

Institute Undergraduate Curriculum Committee
Academic Matters, Appeals, & Petitions (Full Committee)
Minutes
Tuesday, June 13, 2017

Present: Mayor (ME-IUCC Chair), Scott (CEE-IUCC Vice Chair), Pikowsky (Registrar), Coyle (ECE), Fenton (PHYS), Goodisman (BIOS-BIOL), LeBlanc (CoD-ARCH), Millard-Stafford (BIOS-APPH), Shook (ML), Smith (ME)

Visitors: Hodges (Registrar), Bush (Naval Science), Reinhold (Naval Science), Raczynski (CoC), Cressler (ECE/IAC), McDonald (HSOC), Balch (IC)

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.

The presence of 12 voting members is needed to reach a quorum.

This meeting did not have a quorum. The actions at this meeting will be noted as recommendations for the full Committee to vote via email.

Note: All votes are unanimous unless specifically noted otherwise.

Academic Matters:

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

NEW COURSES – APPROVED

IAC 2001: Global Religions and Community Engagement (3-0-3)

IAC 2002: Science, Engineering, and Religion: An Interfaith Dialogue (3-0-3)

2. 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 4646: Machine Learning for Trading (3-0-3)

Note: Since this course is cross-listed with a graduate version (CS 7646) the Committee requested a statement be added to the syllabus to distinguish the difference in rigor between the two versions.

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

Overview

The College of Computing is requesting to add CS 4646 (if approved) to the Approaches to Intelligence pick for the BSCS degree. This course will be one of 7 courses available in the pick where a student chooses two.

Curriculum

Below is an example of adding CS 4646 to the Intelligence and Modeling Simulation thread combination for the BSCS degree. Please add CS 4646 to the Approaches to Intelligence pick to **all seven** BSCS Intelligence thread combinations listed below.

1. Intelligence and Media
2. Intelligence and Modeling Simulation
3. Intelligence and Devices
4. Intelligence and People
5. Intelligence and Systems and Architecture
6. Intelligence and Theory
7. Intelligence and Information Internetworks

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

Major Requirements

CS 2340	Objects and Design ¹	3
CS 4001 or CS 4002	Computing, Society, and Professionalism ¹ Robots and Society	3

Junior Design Options (Capstone)		
Junior Design Option ^{1,4}		6
Concentration		
CS 1171	Introductory Computing in MATLAB	1
CS 2110	Computer Organization and Programming ¹	4
CS 2200	Computer Systems and Networks ¹	4
CS 3510	Design and Analysis of Algorithms ¹	3
or CS 3511	Design and Analysis of Algorithms, Honors	
CS 3600	Introduction to Artificial Intelligence ¹	3
MATH 2552	Differential Equations ¹	4
Select one of the following for Computational Complexity: ¹		3
CS 3240	Languages and Computation	
CS 4510	Automata and Complexity Theory	
Select one of the following for Embodied Intelligence: ¹		3
CS 3630	Introduction to Perception and Robotics	
CS 3790	Introduction to Cognitive Science	
PSYC 3040	Sensation and Perception	
Select six credit hours of the following for Approaches to Intelligence: ^{1,3}		6
CS 4635	Knowledge-Based Artificial Intelligence	
CS 4476	Introduction to Computer Vision	
CS 4641	Machine Learning	
CS 4649	Robot Intelli Planning	
CS 4650	Natural Language Understanding	
CS 4731	Game AI	
CS 4646	Machine Learning for Trading	
Select six credit hours of the following for Computational Science and Engineering: ^{1,3}		6
CS 4641	Machine Learning	
CX 4140	Computational Modeling Algorithms	
CX 4220	Introduction to High Performance Computing	
CX 4230	Computer Simulation	
CX 4640	Numerical Analysis I	

Other Required Courses

MATH 3012	Applied Combinatorics	3
Select one of the following:		3
MATH 3215	Introduction to Probability and Statistics	
MATH 3670	Probability and Statistics with Applications	
CEE 3770	Statistics and Applications	
ISYE 3770	Statistics and Applications	
or ISYE 2027 & ISYE 2028	Probability with Applications and Basic Statistical Methods	

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

Overview

The College of Computing is requesting to add two new courses to the ethics and professionalism area requirement for the BSCS degree.

- i. CS 4726 Privacy, Technology, Policy, and Law
- ii. SLS 3110 Technology and Sustainable Community Development

Offering two new courses in the area requirement will provide students more options, flexibility and choice. These two additional courses will also reduce the strain of finding instructors to teach additional sections of 4001/4002 as the growing program requires.

Curriculum

Proposal to add CS 4726 and SLS 3110 as options to Ethics/Professionalism requirement to all 28 thread combinations.

