairs and Modern Language

Note: This proposal included adding courses from other disciplines such as Computer Science to an elective area. The Committee requested that the units who teach these disciplines be notified and give approval of adding these courses to the BSINTA curriculum as elective options. There was also a question as to whether CS 2803 as listed in the proposal should have a permanent number.

6. A motion was made to *approve* a request from the School of Chemical & Biomolecular Engineering for a new course. The motion was seconded and approved.

New Course – Approved

CHBE 4759: Electrochemical Energy Storage and Conversion 3-0-3

Note: The Committee requested that a statement be added to the syllabus to address services offered by the Office of Disability Services (change wording referring to the ADAPTS office to its new name).

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

Pre-requisite Modification – Approved

CS 3220: Processor Design

Current: CS 2200 with a minimum grade of C

Proposed: CS 2200 with a minimum grade of C **and** ECE 2031 with a minimum grade of C

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

Degree Modification – Approved

Bachelor of Science in Computer Science (Systems & Architecture Thread)

The College of Computing is requesting the addition of ECE 2031-The Digital Design Lab with a grade of "C" or higher as a required course in the Systems and Architecture Thread.

Systems Architecture faculty are finding students without hands on experience in hardware are struggling in CS 3220 (required for the thread). Adding ECE 2031 will fix this problem.

See Proposal #4955 for the Degree Requirements updates for each thread in BSCS.

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

Degree Modification – Approved Bachelor of Science in Computer Science (Information Internetworks thread)

The College of Computing is requesting to remove CS 4460 from the Advanced Information Management pick of the Information Internetworks thread. This is because the course is very different in style from the others in that pick. They focus on database and/or networking theory and technologies. CS 4460 is about information visualization. The other classes in the pick typically have prerequisites from the earlier required courses in the thread. CS 4460 does not. Effectively, this class is just a "duck out of water" among the other classes in that pick. It has also been determined the material in this class is not as central to this thread as those other courses are. It fits better as an elective in the thread.

Example of degree requirements for BSCS: Info-Internetworks Threads

- 4 [CS 2200](#) **c**
- 3 [CS 3510](#) or [CS 3511](#) **c**
- 4 [MATH 2403](#) **c**
- 6 [CS 3251](#) or [CS 4235](#) or [CS 4400](#) **c**
- 3 [CS 4237](#) or [CS 4251](#) or [CS 4255](#) or [CS 4261](#) or [CS 4270](#) or [CS 4365](#) or [CS 4420](#) or [CS 4440](#) or [CS 4460](#) or [CS 4675](#) **c**
- 6 [CS 4641](#) or [CX 4140](#) or [CX 4220](#) or [CX 4230](#) or [CX 4640](#) **c**

Other Required Courses	3	MATH 3012
	3	MATH 3215 or MATH 3670 or CEE 3770 or ISYE 3770 or (ISYE 2027 and ISYE 2028)
Free Electives	14	Free Electives
TOTAL:	126	

Pass-fail only allowed for Free Electives (max six hours), CS 1100, and CS 1171 (if required)

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

**Degree Modification - Other – Approved
Bachelor of Science in Computer Science (Theory Threads)**

The College of Computing is submitting this proposal to update the IUCC on the changes to MATH courses. This proposal focuses on the Theory Threads which requires MATH 2406 and will be updated to the new version MATH 3406 for the upcoming catalog year.

EXAMPLE: Applies to all Theory threads:

REQUIREMENT	REQ HRS	COURSE(S)	NOTES
Concentration	1	CS 1171	c
	4	CS 2110	c
	4	CS 2200	c
	3	CS 3510 or CS 3511	c
	3	CS 4510	c
	3	CS 4540	c
	4	MATH 2403	c
	3	MATH 2406 - MATH 3406	c
	6	CS 4641 or CX 4140 or CX 4220 or CX 4230 or CX 4640	c
	3	MATH 4022 or MATH 4032 or MATH 4150	c
Other Required Courses	3	MATH 3012	
	3	MATH 3215 or MATH 3670 or CEE 3770 or ISYE	

Free Electives	11	3770 or (ISYE 2027 and ISYE 2028)
TOTAL:	126	Free Electives

X
A

MPLE: Applies to all Theory threads

Bachelor of Science in Computer Science THREAD: Modeling - Simulation & Theory

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

Degree Modification - Other – Approved

Bachelor of Science in Computer Science (All Threads)

The College of Computing is submitting this proposal to update the IUCC on the changes to MATH courses. This proposal focuses on the MATH core courses for all threads.

