2016-2017 GCC Members (VISITORS SIGN BACK):

Bafna, Sonit (CoD-Arch)
Balch, Tucker (CoC-IC)

Bamburowski, David (Graduate Studies)

Breedveld, Laurens (CHBE - GCC Chair)

Ceccagnoli, Marco (CoB)

Chow, Edmond (CoC-CSE)

Cozzens, Susan (Vice Provost)

Dickson, Robert (CHEM)

Dixon, Brandon (ME)

Dovrolis, Konstantions (CoC-CS)

Flowers, Benjamin (CoD-ARCH)

Hays, James (CoC-IC)

Henderson, Clifford (ChBE)

Jagoda, Jechiel (AE)

Jayaraman, Sundaresan (MSE)

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)

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<tr>
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<th>Dept/School</th>
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<tr>
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<td>Reg</td>
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<tr>
<td>Katie Tudini</td>
<td>OIE</td>
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<tr>
<td>Jana Stone</td>
<td>GEFD</td>
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<tr>
<td>Dick Hennenman</td>
<td>HC/IC</td>
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<tr>
<td>Anna Troup</td>
<td>MLC</td>
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<td>David Nurse</td>
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<td>Richard Lin</td>
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<td>Alice Woolard</td>
<td>OAE</td>
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<td>James Black</td>
<td>Grad Studies</td>
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<td>Ken Little</td>
<td>CZD2</td>
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<td>Stephen Ruffin</td>
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<td>Joel Sokol</td>
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<td>Jung Choi</td>
<td>BioSc</td>
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<td>Jeffrey Hu</td>
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<td>Kyla Ross</td>
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<td>Neha Kumar</td>
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<td>David White</td>
<td>GC</td>
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<td>Saby Minh</td>
<td>COB</td>
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<tr>
<td>David Scripka</td>
<td>MSE/Grad SCA</td>
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Institute Graduate Curriculum Committee
Minutes
Thursday, April 6, 2017

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

Visitors: Hodges (Registrar), Tudini (OIE), Stone (GEFD), Henneman (CoC-IC), Stenport (ML), Shook (ML), Utz (LMC), Woolard (OAE), Black (Grad Studies), Little (C2D2), Ruffin (AE), Sokol (ISyE), Choi (BIOS), Hu (CoB), Ross (BMED), Kumar (INTA/IC), White (CoC), Mitra (CoB), Scripka (MSE/Grad SGA)

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.

Discussion Item:

1. The Office of International Education addressed the Committee on managing internships for graduate students.

2. The School of Modern Languages addressed the Committee with a pre-presentation on a forthcoming proposal for a new degree: Master of Science in Applied Languages and Intercultural Studies as well as proposing for the BS/MS Option for BSALIS/MSALIS.

3. The Schools of Literature, Media, & Communication and Modern Languages addressed the Committee with a pre-presentation on a forthcoming proposal for a new degree: Master of Science in Media, Culture, and Technology.
Academic Matters:

1. A motion was made to approve a request from the School of Biological Sciences for a new BS/MS Option. The motion was seconded and approved.

BS/MS Option – APPROVED
BS in Biology/MS in Bioinformatics

**Proposed:** that BIOL create a 5-year combined BS BIOL/MS BINF program to be offered for undergraduate students interested in careers in computational biology and genomics.

Georgia Tech General Catalog Reference: Academics (BS/MS Degree Programs)
http://www.catalog.gatech.edu/specialacademic/fiveyear.php

**Overview**

A 5-year combined BS BIOL/MS BINF program would address a growing demand for scientists who can manage and analyze high-throughput biological data. The professional MS Bioinformatics has doubled enrollment over the last 3 years. The graduates from the program have an excellent track record of getting jobs in the field, or going to PhD programs. However, the program has had difficulty finding qualified applicants who are US citizens, especially from under-represented minorities. Georgia Tech, because of the prestige of its science, engineering and computing programs, attracts undergraduate students with strong quantitative and computational interests. Therefore, Georgia Tech undergraduates are a natural pool of highly capable students for computational biology. The current BS Biology curriculum requires only slight modification to ensure that students who graduate with the BS Biology degree are well-prepared and qualified for the MS Bioinformatics program. Students who complete the 5-year program would save substantially on the tuition cost of the MS Bioinformatics program, by being enrolled for only 2 semesters rather than 3 or 4 semesters. The program will not penalize students who opt out after the bachelor’s degree.

**Responses to Potential Concerns:**

*How much would this cost BIOL?* Implementation of a BS BIOL/MS BINF option in the School of Biological Sciences will incur no additional administrative costs. The undergraduate and graduate advising of these students will be coordinated between the School's Academic Professionals and the Academic Program Coordinator and Faculty Director of the professional MS Bioinformatics program.

*How does this affect the professional program tuition surcharge for the MS Bioinformatics program?* Students in 5-year BS/MS programs at Georgia Tech are awarded the BS degree, then enrolled in the graduate degree program. For the BS Biol/MS BINF degrees, students must be registered for at least 2 semesters as MS BINF students, and pay the professional program tuition for those semesters they are enrolled in the MS BINF program. Over a dozen units at Georgia Tech currently offer a 5-year BS/MS, including:

1 http://www.catalog.gatech.edu/students/ugrad/degrees/fiveyear.php
How large is the potential pool of BS BIOL/MS BINF students?
Initially, we anticipate that candidates will be drawn from the pool of undergraduate students in the School of Biological Sciences. Currently, relatively few undergraduate Biology majors appear interested in computing, as most take CS1315 Intro Media Computation to satisfy their computing requirement. However, we believe that this program can draw students with computing interests to Georgia Tech’s School of Biological Sciences, both from within Georgia Tech, and from prospective students throughout the U.S. and abroad. The application of computing to human health, the environment, and biotechnology will be attractive to women and minorities. The MS Bioinformatics program has 40-50% women, a proportion far higher than for computer science or engineering graduate programs at Georgia Tech. We anticipate 10 students per year in this program over the next few years, limited by the capacity of the MS BINF program faculty to mentor MS BINF students.

When do we want this program up and running?: As soon as possible. We will start accepting applications as soon as our program is approved. All courses and infrastructure are already in place, so we just need program approval by the School, College, and Institute.

Who would administer this program?: as a joint BS/MS program, general advising would be carried out by our undergraduate advisors, the Academic Program Coordinator and the Director of the Bioinformatics program as appropriate. Admissions and program administration will be handled by the MS Bioinformatics program administrators.

