

Institute Graduate Curriculum Committee

Academic Faculty Senate

Tuesday, February 14, 2017

3:00-5:00 PM

Student Center Theatre

Action Items, Minutes

- Presented by:
 - Dr. Victor Breedveld, CHBE, Chair
- Action Items
- Minutes for Approval

Action Items from the December 1, 2016 Minutes

Scheller College of Business

- Degree Modification
 - Master of Business Administration
 - The MBA graduate degree requires the completion of MGT 6510 Leadership Development Workshop (1.5 credits). Full time MBA students register for MGT 6510 in the Fall semester of their second year. To complete some preparatory work in the prior semester related to their summer internships, full time MBA students also register for a zero-credit course MGT 6510P (Leadership Development Prep - 0 credits) in the Spring semester of the first year.
 - Evening MBA students complete the work for MGT 6510 (Leadership Development Workshop) during a single semester and do not need the MGT 6510P (0 credit) course to do preparatory work in an earlier semester.
 - **We are requesting the IGCC to remove MGT 6510P as a requirement for Evening MBA students. Please note that MGT 6510P is a zero-credit course and this will not affect the credit hour requirements of the MBA degree**

School of Interactive Computing

- New Course
 - CS 6461: Computing Education Research 3-0-3

Action Items from the December 1, 2016 Minutes

School of Building Construction

- Degree Modification
 - Master of Science in Building Construction and Facility Management
 - The School of Building Construction is requesting to **modify the MSBCFM curriculum, from four tracks (not appearing in the transcripts), 36 credit hours** (12 courses on non-thesis option, or eight courses on thesis option), **to two concentrations (appearing in the transcripts), 30 credit hours** (10 courses on non-thesis option, or eight courses on thesis option).
 - In the non-thesis option, add one new three credit hour elective course and one new three credit hour capstone project course for both concentrations.
 - In the thesis option, reduce the required thesis hours from 12 to 6 and require one research methods course.
 - **The reason for the change is based on feedback from the 2016 APR report, the external 2016 Facility Management Accreditation Commission (FMAC) accreditation report, and the 2015-2020 Strategic Operational Plan.**
 - Courses in the existing Residential Construction Development Track will be covered under the new proposed Master of Real Estate Development and will be moved to this degree.

Action Items from the December 1, 2016 Minutes

School of Building Construction

- New Courses
 - BC 6005: Technology Applications in the Construction Industry 3-0-3
 - BC 6850: Building Construction and Facility Management Capstone 2-3-3

Action Items from the January 12, 2017 Minutes

School of Biological Sciences

- New Course
 - BIOL 8744: Microbial Symbiosis & Microbiomes 3-0-3

Action Items from the February 2, 2017 Minutes

School of Electrical and Computer Engineering

- New Certificate
 - Certificate in BioRobotics
 - The BioRobotics Certificate is a result of the National Science Foundation (NSF) Research Traineeship (NRT) initiative in Accessibility, Rehabilitation and Movement Science (ARMS), an interdisciplinary traineeship program in human-centered robotics at Georgia Institute of Technology.
 - It has the potential to transform graduate education. It will be engaging as it offers students challenging interdisciplinary experiences and comprehensive knowledge. Students will view this certificate as value added to their graduate education.
 - **The objective of this certificate program is to expand opportunities for students in the emerging field of robotics.**
 - The BioRobotics Certificate program will positively increase the reputation and positioning of Georgia Institute of Technology as a continued leader in the robotics education field

Action Items from the February 2, 2017 Minutes

School of Electrical and Computer Engineering

New Certificate

- Certificate in BioRobotics, continued
 - The BioRobotics Certificate requires four courses drawn from the following lists (all are existing courses and no pre-requisites are required):

Curriculum

- **Two Required Robotics Courses (6 credit hours):**
 - ECE/BMED/ME 7785: Introduction to Robotics Research—this course familiarizes students with the core areas of robotics: mechanics, control, perception, artificial intelligence and human-robot interaction. All Robotics Ph.D. students must take the foundational course as part of their curriculum.
 - ECE/BMED/ME 8750: Multidisciplinary Robotics Research—this is a multidisciplinary research course in which research projects are proposed by students and supervised by two robotics faculty from different schools. This is one of the foundational courses required by all Robotics Ph.D. students.

Action Items from the February 2, 2017 Minutes

School of Electrical and Computer Engineering

- New Certificate
 - Certificate in BioRobotics, continued
 - **Two Required Elective Courses (6 credit hours):**
 - ECE/PHIL 6710: Ethics of Biotechnology and Bioengineering Research—this course examines the ethics of biotechnological research, with a special focus on research ethics, healthcare and robotics. This course also satisfies the in-person RCR training requirement for doctoral students.
 - ECE/BMED 8813: Interfacing Engineering Technology and Rehabilitation—this course introduces students to the emerging trends in rehabilitation technologies; its lectures and laboratory instruction help students develop skills in adopting objective criteria for evaluation emerging technologies with alternative methods.
 - APPH 6231: Human Motor Control—this course examines selected motor control problems that the nervous system faces in the process of managing this mechanical complexity
 - APPH 6232: Locomotion Neuromechanic—this course introduces topics on the biomechanical and neural aspects of the control of limbed locomotion and movement.

Action Items from the February 2, 2017 Minutes

School of Electrical and Computer Engineering

- New Certificate
 - Certificate in BioRobotics, continued
 - **Two Required Elective Courses (6 credit hours):**
 - APPH 6236: Neuromuscular Physiology—this course discusses the application of current experimental techniques in human studies in vivo.
 - APPH 6400: Human Neuroanatomy—this course teaches the anatomical makeup of the human nervous system. It closely examines details of central and peripheral neuroanatomy with links to functions; comparisons with non-human vertebrate neuroanatomy will be made.
 - APPH/ME 6746: Rehabilitative Engineering—this course allows students to participate in rehabilitation engineering as practiced in the assistive technology industry.

Action Items from the February 2, 2017 Minutes

School of Industrial Systems and Engineering

- New Course
 - ISYE 6501: Introduction to Analytics Modeling 3-0-3
 - The School of Industrial Systems and Engineering reviewed the course and determined a more appropriate title for the course *after the IGCC meeting*.
 - The School has proposed to update the course title to **Analytics Models and Methods with a transcript title of "ANALYTICS MODELS&METHODS."**
 - The School was notified that the IGCC would need to review and approve of the change. The NCP and syllabus (except the course title change) will remain the same.

Action Items and Minutes

- Move to approve all action items.
- Move to approve Minutes from:
 - December 1, 2016
 - January 12, 2017
 - February 2, 2017