Bachelor of Science in Computer Science (All threads)

REQUIREMENT	REQ HRS	COURSE(S)	NOTES
Wellness	2	APPH 1040 or APPH 1050	
Core A - Essential Skills	3	ENGL 1101	
	3	ENGL 1102	
	4	MATH 1501 MATH 1552	
	3	CS 1301	c
Core B - Institutional Options	6	Any HUM	
Core D - Science, Math, & Technology	4	PHYS 2211	a
	4	Lab Science	a
	4 2	MATH 1502 MATH 1551	
	4	MATH 1554	d
Core E - Social Sciences	3	HIST 2111 or HIST 2112 or INTA 1200 or POL 1101 or PUBP 3000	
	9	Any SS	
	4	Lab Science	a
Core F - Courses Related to Major	1	CS 1100	
	3	CS 1331	c
	3	CS 1332	c
	3	CS 2050 or CS 2051	c
	4 2	MATH 2605 MATH 2550	E

d = Also allow Honor's version MATH 1564 or MATH 1553 and MATH 3406.

e = Also allow MATH 2551 or MATH 2561.

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

Degree Modification - Other – Approved
Bachelor of Science in Computer Science (Modeling Simulation Threads)

The College of Computing is submitting this proposal to update the IUCC on the changes to MATH courses. This proposal focuses on MATH 2403 which is required in the Modeling Simulation threads which has been updated to MATH 2552.

Example for All BSCS Modeling-Simulation Threads

Bachelor of Science in Computer Science THREAD: Modeling - Simulation & Devices

REQUIREMENT	REQ HRS	COURSE(S)	NOTES
Concentration	1	CS 1171	c
	4	CS 2110	c
	4	CS 2200	c
	3	CS 3251	c
	3	CS 3510 or CS 3511	c
	2	ECE 2031	c
	4	MATH 2403 - MATH 2552	c
	4	CS 3651 or ECE 4185	c
	3	CS 3630 or CS 4261 or CS 4605	c
	6	CS 4641 or CX 4140 or CX 4220 or CX 4230 or CX 4640	c
Other Required Courses	3	MATH 3012	
	3	MATH 3215 or MATH 3670 or CEE 3770 or ISYE 3770 or (ISYE 2027 and ISYE 2028)	
Free Electives	11	Free Electives	
TOTAL:	126		

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

Degree Modification - Other – Approved
Bachelor of Science in Computer Science (Intelligence Threads)

Computer Vision (CS 4495) was approved as a new course number CS 4476. Request is to reflect new course number in Intelligence thread combinations.

Example: Applies to all Intelligence Threads

Bachelor of Science in Computer Science THREAD: Modeling - Simulation & Intelligence

REQUIREMENT	REQ HRS	COURSE(S)	NOTES
Concentration	1	CS 1171	c
	4	CS 2110	c
	4	CS 2200	c
	3	CS 3510 or CS 3511	c
	3	CS 3600	c
	4	MATH 2551	c
	3	CS 3240 or CS 4510	c
	3	CS 3630 or CS 3790 or PSYC 3040	c
	6	CS 4495 CS 4476 or CS 4635 or CS 4641 or CS 4649 or CS 4650 or CS 4731	c, d
	6	CS 4641 or CX 4140 or CX 4220 or CX 4230 or CX 4640	c, d
	Other Required Courses	3	MATH 3012
3		MATH 3215 or MATH 3670 or CEE 3770 or ISYE 3770 or (ISYE 2027 and ISYE 2028)	
Free Electives	8	Free Electives	d
TOTAL:	126		

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

Degree Modification - Other – Approved
Bachelor of Science in Computer Science (Devices Threads)

ECE is no longer teaching ECE 4185(Embedded Microcontroller Design) and the course has been replaced with ECE 4180(Embedded Systems Design). This should be updated for Devices thread combinations.