BIOL 5yr BS/MS Degree Eligibility Requirements
Students with a GPA of 3.3 or higher are eligible to apply for the program after completion of 30 semester credits at Georgia Tech, but before the completion of 90 semester credit hours, including transfer and advanced placement credits. At the time of application, students must have completed CS1301 or CS1371, and either completed or registered for Multivariable Calculus (Math 2550,
2551, 2561, or 2605). Students who have more than 90 credit hours are unlikely to be considered, but may request permission to apply late into the program. Continuation into the M.S. degree requires the student complete the B.S. requirements with an overall GPA of 3.0 or higher, and complete the M.S. requirements (37 cr.) with an overall GPA of 2.7 or higher. Several courses (Biol 6150 and BIOL 7200) required for the 5-year degree can be used as Biology and Free Electives, however undergraduate students that opt out of the MS Binf program after 90 credit hours may require course substitutions to graduate.

As part of the 5-year BS BIOL/MS BINF degree, students will complete the following selection of classes to fulfill the requirements for the BS degree.

<table>
<thead>
<tr>
<th>Curriculum BSBIOL/MSBINF Requirements</th>
</tr>
</thead>
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<tr>
<td>Used to satisfy BS BIOL requirement</td>
</tr>
<tr>
<td>Computing Requirement</td>
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<tr>
<td></td>
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<tr>
<td>Quantitative Biology Requirement</td>
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<td>Biology Elective</td>
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<td>Biology Elective</td>
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<tr>
<td>Free Elective</td>
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See Proposal 5197 on ICC for program of study.

Note: The Committee encouraged that the proposal state students must have completed (instead of will have completed) CS1301 or CS1371. This change was updated in the proposal and the minutes.
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 6745: Technology and Poverty (3-0-3)**

**Note:** The Committee expressed concern over the appropriateness of the course title. The suggested new descriptive title ‘Information & Communication Technology: Global Development’ with transcript title ‘INFO&COMM TECH: GLOB DEV’. The Committee and academic unit agreed these title changes would appropriately reflect the content of the course. This suggested change will also be reviewed within the Institute Undergraduate Curriculum Committee and a decision requested in an email vote. If the IUCC also agrees on the changes, the course will move forward to the Academic Faculty Senate for approval. If not, it will be held by both Committees until the issue of the title is settled.

The Committee also requested the same syllabus be submitted for both CS 6745 and INTA 6745 which should indicate the difference between undergraduate and graduate student requirements.

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

**New Course – APPROVED**
**INTA 6745: Technology and Poverty (3-0-3)**

See notes related to CS 6745 above.

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

**New Course – APPROVED**
**PSYC 6755: HCI Foundations**

**Note:** The descriptive title was suggested to be updated to ‘Human-Computer Interaction Foundations’ instead of ‘Human-Computer Interaction’. This change has been made to the NCP and all grade modes have been selected.
4. 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 6755: HCI Foundations**

See notes related to PSYC 6755 above.

5. A motion was made to approve a request from the Schools of Industrial Design, Interactive Computing, Literature, Media, & Communication, and Psychology for a degree modification. The motion was seconded and approved.

**Degree Modification – APPROVED**
**Master of Science in Human-Computer Interaction**

**Overview**

The goal of this proposal is to modify Specialization elective requirements for the MS-HCI program to increase flexibility, to clarify presentation of requirements, and to update the course listing to fix errors and to bring the list up to date with what is now being taught.

**Summary:**

- Clarify Elective Course requirement by rewording overview description.
- Increase the electives in the LMC track to increase the program flexibility.
- Eliminate a required ID track course (ID 6100) that duplicates material taught in a required core class (PSYC 6023).
- Eliminate a required PSYC track course (7101) that duplicated material covered in other MS-HCI courses; add additional PSYC track electives to increase the flexibility of the program.
- Remove courses that have not been taught for at least 5 years or that have been replaced with courses with permanent numbers.
- Remove section, “Non-credit seminars”, in the list of Elective courses since these seminars do not count towards degree requirements. (Suggested seminars will still be communicated to students in a different format.)
- Remove cross-listing information for courses that must be taken in a particular department to meet Specialization requirements.
- Remove section, “Seminar”, as this repeats the course requirement (CS/ID/LMC/PSYC 6753) that is already listed in the “Fixed Core” section.
NOTE:

Deleted text is highlighted in **aqua**.

New text is highlighted in **yellow**.

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**Master of Science in Human - Computer Interaction**

The interdisciplinary Master of Science in Human-Computer Interaction (HCI) degree program is a cooperative effort of the School of Interactive Computing; the School of Literature, Media and Communication; the School of Industrial Design, and the School of Psychology. The program provides students with the practical and interdisciplinary skills and theoretical understanding they will need to become leaders in the design, implementation, and evaluation of the computer interfaces of the future.

**Curriculum**

The HCI master's degree is a four-semester program consisting of a total of 36 credit hours. Each student is required to complete a set of four core courses, a set of elective courses based on their academic background and interests, a set of area specialization courses based on the academic unit in which they reside, and a Master's research project. The specific courses for each student are determined by the HCI program coordinator in consultation with the academic unit. The area
specialization courses are determined by the academic unit in which the student resides. The areas of specialization are: Interactive Computing; Digital Media (DM, through the School of Literature, Media and Communication); Industrial Design; and Psychology.

<table>
<thead>
<tr>
<th>Specializations</th>
<th>Fixed Core Credit Hours</th>
<th>Specialization Credit Hours</th>
<th>Elective Credit Hours</th>
<th>Project Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interactive Computing</td>
<td>9</td>
<td>9</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Digital Media</td>
<td>9</td>
<td>12</td>
<td>9</td>
<td>12</td>
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<tr>
<td>Industrial Design</td>
<td>9</td>
<td>12</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Psychology</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>6</td>
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Each student is required to maintain a 3.0 grade point average across credit hours used to fulfill degree requirements, a minimum grade of “B” in Fixed Core, Specialization, and Project credit hours, and a minimum grade of “C” in Elective credit hours.

**Fixed Core (9 Credit hours)**

- CS/PSYC 6755 CS 8803-HCI, Human-Computer Interaction Foundations (must be taken during the first semester)
- PSYC 6023 Psychology Research Methods for HCI (4 credit hours with lab)
- CS/ID/LMC/PSYC 6753 Human-Computer Interaction – Professional Preparation and Practice (1 credit hour Fall of first year and 1 credit hour Fall of second year)

Students are expected to take CS 8803-HCI, CS/PSYC 6755 and PSYC 6023 during the same semester.