1. Devices and Information Internetworks
2. Devices and Intelligence
3. Devices and Media
4. Devices and Modeling Simulation
5. Devices and People
6. Devices and Systems Architecture
7. Devices and Theory
8. Information Internetworks and Intelligence
9. Information Internetworks and Media
10. Information Internetworks and Modeling Simulation
11. Information Internetworks and People
12. Information Internetworks and Systems Architecture
13. Information Internetworks and Theory
14. Intelligence and Media
15. Intelligence and Modeling Simulation
16. Intelligence and People
17. Intelligence and Systems Architecture

- 18. Intelligence and Theory
- 19. Media and Modeling Simulation
- 20. Media and People

- 21. Media and Systems Architecture
- 22. Media and Theory
- 23. Modeling Simulation and People
- 24. Modeling Simulation and Systems Architecture
- 25. Modeling Simulation and Theory
- 26. People and Systems Architecture
- 27. People Theory
- 28. Systems Architecture and Theory

Major Requirements		
CS 2340	Objects and Design ¹	3
CS 4001	Computing, Society, and Professionalism ¹	3
or CS 4002	Robots and Society	
or CS 4726	Privacy, Technology, Policy, and Law	
or SLS 3110	Technology and Sustainable Community Development	
Junior Design Options (Capstone)		
Junior Design Option ^{1,3}		6
Concentration		
CS 2110	Computer Organization and Programming ¹	4
CS 2200	Computer Systems and Networks ¹	4
CS 3251	Computer Networking I ¹	3
CS 3451	Computer Graphics ¹	3
ECE 2031	Digital Design Laboratory ¹	2
Select one of the following for Building Devices: ¹		4
CS 3651	Prototyping Intelligence Appliances	
ECE 4180	Embedded Systems Design	
Select one of the following for Devices in the Real World: ¹		3
CS 3630	Introduction to Perception and Robotics	
CS 4261	Mobile Applications and Services for Converged Networks	
CS 4605	Mobile and Ubiquitous Computing	
CS 4476	Introduction to Computer Vision	
Select one of the following for Algorithm Fundamentals: ¹		3
CS 3240	Languages and Computation	
CS 3510	Design and Analysis of Algorithms	
CS 3511	Design and Analysis of Algorithms, Honors	

Select two of the following for Media Technologies: ¹	6	
CS 4455	Video Game Design and Programming	
CS 4460	Introduction to Information Visualization	
CS 4464	Computational Journalism	
CS 4475	Computational Photography	
CS 4480	Digital Video Special Effects	
CS 4496	Computer Animation	
CS 4590	Principles and Applications of Computer Audio	
Other Required Courses		
MATH 3012	Applied Combinatorics	3
Select one of the following:		3
MATH 3215	Introduction to Probability and Statistics	
MATH 3670	Probability and Statistics with Applications	
CEE 3770	Statistics and Applications	
ISYE 3770	Statistics and Applications	
or ISYE 2027 & ISYE 2028	Probability with Applications and Basic Statistical Methods	

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

DEGREE MODIFICATION – APPROVED

Bachelor of Science in Computational Media

Overview

The College of Computing is requesting to add CS 4646 (if approved) to the Approaches to Intelligence pick for the BSCM degree. This course will be one of 7 courses available in the pick where a student chooses two.

Curriculum

Below is an example of adding CS 4646 to the Intelligence and Game Studies thread for the BSCM degree thread combination. Please add CS 4646 the Approaches to Intelligence pick to **all** four BSCM Intelligence thread combinations listed below.

1. Intelligence and Film, Performance, and Media Studies
2. Intelligence and Game Studies
3. Intelligence and Interaction Design and Experimental Media
4. Intelligence and Narrative Studies

Bachelor of Science in Computational Media- Intelligence- Game Studies

Major Requirements		
CS 2261	Media Device Architectures ¹	4
CS 4001	Computing, Society, and Professionalism	3
Junior Design Options (Capstone)		
Junior Design Option ^{1,3}		6
Intelligence Requirements		
CS 3510	Design and Analysis of Algorithms ¹	3
CS 3600	Introduction to Artificial Intelligence ¹	3
CS 4510	Automata and Complexity Theory ¹	3
Select one of the following: ¹		3
CS 3630	Introduction to Perception and Robotics	
CS 3790	Introduction to Cognitive Science	
PSYC 3040	Sensation and Perception	
Select two of the following: ¹		6
CS 4495	Computer Vision	
CS 4635	Knowledge-Based Artificial Intelligence	
CS 4641	Machine Learning	
CS 4649	Robot Intelli Planning	
CS 4650	Natural Language Understanding	
CS 4731	Game AI	
CS 4646	Machine Learning for Trading	
Game Studies Requirements		
Select three of following: ¹		9
LMC 4720	Interactive Narrative	
LMC 4725	Games Design as a Cultural Practice	
LMC 4731	Game AI	
CM or Media Courses ^{1,2}		18

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

DEGREE MODIFICATION – APPROVED

Bachelor of Science in Computational Media

Overview

The College of Computing is requesting to add two new courses to the ethics and professionalism area requirement for the BSCS degree.

