

Institute Undergraduate Curriculum Committee
Academic Matters, Appeals, & Petitions (Full Committee)
Minutes

Tuesday, February 7, 2017

Present: Mayor (ME), Pikowsky (Registrar), Scott (CEE), Economou (CoD-ARCH), Fenton (PHYS), Goodisman (BIOS-BIOL), Millard-Stafford (BIOS-APPH), Mudrinich (IUCC Student Representative), Parsons (CoB), Potts (Vice Provost), Shepler (Faculty Executive Board Liaison), Shook (ML), Smith (ME), Stasko (CoC-IC), Wilkinson (Chem & Biochem), Xu (CoC-CS), Yaszek (LMC)

Visitors: Hodges (Registrar), Manchester (MSE), Pearl (CAS), Thompson (Naval Science), Woodall (INTA), Boothe-Miller (CEE), Realff (MSE), Bramblett (IR/EDM/AE), Balsam (Secretary of Faculty), Toktay (CoB)

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.

Note: All votes are unanimous unless specifically noted otherwise.

Administrative Items:

1. Proposal 5037 submitted by the School of Materials Science and Engineering included a list of courses that were requested to be deactivated. There was a misunderstanding of MSE 4022 appearing to be on the list, but it was actually not a course that was meant to be deactivated. The course has been updated in Banner and the September 06, 2016 minutes were adjusted accordingly.
2. Dr. David Scott (Chair of Gen Ed Subcommittee) presented the meeting Minutes from the Gen Ed Subcommittee meeting on November 9, 2016. These minutes can be found under Proposal 5205 on the ICC site.

- A motion was made to approve the action items as recommended by the IUCC General Education Subcommittee. The motion was seconded and approved.

Academic Matters:

1. A motion was made to *approve* a request from the School of Materials Science and Engineering for a pre-requisite modification. The motion was seconded and approved.

Pre-requisite Modification – APPROVED **MSE 3005: Mechanical Behavior-Materials**

Current:

((MSE 2001(minimum grade of D) and ME 2211(minimum grade of D))
OR
COE 3001(minimum grade of D)

Proposed:

MSE 2001(minimum grade of D) and
COE 3001(minimum grade of D)

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

New Course – APPROVED with edits **NS 4333: Fundamentals of Maneuver Warfare (3-0-3)**

Note: The Committee noted ambiguous language in regards to this course and the repeatability and equivalency components. It was determined the NCP should be updated as follows:

- Box #2 – Repeatability should be marked ‘NO’ instead of ‘YES’
- Box #9 – NS 3324 should be added here
- Box #14 – The sentences ‘Repeat credit for students who have completed NS 4323. Course is equivalent to NS 3324’ should be deleted as these items are addressed in Box #9.

The Committee also noted that the syllabus needed the following items to be updated in order to align with Georgia Tech rules and regulations:

- The Office of Disability statement should be added.
- The Institute absence policy should be added.
- The Academic Honor Code should be added.
- Learning outcomes should be specified.

- On page 2, the Committee suggested updating the language to read that the Professional Core Competencies will be “updated from time to time” instead of “New PCCs are still being developed.”

A motion was made to *approve* a request from the Department of Naval Sciences to deactivate a course. The motion was seconded and approved.

Deactivate Course – APPROVED
NS 4323: Amphibious Warfare

This course is replaced by NS 4333.

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

New Courses – TABLED

INTA 3040: Energy, Environment and Policy (3-0-3)
INTA 3232: Sustainable Global Cities – Tokyo (3-0-3)

Note: This item was tabled to allow the instructor the opportunity to teach the courses at least once at Georgia Tech under a special topics number. The courses have already been taught at another institution so having them taught once at Tech as special topics would be sufficient.

These courses originally requested to be approved with the Social Science attribute so they were heard by the Gen Ed Subcommittee. Dr. Amy D’Unger (HSOC/Gen Ed Subcommittee member) offered several suggestions as edits to the course NCP and syllabus. The Committee agreed that those edits should be made to the course documents before being proposed again.