Example: Applies to all BSCS Devices Threads

Bachelor of Science in Computer Science THREAD: Modeling - Simulation & Devices

REQUIREMENT	REQ HRS	COURSE(S)	NOTES
Concentration	1	CS 1171	c
	4	CS 2110	c
	4	CS 2200	c

	3	CS 3251	c
	3	CS 3510 or CS 3511	c
	2	ECE 2031	c
	4	MATH 2552	c
	4	CS 3651 or ECE 4185 ECE 4180	c
	3	CS 3630 or CS 4261 or CS 4605	c
	6	CS 4641 or CX 4140 or CX 4220 or CX 4230 or CX 4640	c
Other Required Courses	3	MATH 3012	
	3	MATH 3215 or MATH 3670 or CEE 3770 or ISYE 3770 or (ISYE 2027 and ISYE 2028)	
Free Electives	11	Free Electives	
TOTAL:	126		

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

Degree Modification - Other – Approved
Bachelor of Science in Computer Science (Modeling and Simulation Threads)

This request is to correct an error in catalog for the BS in Computer Science Modeling Simulation thread combinations. CS 1171 has only been offered as a pass-fail course, but the catalog indicates it should have a 'C' minimum grade. The C-minimum should be removed.

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

New Course – Approved

CS 2701: Startup Lab: Introduction to Technology Ventures 2-3-3

Note: The Committee requested that the syllabus list the correct name of the Office of Disability Services (it is no longer referred to as the “ADAPTS” office). The Committee also recommended that the language in the syllabus under Phase 2 should cover a broader list of disciplines for the teams.

- A motion was made to *approve* a request from the School of Literature, Media, and Communication and the College of Computing for a degree modification - other. The motion was seconded and approved.

Degree Modification - Other – Approved
Bachelor of Science in Computational Media (All Threads)

The College of Computing and the School of Literature, Media, and Communication are submitting this proposal to update the IUCC on the changes to MATH courses. This proposal focuses on the MATH core courses for all threads.

Bachelor of Science in Computational Media (All threads)

REQUIREMENT	REQ HRS	COURSE(S)	NOTES
Wellness	2	APPH 1040 or APPH 1050	
Core A - Essential Skills	3	ENGL 1101	
	3	ENGL 1102	
	4	MATH 1501 MATH 1552	
Core B - Institutional Options	3	CS 1301	c
Core C - Humanities	3	Any HUM	
	3	Any LMC HUM	
Core D - Science, Math, & Technology	4	PHYS 2211	a
	4	Lab Science	a
	4 2	MATH 1502 MATH 1551	
	4	MATH 1554	d
Core E - Social Sciences	3	HIST 2111 or HIST 2112 or INTA 1200 or POL 1101 or PUBP 3000	
	9	Any SS	
Core F - Courses Related to Major	3	CS 1331	a
	3	CS 1332	
	3	CS 2050	c
	3	CS 2340	c
	3	LMC 2700	c
	4 2	MATH 2605 MATH 2550	e

d = Also allow Honor's version MATH 1564 or MATH 1553 and MATH 3406.

e = Also allow MATH 2551 or MATH 2561.

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

Degree Modification - Other – Approved

Bachelor of Science in Psychology

Bachelor of Science in Psychology: Business Option

The School of Psychology is requesting to add 'C-minimum' to Group B courses (pick 6 hours from: PSYC 2103, 2210, 2230, 2240). This was inadvertently left off

from last degree modification (see Proposal 4778). This is for both BPSYC and BPSYC: Business Option.