A minimum grade of “B” is required in each of the Fixed Core classes.

**Specializations**

**INTERACTIVE COMPUTING SPECIALIZATION (9 credit hours)**

**Software (3 credit hours):**

- CS 6300, Software Development Process
- CS 6452, Prototyping Interactive Systems
- CS 6456, Principles of User Interface Software
- CS 6457, Video Game Design
- CS 6465 Computational Journalism
- CS 7450, Information Visualization
CS 7470, Ubiquitous Computing  
CS 7497, Virtual Environments  
CS 7633, Human-Robot Interaction  
CS 8803-MAS, Special Topics: Mobile Apps and Services  

Design, Evaluation, and Cognitive Modeling (6 credit hours):  
CS 6010, Principles of Design  
CS 6150, Computing for Good  
CS 6440, Introduction to Health Informatics  
CS 6451, Introduction to Human-Centered Computing  
CS 6455, User Interface Design and Evaluation  
CS 6457, Video Game Design  
CS 6460, Educational Technology: Conceptual Foundations  
CS 6461, CS Education Research  
CS 6465 Computational Journalism  
CS 6470, Design of Online Communities  
CS 6474, Social Computing  

CS/INTA 6745, Information & Communication Technology: Global Development  
[Note: Course title may be changed per Committee.]  
CS 6763, Design of Environments  
CS 6770/LMC 6340, Mixed Reality Experience Design (offered every two years)  
CS 6795, Introduction to Cognitive Science  
CS 7450, Information Visualization  
CS 7460, Collaborative Computing  
CS 7465, Educational Technology Design and Evaluation  
CS 7632, Game AI  
CS 7633, Human-Robot Interaction  
CS/PSYC 7790, Cognitive Modeling  
CS 8803-CC, Computational Creativity  
CS 8803-DG, Special Topics: Design Games  
CS 8803-DV, Data Visualization Principles and Applications  
CS 8803-HEF, Special Topics: Healthcare Informatics  
CS 8803-HAR, Special Topics: Handheld Augmented Reality Game Studio  
CS 8803-HI, Personal Health Informatics  
CS 8803-IBI, Special Topics: Introduction to Bio Informatics  
CS 8803-VDA, Visual Data Analysis  
CS 8803-TD/INTA 8803, Technology & Poverty  
CS 8803-PCB, Ubiquitous Computing & Human Behavior  
CS 8903, Special Problems in Human-Computer Interaction  

A maximum of 3 hours of CS 8903 may count toward the Interactive Computing specialization.  

A minimum grade of “B” is required in each of the Interactive Computing Specialization classes.
DIGITAL MEDIA (DM) SPECIALIZATION (12 credit hours)

Required
One of the following four courses, preferably in the first year of study:

- LMC 6310, The Computer as an Expressive Medium
- LMC 6313, Principles of Interactive Design
- LMC 6399, Discovery and Invention in Digital Media
- LMC 8903, Special Problems in HCI
- LMC 6650, Project Studio (enrollment by permission of instructor).

(must be taken at least once, may be taken up to three times for degree credit)

Optional
Students may fulfill the rest of the required 12 credits with any other LMC 6000- or 8000-level course.

A maximum of 3 hours of LMC 8903 Special Problems in HCI may count toward the Digital Media specialization.

A minimum grade of “B” is required in each of the Digital Media Specialization classes.

INDUSTRIAL DESIGN SPECIALIZATION (12 credit hours)

Required (9 credit hours)
- ID 6100, Intro to ID Grad Studies
- ID 6101, Human-Centered Design
- ID 6401, Visualizing Interaction
- ID 6100, Intro to ID Grad Studies
- ID 6201, Grad Studio 2
- ID 6214, Strategic Design Language
- ID 6215, Service Design
- ID 6271, Healthcare Design of the Future
- ID 6420, Advanced Sketching
- ID 6509, Computing, Creativity and Design Cognition
- ID 6510, Design for Interaction
- ID 6515, Interface Prototyping
- ID 6763, Design of Interactive Environments
- ID 6800, Universal Design
- ID 6820, Web Design Accessibility

A minimum grade of “B” is required in each of the Industrial Design Specialization classes.
PSYCHOLOGY SPECIALIZATION (10 credit hours)

Required (7-4 credit hours):

PSYC 6022, Psychological Statistics for HCI (4 credit hours including lab, Fall or Spring)
PSYC 7101, Engineering Psychology I (3 credits)

One Two of the following courses (3-6 credit hours):

PSYC 6011, Cognitive Psychology
PSYC 6012, Social Psychology
PSYC 6013, Biopsychology
PSYC 6014, Sensation and Perception
PSYC 4010/6017, Human Abilities (PSYC 2020* or equivalent, prereq)
PSYC 6041, Topics in Cognitive Aging
PSYC 4270/6270, Psych Testing (PSYC 2020* or equivalent, prereq)
PSYC 4260/6060, Psych of Aging (no prereq)
PSYC 7101, Engineering Psychology I
PSYC 7102, Engineering Psychology II
PSYC 4050/8050, History & Systems (no prereq)

* Note: PSYC 2020 = Psychological Statistics, currently equivalent to PSYC 6022 Psychological Statistics for HCI, which is required for all Psych Track students.

A minimum grade of “B” is required in each of the Psychology Specialization classes.

Elective Courses

- 12 credit hours for Interactive Computing
- 9-12 credit hours for Digital Media
- 9 credit hours for Industrial Design
- 11 credit hours for Psychology

All Specialization courses may also be taken as part of the Elective courses in each of the four areas of specialization. However, for the Interactive Computing track, at least 9 credit hours of the Elective must be taken outside of the specialization. For the Psychology, Digital Media and Industrial Design tracks, at least 6 credit hours must be taken outside your specialization. A maximum of 3 credit hours of Special Problems in HCI (CS/ID/LCC/PSYC 8903) may count toward the Elective Courses.

Any Specialization course may be taken to fulfill an Elective course requirement for any of the four degree tracks. Other approved Electives appear in the list below.
For each area of specialization (track), a certain number of Elective credits must be taken outside of the area:

- Interactive Computing: at least 9 non-CS elective credits must be taken
- Industrial Design, Digital Media, and Psychology: at least 6 non-track elective credits must be taken

A maximum of 3 credit hours of Special Problems in HCI (CS/ID/LMC/PSYC 8903) may count toward the Elective course requirement.