There was discussion as to whether the courses in special topics format taught Summer 2017 could be used to meet minor requirements. It was pointed out that the minor guidelines allow for a limited number of special topics courses to be used. Depending upon the structure of the minor, the course could be used toward the minor with no petition required. The Registrar’s Office can work with the unit awarding the minor, as it always does, to adjust DegreeWorks to make sure the special topics course is used in the right place as allowed by the minor. If the use of the special topics course is outside what the minor would normally allow, students would have to petition the faculty or not use the course toward the minor.

4. A motion was made to *approve* a request from the School of Literature, Media and Communication for new courses. The motion was seconded and approved.

New Courses – APPROVED

ENGL 0989: Foundations for English Composition (3-0-3)
ENGL 0999: Support for English Composition (3-0-3)

Note: There were some corrections needed to the NCPs for these courses. On ENGL 0989 the co-requisite of ENGL 1101 was removed. It was noted that this course counts in registered hours for the student, but does not carry any academic credit. ENGL 0999 also counts as registered hours for the student but does not carry any academic credit. The courses are mandated by the Board of Regents under the Learning Support policy. Enrollment in these courses is typically very small, less than 15, so management of students who need to be in which combination of the support classes and ENGL 1101 can be handled manually for now.

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

New Courses – APPROVED with edits

CEE 4000: Global Engineering Leadership	(3-0-3)
CEE 4050: Infrastructure System Management	(3-0-3)
CEE 4450: Introduction to Petroleum Geomechanics	(3-0-3)

Note: The Committee noted the following items should be updated for CEE 4050 syllabus:

- Page 2 – the attendance policy should be revised specifically in regards to instructions not being repeated if there is an absence. The Committee noted there should be exceptions for Institute Approved Absences. The CETL syllabus template on their website provides examples of how these items can be handled.
- Page 2 – ISYE 3025 should be added as a pre-requisite to match the NCP.
- The Office of Disability Services statement should be added.
- Page 3 – the course evaluation should be updated to clarify the midterm/quiz grading component. This should likely need to be broken down into separate items, one to address the midterm exam and one to address the quiz.

The Committee noted the following items should be updated for CEE 4450 syllabus:

- Page 1 – This section needs to address how students will access the materials listed under Coursebook.
- Page 4 – The weekly topic discussion titled ‘instructors discretion’ should be updated to include language that captures the intent of those class sessions. It should be clarified to state that these class sessions are intended to be Discussion sessions wherein topics of interest to the class are explored through in-lecture discussions.

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

Degree Modification – APPROVED
Bachelor of Science in Civil Engineering

This vote was not unanimous. There were 14 votes to approve and 1 vote to abstain.

After CEE faculty review of current curriculum, changes were recommended by the faculty and CEE undergraduate curriculum committee. This request includes:

- removing CHBE 2110 (no longer offered at Tech) and replace with CHBE 2130
- modify current undergraduate program requirement notes for Technical Electives
- remove any ambiguity from notes

Curriculum

Major Requirements

Select one of the following: 3

[AE 1770](#) Intro to Engr Graphics

[CEE 1770](#) Intro to Engr Graphics

[ME 1770](#) Intro to Engr Graphics

[CEE 2040](#) Dynamics 2

[CEE 2300](#) Environmental Engr Prin 3

[CEE 3000](#) Civil Engr Systems 3

[CEE 3020](#) Civil Engr Materials 3

[CEE 3040](#) Fluid Mechanics 3

Select one of the following: 3

[CEE 3770](#) Statistics& Applications

[ISYE 3770](#) Statistics& Applications

[MATH 3670](#) Statistics and Applns

[CEE 4090](#) Capstone Design 3

College of Engineering Requirements

COE 3001	Deformable Bodies	3
Select one of the following:		3
CHBE 2130	Chem Engr. Thermo I	
ME 3322	Thermodynamics	
MSE 3001	Chemical Thermo-Material	
CE Breadth Electives		
Select three of the following:		9
CEE 3055	Structural Analysis	
CEE 4100	Construction Engr & Mgt	
CEE 4200	Hydraulic Engineering	
CEE 4300	Environmental Engr Sys	
CEE 4405	Geotechnical Engineering	
CEE 4600	Transportation Plan&Dsgn	
CEE 4200	Hydraulic Engineering	3
or CEE 4405	Geotechnical Engineering	
CE Technical Electives		
CE Electives ⁴		18
Approved Electives		
Approved Electives ⁵		6
Total Credit Hours		128

No pass-fail allowed, except for [CS 1171](#).