10. A motion was made to *approve* a request from the Schools of Applied Physiology, Biology, and Psychology for a program prospectus. The motion was seconded and approved.

Program Prospectus – Approved Bachelor of Science in Neuroscience

OBJECTIVES

- to promote several of the primary objectives in Georgia Tech’s Strategic Plan (GTSP)¹:
 - *objectives 1 and 4*: prepare our students for global leadership while pursuing globally significant grand challenges
 - *objective 3*: inspire creative and entrepreneurial thinking
 - *objective 9*: leverage technology to enhance knowledge transfer and learning.
- to gain entry for Georgia Tech into the elite group of peer universities competing for an ever growing group of students enrolling into undergraduate neuroscience degree programs. We design the program to give Georgia Tech a competitive edge through a unique brand of technology-based neuroscience education.
- to enhance the educational mission by leveraging growing strengths in neuroscience and related technologies across the Georgia Tech campus.
- to offer a curriculum that is distinct from other neuroscience undergraduate degrees in Georgia and builds upon Georgia Tech’s unique strengths. We aim to educate the next generation of entrepreneurial scientists and engineers to catalyze the growing national interest and need for neuro-technologies for treating brain disorders.

VISION OF THE PROGRAM

We envision a vibrant and rapidly growing undergraduate program awarding Georgia Tech students with a degree in one of the most topical fields in life sciences. The undergraduate major in neuroscience that we propose is readily leveraged by a strong community of neuroscience faculty, which has achieved critical mass and steady growth at Georgia Tech. Faculty participants will be drawn from multiple schools and departments, and even from different colleges, in line with the interdisciplinary nature of neuroscience. Special emphasis will be placed on coupling neuroscience education with training in applied solutions and technology, which exploits Georgia Tech’s traditional strengths in ways that will make our undergraduate major in neuroscience highly unique. Graduates from this program will have:

- up-to-date knowledge of the fundamentals of neuroscience integrated with mathematics, chemistry, physics, and engineering
- command of a multiscale knowledge base about brain structure and functions, from molecules through cells, networks, and systems to behavior
- familiarity with the methods, applied solutions, and technologies that have been adopted from wide ranging fields to achieve discovery and its translation into diagnoses and treatments of brain disorders.

This assortment of skills across multiple disciplines will ensure that students with a Bachelor of Science degree from Georgia Tech will be highly competitive in the expanding market for neuroscientists. The degree will also enable Georgia Tech to compete for the growing number of students pressing for academic degrees in the neurosciences.

Summary:

The Bachelor of Science in Neuroscience will be an interdisciplinary degree program with the bulk of course work generated through the Colleges of Sciences and of Engineering. Courses are designed to provide students with: (a) fundamental knowledge of neuroscience principles, e.g. structure and function of the nervous system; (b) approaches to solving problems in neuroscience using skills that incorporate quantitative and analytical methods adopted from physical sciences; (c) application of new technologies to probe normal nervous systems and to diagnose and treat neurological disorders. The portfolio of conceptual understanding and analytical skills mastered by students graduating with a BS in Neuroscience will make them highly competitive for the swelling markets in neuroscience and its broad reach, including for example, social sciences and business.

Note: There were several suggestions to the proposers for wording changes that could strengthen the document. The Registrar’s Office will upload the revised document to the USG SharePoint site as soon as it is received in final form from the proposers.

Administrative Item

1. Core Curriculum Overlay Requirements.

The Committee was notified of the BOR decision to discontinue Core Overlays.

Below is the language from the BOR memo regarding the decision.

On March 9, 2016 the Board of Regents approved a revision to BOR policies related to Core Curriculum 3.3.1.

Effective immediately

- Institutions will not be required to identify or track overlay requirements related to US Perspectives, Global Perspectives, and Critical Thinking.
- Students will not be required to complete the overlay requirements from this point forward.
- Students who are scheduled to graduate this semester and who have not completed the overlays may graduate without fulfilling this requirement.

Adjourned,

Reta Pikowsky
Registrar