A minimum grade of “C” is required in each of the Elective classes used to satisfy degree requirements.

**Aerospace Engineering**
AE 6551, Cognitive Engineering
AE 6721, Evaluation of Human-Integrated Systems

**Computer Science**
CS 6010, Principles of Design
CS 6150, Computing for Good
CS 6300, Software Development Process
CS 6440, Introduction to Healthcare Informatics
CS 6451, Introduction to Human-Centered Computing
CS 6452, Prototyping Interactive Systems
CS 6455, User Interface Design and Evaluation
CS 6456, Principles of User Interface Software
CS 6457, Video Game Design
CS 6460, Educational Technology: Conceptual Foundations
CS 6465 Computational Journalism
CS 6470, Design of Online Communities
CS 6474, Social Computing
CS/INTA 6745, Information & Communication Technology: Global Development
CS/ID 6763, Design of Interactive Environments
CS 6770/LMC 6340, Mixed Reality Design

CS 6795, Introduction to Cognitive Science
CS 7450, Information Visualization
CS 7460, Collaborative Computing
CS 7465 Computational Journalism
CS 7465, Educational Technology Design and Evaluation
CS 7470, Ubiquitous Computing
CS 7497 Virtual Environments
CS 7632, Game AI
CS 7633, Human-Robot Interaction
CS 7610, Modeling and Design
CS/PSYC 7790, Cognitive Modeling
CS 8803-ANI, Special Topics: Animal Interaction
CS 8803-CC, Computational Creativity
CS 8803-DG Special Topics: Design Games
CS 8803-HEF Special Topics: Healthcare Informatics
CS 8803-HAR Special Topics: Handheld Augmented Reality Game Studio
CS 8803-HI, Personal Health Informatics
CS 8803-IBI Special Topics: Introduction to Bio Informatics
CS 8803-MAS, Special Topics: Mobile Apps and Services
CS 8803-PCB, Ubiquitous Computing & Human Behavior
CS 8803, Special Topics: Adaptive Personalized Information Environments
Interaction (variable hours)
CS 8803-TD/INTA 8803, Technology & Poverty
CS 8803-VDA, Visual Data Analysis
CS 8903 Special Problems in Human-Computer Interaction

International Affairs
INTA 8803, Special Topics: Computers, Communications, and International Development
CS/INTA 6745, Information & Communication Technology: Global Development
INTA 8803/CS 8803-TD, Technology & Poverty

Industrial Design
ID 6100, Intro to ID Grad Studies
ID 6101, Human Centered Design
ID 6200, Graduate Studio I
ID 6201, Grad Studio 2
ID 6214, Strategic Design Language
ID 6215, Service Design
ID 6271 Healthcare Design of the Future
ID 6401, Visualizing Interaction
ID 6420, Advanced Sketching
ID 6509, Computing, Creativity, and Design Cognition
ID 6510, Design for Interaction
ID 6515, Interface Prototyping
ID 6763/CS 6763, Design of Interactive Environments
ID 6800, Advanced Universal Design
ID 6820, Web Design Usability and Accessibility
ID 8903, Special Problems in Human-Computer Interaction

Industrial and Systems Engineering
ISYE 6413, Design and Analysis of Experiments
ISYE 6414, Regression Analysis
ISYE 6739, Basic Statistical Methods
ISYE 6772, Managing the Resources of Technological Firms
ISYE 7210, Real-Time Interactive Simulations
Literature, Media and Communication (Digital Media)
LMC 6215, Issues in Media Studies
LMC 6310, The Computer as an Expressive Medium
LMC 6311, Visual Culture and Design
LMC 6312, Design Technology and Representation
LMC 6313, Principles of Interactive Design
LMC 6314, Design of Networked Media
LMC 6315, Project Production
LMC 6316, Historical Approaches to Digital Media
LMC 6317, Interactive Fiction
LMC 6318, Experimental Media
LMC 6319, Intellectual Property Policy and Law
LMC 6325, Game Design and Analysis
LMC 6340/CS 6770, Mixed Reality Design
LMC 6399, Discovery and Invention in Digital Media
LMC 6650, Project Studio
LMC 6748, Social Justice, Critical Theory, and Philosophy of Design
LMC 8000, Proseminar in Media Theory
LMC 8001, Pro-Seminar in Digital Media Studies
LMC 8903, Special Problems in Human-Computer Interaction

Management of Technology (MOT)
MGT 6056, Electronic Commerce
MGT 6057, Business Process Analysis and Design
MGT 6059, Analysis of Emerging Technologies
MGT 6086, Entrepreneurial Finance and Private Equity
MGT 6111, Innovation; Entrepreneurial Behavior
MGT 6165, New Venture Creation
MGT 6326, Collaborative Product Development
MGT 6359, Business Strategies for Sustainability
MGT 6450, Project Management
MGT 6772, (K, TSA) Managing Resources of the Technological Firm
MGT-ME 6799, Legal Issues in Technology Transfer
MGT-ME-ECE-CHE-BMED 6789 Technology Ventures
MGT 8803, Big Data Analytics in Business

Music
MUSI 6001, Music Perception and Cognition
MUSI 6002, Interactive Music
MUSI 6003, Music Technology History and Repertoire
MUSI 6004, Technology Ensemble
MUSI 6103, Music Recording & Mixing
MUSI 6203, Project Studio in Music Technology
MUSI 7100, Music Technology Research Lab

Psychology
PSYC 6011, Cognitive Psychology (3 credit hours)
PSYC 6012, Social Psychology (3 credit hours)
PSYC 6014, Sensation and Perception (3 credit hours)
PSYC 6022, Psychological Statistics for HCI (4 credit hours including lab, Fall or Spring)
PSYC 6041, Topics in Cognitive Aging (3 credit hours)
PSYC 7101, Engineering Psychology I (3 credits hours)
PSYC 7102, Engineering Psychology II (3 credits)
PSYC 7104, Psychomotor and Cognitive Skills
PSYC/CS 7790 Cognitive Modeling
PSYC 8040, Seminar in Engineering Psychology
PSYC 8903, Special Problems in Human-Computer Interaction

Public Policy
PUBP 6111, Special Topics: The Internet and Public Policy
PUBP 6401, Science, Technology, and Public Policy

Non-credit seminars
Various seminars can be used as one way to fill out your schedule if you are required to carry a full course load (12 credits), but they cannot be used as credit toward your degree. Some of the available seminars include:
CS 8001-AHS, Aware Home Seminar
CS 8001-ELC, Electronic Learning Communities Seminar
CS 8001-GVU, GVU Brown Bag

Research Project (6 credit hours)
CS/ID/LMC/PSYC 6998, MS-HCI Project (repeatable, up to 6 credits)

Each student completes this requirement, under the supervision of a faculty member, typically during the last two semesters of their program. Students must submit a project proposal and a final report and present their work to program coordinators and other MS-HCI students late during the semester of graduation (as described in the MS-HCI Project Requirements document).