- i. CS 4726 Privacy, Technology, Policy, and Law
- ii. SLS 3110 Technology and Sustainable Community Development

Offering two new courses in the area requirement will provide students more options, flexibility and choice. These two additional courses will also reduce the strain of finding instructors to teach additional sections of 4001/4002 as the growing program requires.

Curriculum

1. Proposal to add CS 4726 and SLS 3110 as options to Ethics/Professionalism requirement to all 12 BSCSM thread combinations. [Bachelor of Science in Computational Media - Intelligence - Film, Performance, & Media Studies](#)
2. [Bachelor of Science in Computational Media - Intelligence - Game Studies](#)
3. [Bachelor of Science in Computational Media - Intelligence - Interaction Design & Experimental Media](#)
4. [Bachelor of Science in Computational Media - Intelligence - Narrative Studies](#)
5. [Bachelor of Science in Computational Media - Media - Film, Performance, & Media Studies](#)
6. [Bachelor of Science in Computational Media - Media - Game Studies](#)
7. [Bachelor of Science in Computational Media - Media - Interaction Design & Experimental Media](#)
8. [Bachelor of Science in Computational Media - Media - Narrative Studies](#)
9. [Bachelor of Science in Computational Media - People - Film, Performance, & Media Studies](#)
10. [Bachelor of Science in Computational Media - People - Game Studies](#)
11. [Bachelor of Science in Computational Media - People - Interaction Design & Experimental Media](#)
12. [Bachelor of Science in Computational Media - People - Narrative Studies](#)

Major Requirement		
CS 2110	Computer Organization and Programming ¹	4
CS 4001	Computing, Society, and Professionalism	3
Or CS 4726	Privacy, Technology, Policy, and Law	
Or SLS 3110	Technology and Sustainable Community Development	

Junior Design Options (Capstone)

Junior Design Option ^{1,3}		6
Intelligence Requirements		
CS 3510	Design and Analysis of Algorithms ¹	3
CS 3600	Introduction to Artificial Intelligence ¹	3
CS 4510	Automata and Complexity Theory ¹	3
CS 3630 or CS 3790 or PSYC 3040	Introduction to Perception and Robotics ¹ Introduction to Cognitive Science Sensation and Perception	3
Select two of the following: ¹		6
CS 4495	Computer Vision	
CS 4635	Knowledge-Based Artificial Intelligence	
CS 4641	Machine Learning	
CS 4649	Robot Intelli Planning	
CS 4650	Natural Language Understanding	
CS 4731	Game AI	
Film, Performance, & Media Studies Requirements		
LMC 2400 or LMC 2500 or LMC 2600	Introduction to Media Studies ¹ Introduction to Film Introduction to Performance Studies	3
Select four of the following: ¹		12
LMC 3206	Communication and Culture	
LMC 3252	Studies in Film and Television	
LMC 3254	Film History	
LMC 3256	Major Filmmakers	
LMC 3257	Global Cinema	
LMC 3258	Documentary Film	
LMC 3259	Experimental Film	
LMC 3314	Technologies of Representation	
LMC 3352	Film and/as Technology	
LMC 3362	Science, Technology and Performance	
CM or Media Courses ^{1,2}		12

4. A motion was made to *deny* a request from the School of History and Sociology for a new course. The motion was seconded and approved.

NEW COURSE – DENIED

This vote was not unanimous. There were 5 votes to deny, 4 votes to approve, and 1 vote to abstain.

HTS 3074: Culture and Sports (3-0-3)

Note: The Committee expressed strong concern over this course being offered as a repeatable course. We do offer repeatable courses, but those are in the form of Special Topics, Special Problems, or Research type courses. The Committee recommended proposing the course in a non-repeatable manner.

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

MINOR MODIFCATION – APPROVED with edits Sports, Society, and Technology minor

Overview

The request is to add the ECON 4520 Economics of Sports class to the SST minor as this course has relevant material for the SST minor.

Curriculum

This is a 15-hour undergraduate minor.

A multidisciplinary minor may contain courses in a student's major field of study. A maximum of 6 credit hours of such courses may be used to satisfy the course requirements for the minor, provided these courses are not also used to satisfy any course requirement in the student's major degree program.

