

**Institute Undergraduate Curriculum Committee
MINUTES**

18 January 2006

3:00 - 5:00 pm

College of Science Conference Room

PRESENT: Byars (MGT), Pikowsky (Registrar), Williams (ECE), Benkeser (BME), Guzdial (CoC), Ferri (ME), Kohl (ChBE), Bottomley (CHEM), Jarrett (COA), Kingsley (PUBP), Webster (CEE)

VISITORS: Earwood (CoC), Pilsch (CoC), Carter (MSE), Isbell (CoC), Thompson (PUBP), Corso (PSY), Carson (Registrar), Bradd (Registrar)

1. Student petition to waive 36-hour rule was approved.
2. Informational item: prerequisite changes in the CS Program were reviewed.
3. A motion was made to approve requests from the School of Psychology to change BS in Psychology degree requirements. The motion was seconded and approved. Unanimous.

Require ISYE 2027 to replace the required third Math course and as a prerequisite for PSYC 2020.

[School will provide Associate Registrar with 8-term plan.]

COURSES MADE INACTIVE

PSYC 2010 Research Methods 3-0-3

Replace with PSYC 2015 4-0-4 with a one hour reduction in free electives

Modify the Senior Thesis Option to be consistent with the Institute Research Plan Option.

MAKE INACTIVE

PSYC 4501 Senior Thesis 3-0-3

NEW COURSES

PSYC 4600 Senior Thesis I 0-9-3

PSYC 4601 Senior Thesis II 0-9-3

Add requirement for the “Writing an Undergraduate Thesis” course for 2 hours and reduce by 5 hours the free electives for those students seeking the Research Plan Option.

Proposed minor in Psychology.

Foundation Courses:

PSYC 2015 – Research Methods

PSYC 2020 – Psychological Statistics

Advanced Courses:

Twelve (12) hours of Psychology courses at or above the 3000 level with the following restrictions:

Courses excluded:

PSYC 3031 Experimental Analysis of Behavior

PSYC 4031 Applied Experimental Psychology

Additional regulations (as stipulated by the Office of the Registrar):

No more than 4 semester hours of Special Topics courses may be used in a minor program.

Special Problem courses may not be used.

All courses must be completed at Georgia Tech.

All courses must be taken on a letter grade basis and must be completed with an overall GPA of 2.0.

Research Option Plan [Approved on the condition that it must also be approved by the Research Plan Committee.]

The student must enroll in 3 hours of Special Problems during the Second Semester of the junior year. During the Fall and Spring Semesters of the senior year, the student will enroll in 3 hours of senior Thesis I and 3 hours of Senior Thesis II respectively. Additionally, the student must be in the “Writing an Undergraduate Thesis” class.

During the first 3 hours of Special Problems, the student will explore various methods, issues, approaches to psychological research within the area the student is considering for the Senior Thesis. The product from the student's activities in this course will be a paper summarizing the student's activities for the past semester and a research idea. The product for the Senior Thesis I course will be a written research proposal that includes:

1. Summarizing the literature
2. Description of the problem
3. Testable hypotheses
4. An experimental protocol
5. A work plan and schedule

The product for the Senior Thesis II course will be a written thesis, with appropriate literature, research protocol and results that addresses the hypotheses proposed during the Senior Thesis I course.

The current Senior Thesis evaluation procedure within the School of Psychology will not be modified.

The School of Psychology will use the criteria proposed for evaluation as set forth in the Research Plan Proposal of February 26, 2005.

4. A motion was made to approve requests from the School of Materials Science and Engineering for two new courses, MSE 3025 and MSE 3003 and to make MSE 3005 inactive. The motion was seconded and approved. Unanimous.

NEW COURSES

MSE 3003 Mechanical Behavior of Materials 4-0-4

MSE 3025 Statistics and Numerical Methods in Materials Science and Engineering 3-0-3

COURSES MADE INACTIVE

MSE 3005 Mechanical Behavior of Materials

A motion was made to approve revision in the MSE curriculum. The motion was seconded and approved. Unanimous.

Replace MSE 4004 with an Elective to be chosen from a list including:

MSE 4004 Materials in Electronic Applications 3-0-3

MSE 4325 Thin Film Materials Science 3-0-3

MSE 4754 Electronic Packaging Assembly, Reliability, Thermal Management, and Test), MSE 4791 (Mechanical Behavior of Composites 1-6-3

MSE 4793 Composite Materials and Processing 3-0-3

MSE 4803 Nanomaterials and Nanotechnology 3-0-3

MSE 4803 Nanomaterials – Properties and Processing 3-0-3

MSE 4803 Introduction to Biomaterials 3-0-3

[Note: A future request to the IUCC will request cross-listing of MSE 4803 (Introduction to Biomaterials) with BME.]

Replace the requirement of ISyE 3770 Statistics and Applications 3-0-3 with MSE 3025 Statistics and Numerical Methods in Materials Science and Engineering 3-0-3.

Replace the requirement of taking either ME 2211 or AE 2120 with the requirement of taking COE 2001.