CS 6998, MS-HCI Project (repeatable; variable semester hours), or
ID 6998, MS-HCI Project (repeatable; variable semester hours), or
LMC 6998, MS-HCI Project (repeatable; variable semester hours), or
PSYC 6998, MS-HCI Project (repeatable; variable semester hours)

A minimum grade of “B” is required in the project course.

Seminar (2 credit hours as part of Fixed Core)
The MS-HCI professional preparation and practice course aims to prepare students for success in their studies and careers. It includes presentations by leading HCI practitioners concerning career choices and employment preparation and new developments in HCI-relevant domains, visits to corporate HCI labs in the Atlanta area, research presentations, skills tutorials, discussion of potential MS projects and “how to succeed” in graduate school and as a professional. Students take this seminar in the Fall semester of their first and second years of study.
CS 6753, Human-Computer Interaction – Professional Preparation and Practice (may be repeated for credit once), or
ID 6753, Human-Computer Interaction – Professional Preparation and Practice (may be repeated for credit once), or LMC 6753, Human-Computer Interaction – Professional Preparation and Practice (may be repeated for credit once), or
PSYC 6753, Human-Computer Interaction – Professional Preparation and Practice (may be repeated for credit once)

A minimum grade of “B” is required in the seminar course.

Other expectations
All students are expected to complete a corporate internship in an HCI-relevant position between their second and third semesters.

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

New Course – Tabled
MGT 6754: Business Fundamentals for Analytics (3-0-3)

Note: The Committee requested that this proposal be discussed more thoroughly and be brought back for possible reconsideration. The Committee was unclear as to the need for the course since it appears the content would remain the same, just the name would change for use in programs where the different title might be more descriptive for the purposes of that particular program. Committee members were not comfortable having the same content carry different titles, yet be cross-listed with the existing course.

7. A motion was made to approve a request from the College of Business, the Schools of Computational Science & Engineering, and Industrial & Systems Engineering for a degree modification. The motion was seconded and approved.

Degree modification – APPROVED with edits
Master of Science in Analytics

Overview
(1) When the Master of Science in Analytics degree was created, there were a couple of new required courses that we initially offered as 8803s. Two of those courses have now been given permanent course numbers. The first purpose of this modification is to update the program to reflect those new course numbers.

The changes are:
• Replace “ISYE 8803 Introduction to Analytical Models” with the permanent course number/name “ISYE 6501 Analytics Models and Methods”
• Replace “MGT 8803 Introduction to Business for Analytics” with the permanent course number/name “MGT 6754 Business Fundamentals for Analytics”

Note: Since the proposal for a new course, MGT 6754 was tabled, this part of the degree modification has to be removed. The course can remain an 8803 until the issues with the course proposals are addressed.

(2) The Catalog page showing the course requirements is confusing, and contains incomplete lists of elective options. The second purpose of this modification is to update the Catalog requirements page. (Note that the page for the online delivery is fine; it’s the on-campus “Requirements” tab that needs to be updated.)

The changes are:
• Group the core courses to make the structure more clear
• Correct the locations of the footnotes
• Correct the number of the second required MGT course (hasn’t been updated from Proposal 5073) effective 2017-18 catalog year
• Clarify the available statistics and operations research electives

Curriculum

THERE ARE TWO PAGES BEING CHANGED, ONE FOR ON-CAMPUS DELIVERY AND ONE FOR ONLINE DELIVERY

On-campus delivery

See http://catalog.gatech.edu/programs/analytics-ms/#requirementstext. Please note that the change from MGT 8803 Big Data Analytics in Business to MGT 6203 Data Analytics in Business was already made in Proposal 5073 (approved last year), but the change hasn’t shown up on the web site yet; it’s included again below.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Required Courses</strong></td>
<td></td>
</tr>
<tr>
<td>CSE 6040</td>
<td>Computing for Data Analy</td>
<td>3</td>
</tr>
<tr>
<td>MGT 8803</td>
<td>Introduction to Business for Analytics</td>
<td>3</td>
</tr>
<tr>
<td>ISYE 8803</td>
<td>Introduction to Analytical Models</td>
<td>3</td>
</tr>
<tr>
<td>CSE 6242</td>
<td>Data &amp; Visual Analytics</td>
<td>3</td>
</tr>
<tr>
<td>MGT 8803</td>
<td>Big Data Analytics in Business</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Introductory Core Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>CSE 6040</td>
<td>Computing for Data Analy</td>
<td>3</td>
</tr>
<tr>
<td>Code</td>
<td>Title</td>
<td>Credit Hours</td>
</tr>
<tr>
<td>-----------</td>
<td>---------------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>ISYE 6501</td>
<td>Analytics Models and Methods(^1)</td>
<td>3</td>
</tr>
<tr>
<td>MGT 6754</td>
<td>Business Fundamentals for Analytics(^1)</td>
<td>3</td>
</tr>
</tbody>
</table>

### Advanced Core Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSE 6242</td>
<td>Data &amp; Visual Analytics</td>
<td>3</td>
</tr>
<tr>
<td>MGT 6203</td>
<td>Data Analytics in Business</td>
<td>3</td>
</tr>
</tbody>
</table>

### Statistics

Select two of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSE/ISYE 6740</td>
<td>Computational Data Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ISYE 6402</td>
<td>Time Series Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ISYE 6414</td>
<td>Regression Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ISYE 7406</td>
<td>Data Mining &amp; Stat Learn</td>
<td>3</td>
</tr>
</tbody>
</table>

### Operations Research

Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISYE 6644</td>
<td>Simulation</td>
<td>3</td>
</tr>
<tr>
<td>ISYE 6650</td>
<td>Probabilistic Models</td>
<td>3</td>
</tr>
<tr>
<td>ISYE 6669</td>
<td>Deterministic Optimization</td>
<td>3</td>
</tr>
</tbody>
</table>

### Elective Courses

Select 6-15 credit hours. \(^2\)

### Applied Analytics Practicum

Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSE 8803</td>
<td>Applied Practicum I &amp; II</td>
<td>3</td>
</tr>
<tr>
<td>ISYE 8803</td>
<td>Applied Practicum I &amp; II</td>
<td>3</td>
</tr>
<tr>
<td>MGT 8803</td>
<td>Applied Practicum I &amp; II</td>
<td>3</td>
</tr>
</tbody>
</table>

### Total Credit Hours

<table>
<thead>
<tr>
<th>Total Credit Hours</th>
<th>36</th>
</tr>
</thead>
</table>

### Course List

\(^1\) Students with sufficient background in this area may be allowed to substitute additional elective hours.