In addition to the courses listed here, there are other courses offered less regularly—for example, Special Topics and Undergraduate Research classes--- that may count toward the minor. The SST adviser should be consulted for guidance. Three credit hours taken outside of SST courses may be counted toward the minor, **with the approval of the SST minor advisor.**

Course List

HTS 3022 Gender and Sports

HTS 3073 Sociology of Sports

HTS 3075 Foundations of Sports Studies

APPH 2500 Intro to Sport Science

INTA 3242 Soccer & Global Politics

~~ECON 4813 Special Topics: Economics and Sports~~ **ECON 4520 Economics of Sports**

MGT 4803 Special Topics

ARCH 4803 Special Topics

Note: This proposal originally requested HTS 3074 Culture and Sports also be added to the course list. The minor was approved on the contingency that

proposal was updated to not include HTS 3074 Culture and Sports since it was voted as denied by the Committee.

Discussion Items:

1. The Department of Naval Sciences addressed the Committee with a presentation about a forthcoming proposal for a new minor in Naval Sciences. The Committee provided feedback which included the need to gather data that would be included in the formal proposal that would document possible interest in the program. It will be important to not what the possible audience or audiences would be for this minor.

Another recommendation was to remove the statement which indicates that students *not* enrolled in the ROTC are highly unlikely to pursue this minor. It was confirmed that the minor proposal did not have to be approved via the Provost Curriculum Committee since the proposing unit is listed under the jurisdiction of the Ivan Allen College.

In follow up discussions, the Registrar's Office also noted that there is a cap on ROTC courses that may be used toward electives/free electives. These areas are frequently used by students to also meet minor requirements. The unit was asked to address this cap on the ROTC courses which may be used in the proposal. It will be important for the IUCC to know if the proposal is asking for an exception to this rule, for the minor.

This may be an important question given that students pursuing this minor would already need to take more courses than what is required for their major program. If the limitation on use of ROTC courses is not requested as an exception, the number of hours that could be counted within the major for this minor could be even further restricted.

The Committee was generally in favor of seeing a proposal for this new minor.

2. The Committee discussed the question raised recently about 4000-level courses being used for double-counting in BS/MS degree programs. This question raised another series of questions about 4000-level courses and how we define them.

Current policy statements on this matter include the following:

<http://registrar.gatech.edu/docs/pdf/numbers.pdf>

Course Numbering System

NOTES

- Courses numbered 4000-4999 are senior/graduate level and can be used as part of an undergraduate or graduate program.
- Courses numbered 1000-2999 cannot be used as part of a graduate program. Graduate students are restricted

- from registering for 1000-2999 level courses. Special permission must be obtained from the academic unit
- responsible for teaching the course.
- Individual programs may allow a reasonable number of 3000-level courses to be used for a Master's degree.
- Seniors with a grade point average of at least 2.7 may schedule 6000 level courses if permission from the academic

<http://www.catalog.gatech.edu/academics/special-academic-programs/bs-ms-programs/>

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**. The BS/MS programs typically include research and mentoring components and have their own GPA requirements.

<http://www.catalog.gatech.edu/rules/9/>

E. Undergraduate Students Taking Graduate Courses

A senior with a grade-point average (GPA) of at least 2.7 may enroll in a graduate course if she/he obtains permission from the school or department offering the course.

1. Up to twelve credit hours earned as an undergraduate student may count toward earning a master's degree if the following conditions are satisfied.
 - a. The student was in residence at Georgia Tech for at least two semesters before registering for the course(s).
 - b. The student did not apply credit for the course toward a bachelor's degree. Special exceptions may apply in certain schools, as described below.
 1. **If student pursues both a bachelor's and master's at Georgia Tech, and if both degrees are in the same discipline, she/he may apply up to six credit hours of graduate-level credit in the major discipline to satisfying the requirements for both degrees.** Because some master's degree programs do not have any unique undergraduate counterpart program, and because some master's programs are offered by several schools, the definition of "discipline" will be broadly interpreted in such cases. To qualify for this option, a student must complete the bachelor's degree with a cumulative grade-point average (GPA) of 3.5 or higher, and she/he must complete the master's degree within a two-year period following the award date of the bachelor's degree.

After a lengthy discussion, the Committee expressed interest in requesting that the Student Regulations Committee review the course numbering system to determine if it still makes sense and to determine if the intent, especially of the 4000-level courses is reflected in the current policy.

The numbering scheme has been around for many years, and it may be that the original intent of the 4000-level courses has been misunderstood. Creation of BS/MS programs should perhaps have produced a clarifying statement many years ago.

The Registrar's Office will ask the Chair of the Student Regulations Committee if this would be an appropriate agenda item. If so, before any changes are made, the Student Regulations Committee would provide feedback to the Curriculum Committees and ask for input before any proposals are sent on to the Academic Faculty Senate.

Adjourned,

Reta Pikowsky, Registrar
Secretary