Replace MSE 3005 Mechanical Behavior of Materials 3-0-3 with MSE 3003 Mechanical Behavior of Materials 4-0-4.

5. A motion was made to approve a request from the School of Biomedical Engineering for approval of new courses. The motion was seconded and approved. Unanimous.

NEW COURSES

BIOL 4752 Introductory Neuroscience 3-0-3

BMED 4752 Introductory Neuroscience 3-0-3

BMED 4400 Neuroengineering Fundamentals 2-6-4

6. The request from the School of Aerospace Engineering for a new course, AE 4310, and deactivation of AE 4380 was tabled.
7. A motion was made to approve a package of requests from the School of Computer Science (see: <http://www.cc.gatech.edu/~tpilsch/threads/> for details). The motion was seconded and approved. Unanimous.

NEW COURSES

CS 1301 Introduction to Computing 3-0-3

CS 1331 Introduction to Object-Oriented Programming 3-0-3

CS 1332 Data Structures and Algorithms for Application 3-0-3

CS 3451 Computer Graphics 3-0-3

CS 3650 Prototyping Intelligent Appliances 2-3-3

CS 3750 Human Computer Interface Design and Evaluation 3-0-3

CS 4365 Introduction to Enterprise Computing 3-0-3

CS 4460 Introduction to Information Visualizations 3-0-3

CS 4475 Computational Photography 3-0-3

CS 4550 Scientific Data Processing and Visualization 3-0-3

CS 4560 Verification of Systems 3-0-3

CS 4590 Principles and Applications of Computer Audio 3-0-3

CS 4605 Mobile and Ubiquitous Computing 3-0-3

CS 4615 Knowledge Based Modeling and Design 3-0-3

CS 4616 Pattern Recognition 3-0-3

CS 4625 Intelligent and Interactive Systems 3-0-3

CS 4635 Knowledge-based AI 3-0-3

CS 4685 Pervasive Systems and Networking 3-0-3

CS 4690 Empirical Methods for User Interface Design and Evaluation
3-0-3

CS 4731 Game AI 3-0-3

Approval of CS 1301 as meeting General Computing Literacy requirements

Students will be able to:

1. Use software to develop, modify, visualize, share, and present graphical and textual information.
2. Use numerical analysis and database software to organize, process, and analyze information.
3. Describe the basic operation and organization of major computer hardware and software components, and the networking environments in which they operate.
4. Design and implement algorithms to solve problems using structured programming techniques.
5. Design and implement a data representation that facilitates problem solving.
6. Estimate the complexity of basic algorithms and distinguish between reasonable and unreasonable approaches.

These requirements will be met in CS1301 as they were in CS1321—those aspects of CS1301 will be the same:

- CS1301 will continue to include unsupervised laboratory activities on use of Word, Excel, and PowerPoint, to meet Points 1 and 2 above.
- CS1301 will address basic aspects of hardware and software organization as CS1321 has in the past (Point 3).
- The main focus of CS1301 will be on algorithmic problem solving (Point 4).
- Data representation will be less emphasized in CS1301 in comparison with CS1321, but will still be present (Point 5).

- Basic notions of algorithmic complexity will be touched upon in CS1301 (Point 6).

Changes in Prerequisites (See <http://www.cc.gatech.edu/~tpilsch/threads/> for details)

New Requirements for BS in Computer Science

Threads™ represent a new way to organize an undergraduate education.

A Thread™ provides an intuitive, flexible and mutually strengthening set of courses that allows a student to craft her own distinctive future in an area that is certain to have societal value in the emerging world. A Thread™ provides a skill and credential basis that allows graduates to create value in ways beyond what would be possible with only a narrowly focused tool set.

The College of Computing defines eight Threads™:

- Computing & Computational Modeling
- Computing & Embodiment
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- Computing & Information Internetworks
- Computing & Intelligence
- Computing & Media
- Computing & People
- Computing & Platforms

See <http://www.cc.gatech.edu/~tpilsch/threads/> for more details.

Changes to the requirements for the Minor in CS.

Requirements for the Minor in Computer Science

1. Prerequisite: CS 1331.
2. Complete at least 18 semester hours of Computer Science coursework of which 12 semester hours must be at the 3000-level or higher.

3. Those courses at the 3000-level or higher must be selected from any existing required or elective Computer Science courses in any Thread.
 4. At least two of those courses must be in the same Thread to develop depth in an area.
 5. No special problems or Internship coursework may be used.
 6. All courses must be completed for a letter grade with a C or better.
 7. Courses required by name and number in a student's major degree program may not be used in satisfying the CS minor requirement.
8. Issues related to Minor and Certificate guidelines were tabled pending further review and additional information.
 9. A motion was made to approve two requests from the School of Public Policy related to degree requirements and a new leadership certificate. The motion was seconded and approved. Unanimous.

A grade of C or better is required in all BSPP core courses. No core courses may be taken on a pass/fail basis.

New Leadership Certificate

Adjourned,

Reta Pikowsky
Registrar