\(^2\) See [http://analytics.gatech.edu](http://analytics.gatech.edu) for the full list.
Online delivery

See http://catalog.gatech.edu/programs/analytics-ms/#onlinetext

<table>
<thead>
<tr>
<th>Introductory Core Requirements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CSE 6040</strong> Computing for Data Analy ¹</td>
<td>3</td>
</tr>
<tr>
<td><strong>ISYE 8803 6501</strong> Special Topics Analytics Models and Methods ¹</td>
<td>3</td>
</tr>
<tr>
<td><strong>MGT 8803</strong> Special Topics in Mgt ¹</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Advanced Core Requirements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CSE 6242</strong> Data &amp; Visual Analytics</td>
<td>3</td>
</tr>
<tr>
<td><strong>MGT 6203</strong> DataAnalytics Business</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Statistics Electives</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Select two courses from the approved list ²</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operations Research Elective</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Select one course from the approved list ²</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elective Courses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Select 6-15 credit hours ³</td>
<td>6-15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Applied Analytics Practicum</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Select one of the following:</td>
<td></td>
</tr>
<tr>
<td><strong>CSE 6748</strong> Appld Analytics Pract</td>
<td></td>
</tr>
<tr>
<td><strong>ISYE 6748</strong> Appld Analytics Pract</td>
<td></td>
</tr>
<tr>
<td><strong>MGT 6748</strong> Appld Analytics Pract</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Credit Hours</th>
<th>36</th>
</tr>
</thead>
</table>

¹ Students with sufficient background in this area may be allowed to substitute additional elective hours.

² See http://omsanalytics.gatech.edu for the full list.

³ For the 6-15 semester hours of electives, students choose coursework to satisfy at least one of the three track requirements in analytical tools, business analytics, and computational data analytics. Students are encouraged to choose electives to develop specific expertise within an area of analytics where they have career interests. Courses available to students either as core requirements or elective options include topics such as forecasting, regression analysis, data mining, statistical learning, machine learning, computational data analytics, design of experiments, simulation, optimization, probabilistic models, data analytics, visualization, databases, text mining, algorithms, high performance computing, etc. See http://omsanalytics.gatech.edu for the full list.

**Note:** Since MGT 6754: Business Fundamentals for Analytics was tabled, then replacing the MGT 8803 version will still remain as is.
8. A motion was made to table a request from the Department of Biomedical Engineering for a new course. The motion was seconded and approved.

**New Course – TABLED**
**BMED 8739: Medical Robotics (3-0-3)**

**Note:** It was requested that some follow-up with the IUCC is needed to address the pre-requisites. It was also noted that the grading scheme needs to be reconsidered to more clearly reflect the differences in expectations for graduate students relative to undergraduate students.

9. A motion was made to approve a request from the School of Aerospace Engineering for a new course. The motion was seconded and approved.

**New Course – APPROVED**
**AE 8002: AE Graduate Seminar (1-0-1)**

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

**Degree modification – APPROVED**
**Master of Business Administration**

**Brief Summary of Proposal**
This proposal is a degree modification that will provide MD students from Morehouse School of Medicine an opportunity to pursue a track within our existing MBA program. Similar to MS/PhD students in the Colleges of Engineering and Computing, MD students at Morehouse School of Medicine can be admitted to our MBA program, take 39 credit hours at Georgia Tech and transfer 15 credits of specific courses from the MD program at Morehouse School of Medicine, to complete the 54-credit hour MBA curriculum at Georgia Tech. The 39 credit hours at Georgia Tech will include the standard core and electives of the MBA program. The 15 credit hours of MD courses that will be counted towards the MBA degree can be viewed as elective courses in the MBA program that focus on healthcare, patient and practice management. The content of the transferred MD courses includes topics such as the health care system, primary care practice, ethics, human behavior, communication skills, doctor-patient relationship, patient interviewing skills and psychological assessments. Thus, this modification to the existing MBA degree is about allowing 15 hours of very specific coursework from the MD program at Morehouse School of Medicine to transfer. The specific courses that can be transferred are outlined in the proposal.

A student who enters this MBA track at Georgia Tech and then does not complete the MD at Morehouse School of Medicine can still receive the MBA degree provided that the courses approved for transfer were in fact completed and transferred.
Overview
The Scheller College of Business is proposing to offer an MBA track to selected students enrolled in the MD program at Morehouse School of Medicine. We believe that the ability to earn an MBA will be very attractive to MD students who wish to pursue a healthcare management career or engage in bio-technology focused entrepreneurial activities, in addition to the practice of medicine. This will also help the Scheller College attract high-caliber students with deep medical expertise into its MBA program. It will also make the MD program at Morehouse School of Medicine more attractive to prospective students. Other premier business schools such as at Harvard, Duke, Emory and New York University offer similar dual MD/MBA options.

It should be noted that the MD and the MBA degrees are currently offered by Morehouse School of Medicine and Georgia Tech respectively, and this proposal will not create any new degrees at either University.

The proposed MBA track is structured identical to the MBA track for MS/PhD students in the Colleges of Engineering and Computing approved in 2016 by Georgia Tech. [Note: The difference is that the MBA could be awarded if the credits transfer even if the student does not complete the MD degree at Morehouse SOM. This point was raised by the Committee.]

In summary, the MBA track will allow selected MD students at Morehouse School of Medicine to count some MD courses towards their MBA degree and complete the requirements of the MBA by taking 39 credits (instead of the regular 54 credits) of coursework in the Scheller College of Business. With a higher course load per semester than those who pursue a single degree, students can complete both the MD and the MBA degrees in five years.

During the first three years, students will take MD courses at Morehouse School of Medicine. During the fourth year, students will take MBA courses at the Scheller College of Business at Georgia Tech. During their fifth year, students will primarily take courses at Morehouse School of Medicine and may take a few courses at Georgia Tech to complete the MBA requirements.

Rationale
There is a critical need for physician leaders who are educated in both the medical and management disciplines to transform the healthcare system in the United States. We envision that such physician leaders will take leadership positions in:

- Healthcare companies, hospitals, insurance companies and other companies in the healthcare system
- Entrepreneurial ventures that are focused on bio-technology, bio-engineering, bio-informatics and other related areas
- Government and policy organizations that focus on public policy related to healthcare

We believe that the Scheller College is uniquely qualified to provide management education to such physician leaders. The Scheller College
focuses at the intersection of business and technology, and can bring insights on the transformative role of technology in healthcare. The Scheller College is also located within the Georgia Tech ecosystem that brings together the Advanced Technology Development Center (ATDC), the highly ranked Wallace H. Coulter Department of Biomedical Engineering, Technology Square with its corporate innovation centers, and the Global Learning Center for distance education. This ecosystem is unparalleled in this region.

**Benefit to participants**
The proposed MBA track will benefit students and participating entities in multiple ways:

**For MD Students at Morehouse School of Medicine**
- Enable them to develop their business acumen, leadership, strategic thinking and communication skills so that they can eventually progress to leadership roles in healthcare companies, insurance companies and government organizations.
- Become more effective medical practitioners by developing their ability to manage their medical practice as a business
- Enable them to effectively participate in healthcare-focused entrepreneurial ventures
- Compete effectively in the technology enabled healthcare ecosystem of the future
- Complete an MBA while they are enrolled in the MD program at Morehouse School of Medicine without having to interrupt their careers at a later time.

**For the Scheller College of Business**
- Attract students of exceptional caliber with deep medical expertise into the MBA program
- Create business leaders who are more attractive to employers in the healthcare industry
- Support its current differentiation at the “intersection of business and technology”

**For Morehouse School of Medicine**
- Increase the attractiveness of their MD program for prospective students, especially those who wish to pursue careers at the intersection of medicine and business
- Provide an additional option to their MD students that is likely to be popular

**Eligible MD Students**
The MBA track will be available to MD students enrolled in the Morehouse School of Medicine. The proposed MBA track may be extended in the future to students in other graduate programs at the Morehouse School of Medicine and MD students in other medical schools in the region.
Curriculum

Current MBA program structure
The MBA program at the Scheller College of Business requires 54 credits as shown below. The MBA program requires 21 credits of required core courses in the functional areas of business (e.g. Accounting, Finance, Marketing, Operations, etc.) and 33 credits of elective courses.

Table 1: Current MBA program structure

<table>
<thead>
<tr>
<th>Course Type</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBA required core courses</td>
<td>21</td>
</tr>
<tr>
<td>Electives</td>
<td>33</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>54</strong></td>
</tr>
</tbody>
</table>

Table 2: Current MBA Program Requirements

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td></td>
</tr>
<tr>
<td>Financial and Managerial Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>Analytical Tools for Decision Support</td>
<td>1.5</td>
</tr>
<tr>
<td>Leading People and Organizations</td>
<td>1.5</td>
</tr>
<tr>
<td>Principles of Finance</td>
<td>1.5</td>
</tr>
<tr>
<td>Managerial Economics</td>
<td>1.5</td>
</tr>
<tr>
<td>Operations Management</td>
<td>1.5</td>
</tr>
<tr>
<td>Managing Information Resources</td>
<td>1.5</td>
</tr>
<tr>
<td>Marketing Management</td>
<td>1.5</td>
</tr>
<tr>
<td>Business Communications</td>
<td>1.5</td>
</tr>
<tr>
<td>Spring</td>
<td></td>
</tr>
<tr>
<td>Strategic Management</td>
<td>3</td>
</tr>
<tr>
<td>Legal and Ethical Considerations</td>
<td>1.5</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td>Fall</td>
<td></td>
</tr>
<tr>
<td>Leadership Assessment Workshop</td>
<td>1.5</td>
</tr>
<tr>
<td>International Elective</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td>Spring</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>54</strong></td>
</tr>
</tbody>
</table>

Table 2 shows the sequence of courses required for the full-time MBA program. The fulltime MBA program is 2 years in duration (4 semesters excluding summer). The courses that are named below are the required core courses in the MBA program. The required core courses are completed in the Fall and Spring of Year 1 of the program, while students take elective courses during the Spring semester of Year 1, and the Fall and
Spring semesters of Year 2. The Leadership Course (MGT 6510 1.5 credits) is taken in the Fall semester of the second year. Core courses in the MBA program are 1.5 credits or 3 credits each. Courses with 1.5 credits are half-semester in duration. Core courses with 3 credits are full semester courses. Some elective courses are cross-listed with other academic units at Georgia Tech.

Proposed MBA Track requirements for MD students in Morehouse School of Medicine

There are no changes to the MD program requirements at Morehouse School of Medicine.

There are also no changes in the MBA program structure. However, MD students at Morehouse School of Medicine also enrolled in the MBA program will be able to count 15 credits of courses they have taken to fulfill the MD degree requirements towards the MBA. Since these 15 credits will be counted for both the MD and the MBA, students will require 39 credits (instead of 54 credits) in the Scheller College of Business to complete the MBA.

Table 3 shows the structure of the proposed MBA degree requirements for MD students enrolled at Morehouse School of Medicine

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBA Core courses</td>
<td>21 credits</td>
</tr>
<tr>
<td>MBA Electives</td>
<td>18 credits</td>
</tr>
<tr>
<td>MD Courses counted towards MBA Electives</td>
<td>15 credits</td>
</tr>
<tr>
<td><strong>Total Credits for MBA</strong></td>
<td>54 credits</td>
</tr>
<tr>
<td>Total Credits for MBA beyond MD requirements</td>
<td>39 credits</td>
</tr>
</tbody>
</table>

MD Courses Counted Towards the MBA (15 credits)
The following two MD courses at Morehouse School of Medicine will count towards the MBA degree. Description of the two courses are in Appendix A.2

MEDI 511 Fundamentals of Medicine 1 (7 credit hours)

MEDI 511 introduces students to the health care system, primary care practice, core clinical skills, ethics, aspects of normal human behavior, communication skills, and principles of biostatistics and epidemiology.

MEDI 611 Fundamentals of Medicine 2 (8 credit hours)

2 The course descriptions are provided by Dr. Martha Elks MD, PhD, Senior Associate Dean for Educational Affairs, Professor and Chair of Medical Education, Morehouse School of Medicine.
MEDI 611 builds on the understanding of the doctor-patient relationship and interviewing skills. The human values component emphasizes cultural competence, cultural appreciation, domestic and other violence, and personal and family impacts of death. The psychopathology component introduces students to psychiatric and psychological assessment, to the most common psychiatric disorders and emergencies, to crisis intervention, and to psychopharmacology.

**Rationale for overlapping course requirements**

While there are no changes in the requirements for the MD and MBA degrees, there are 15 credits of MD courses that are counted towards the MBA degree. The rationale for the overlapping requirements is as follows:

- **We envision that MD/MBA students will take leadership positions in healthcare management, healthcare entrepreneurship and healthcare policy.** For the MBA program, 15 credits of MD courses will provide the technical depth and medical expertise necessary for those who wish to pursue such careers.
- **The two MD courses (MEDI 511 and MEDI 611) counted towards the MBA focus on the practice of medicine and sensitize medical students to the social and cultural problems infringing on patients.** The two courses were selected by the Senior Associate Dean at Morehouse School of Medicine, Dr. Martha Elks, as being most appropriate for inclusion in an MBA degree.
- **MD/MBA degree students will be required to complete 39 credits of additional coursework beyond the MD requirements to obtain the MBA.** This is significantly more than the credit requirements of other Masters programs at Georgia Tech. Most Masters Programs at Georgia Tech require 30 credits.
- **The design of the MD/MBA program allows a MD student to complete both degrees in 5 years (one additional year beyond that required for the MD degree).**
- **The design of the MD/MBA program is identical to the MS-PhD/MBA program approved by Georgia Tech in 2016.**

**TABLE 4: Sequence of Courses to Complete the MBA in addition to MD requirements**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Courses</th>
<th>GT Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years 1 through 3</td>
<td>Students take courses only at Morehouse School of Medicine in the MD program.</td>
<td>0 credits</td>
</tr>
<tr>
<td>4th year Fall Semester</td>
<td>MBA Core courses</td>
<td>15 credits</td>
</tr>
<tr>
<td></td>
<td>MGT 6510 Leadership Development (Evening section)</td>
<td>1.5 credits</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>16.5 credits</strong></td>
</tr>
<tr>
<td>4th year Spring Semester</td>
<td>MBA Core courses</td>
<td>4.5 credits</td>
</tr>
<tr>
<td></td>
<td>MBA Electives</td>
<td>12 credits</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>16.5 credits</strong></td>
</tr>
<tr>
<td>4th Year Summer Semester</td>
<td>MBA Electives (Evening sections)</td>
<td>6 credits</td>
</tr>
</tbody>
</table>
### Sequence of courses

The following is a course schedule that will allow MD students to complete the MBA requirements in one additional year (3 semesters) beyond that required to complete the MD degree. The course schedule requires a heavy course load to complete both programs in 5 years. Please note that this is only a sample program layout. Students may choose to complete the required 39 credits in other ways approved by the MBA committee (or a designated official at the Scheller College of Business).

### Admission into the MBA program

Students will be first admitted into the MD program at Morehouse School of Medicine through the regular admission process. After admission into the MD program, they will need to apply to the MBA program. We will accept MCAT and GRE (instead of GMAT) scores for admission. Students admitted into the MD program at Morehouse School of Medicine can apply at any time prior to the end of their second year in the MD program (application deadline is May 15th for Fall admission to the MBA program). The MBA admission process will include an in-person interview. Admission to the MBA program is competitive and will also depend on academic background, career goals, fit with the MBA program, application essays, and leadership potential. The Scheller College of Business MBA committee (or admission official designated by them) will have the final say in admission decisions for the MBA program.

### Student Status and Tuition

This section relates to student tuition and is not relevant for approval by the Institute Graduate Curriculum Committee. This is for informational purposes only.

During the first 3 years of their MD program, students will be enrolled at Morehouse School of Medicine and will not be enrolled at Georgia Tech. During the 4th year, students will only be enrolled at Georgia Tech (not enrolled at Morehouse School of Medicine) and will pay the applicable MBA tuition to Georgia Tech. During the fifth year, if students are enrolled at Georgia Tech to complete the MBA requirements, tuition and mandatory fees will be assessed by Georgia Tech based on the number of credits taken at Georgia Tech at the applicable full-time MBA per credit hour rate.

Students who receive financial aid and are enrolled in both institutions in the same term:

The Georgia Tech bursar’s office recommends that if it is necessary for 5th year students who receive financial aid to enroll in courses at both Morehouse School of Medicine and Georgia Tech in the same term, Morehouse School of Medicine will be designated as the home institution. Morehouse School of Medicine will work with the Georgia Tech Office of Scholarships and Financial Aid to determine a combined cost of attendance for the term. Students will be
assessed as normal by Georgia Tech at the applicable MBA tuition rates and mandatory fees only for the hours enrolled at Georgia Tech. Morehouse will then be billed for those charges under a third party billing arrangement. Prior to the Georgia Tech fee deadline for the term, the Bursar’s Office must be provided with a list of the students that should be third party billed to Morehouse. Students not covered under this third party agreement are responsible for paying Georgia Tech directly for the applicable MBA program tuition and fees.

**Student Petitions**

1. A motion was made to deny a request to admit a student without the equivalent to a 4-year degree. The motion was seconded and approved.

2. A motion was made to deny a petition for a term withdrawal. The motion was seconded and approved.

3. A motion was made to approve Subcommittee actions on petitions in the following areas. The motion was seconded and approved.

   (All approved except where noted.) Petitions reviewed from 2/3/17 to 4/6/17:
   10- Late registration for the current term
   3- Term withdrawal (1 Denied)
   3- Change grade mode (1 Denied)
   3- Full graduate standing
   1- Registration hour adjustment
   1- Seven-year rule waiver
   5- Readmit after 1st drop
   2- One-hour rule waiver
   2- Six-year rule waiver
   2- Cancel registration for current term
   1- Selective withdrawal
   8- Adjust course registration to correct CRN
   3- Reinstate course after it was withdrawn for the current term
   1- Two-year rule waiver (BS/MS program)
   2- Enrollment waiver
   2- Graduate without GPA (doctoral student transferred to Tech with advisor)
   1- Use excess pass-fail hours toward degree
   1- Double count undergraduate courses toward M.S. degree

Adjourned,

Reta Pikowsky,
Secretary