[CEE 4801](#) not allowed toward degree.

Students must earn at least a 2.0 average in all CEE courses.

¹ Students must complete an Ethics requirement from the following courses: [PHIL 3105](#), [PHIL 3109](#), or [PHIL 3127](#).

² If [PHYS 2231](#) is taken, extra credit hour goes to Free Electives.

³ Minimum grade of C is required.

⁴ Any 3000-level or higher CEE course, with the exception of [CEE 4801](#), [CEE 8811](#), and [CEE 8812](#). Maximum of 3 credit hours [CEE 4699](#) or [CEE 4900](#). Only one non-CEE courses allowed : [COA 4010](#), [CP 4010](#), [CP 4020](#), [CP 4310](#), or [CP 4510](#).

⁵ Maximum 3 credit hours [CEE 2699](#) allowed. [MATH 1113](#), [PHYS 2802](#), PHYS 2XXX (AP credit), one-hour MUSI courses, [GT 1000](#), and FREE XXXX are not allowed.

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

Degree Modification – APPROVED **Bachelor of Science in Environmental Engineering**

After CEE faculty review of current curriculum, changes were recommended by the faculty and CEE undergraduate curriculum committee. This request includes:

- removing CHBE 2110 (no longer offered at Tech) and replace with CHBE 2130
- modify current undergraduate program requirement notes for Technical Electives
- remove any ambiguity from notes
- EnvE Undergraduate Design Electives:
 - Replace CEE 4320, Hazardous Substance Engineering, with CEE 4340, Environmental Modeling and Health
 - CEE Technical Focus Electives for EnvE Students:
Add CEE 4340, Environmental Modeling and Health, and CEE 4350, Environmental Technologies in the Developing World

Curriculum

Major Requirements

CEE 2040	Dynamics	2
CEE 2300	Environmental Engr Prin	3
CEE 3000	Civil Engr Systems	3
CEE 3020	Civil Engr Materials	3

CEE 3040	Fluid Mechanics	3
CEE 3340	Environ Engr Laboratory	3
CEE 3770	Statistics& Applications	3
or ISYE 3770	Statistics& Applications	
CEE 4090	Capstone Design	3
CEE 4200	Hydraulic Engineering	3
COE 3001	Deformable Bodies	3
Additional Requirements		
CHEM 1315	Survey of Organic Chem	3
EAS 2600	Earth Processes	4
Select one of the following:		3
CHBE 2130	Chem Engr. Thermo I	
CHEM 3411	Physical Chemistry I	
EAS 3603	Thermodynamics-Earth Sys	
ME 3322	Thermodynamics	
Environmental Engineering Technical Elective		
Select one of the following:		3
CEE 4210	Hydrology	
CEE 4405	Geotechnical Engineering	
CEE 4620	Environ Impact Assess	
CEE 4795	Groundwater Hydrology	
Design Elective		
Select one of the following:		3
CEE 4310	Water Quality Engr	

CEE 4340	Environmental Modeling and Health	
CEE 4330	Air Pollution Engr	
CEE 4395	Environmental Sys Design	
Technical Elective Focus		
Technical Electives ⁴		15
Approved Electives		
Approved Electives ⁵		6
Total Credit Hours		129

No pass-fail allowed, except for [CS 1171](#). [CEE 4801](#) not allowed toward degree.

Students must earn at least a 2.0 average in all CEE courses.

Students must earn a minimum of 52 credit hours from the College of Engineering. (40 credit hours of required courses plus a minimum of twelve credit hours from electives.)

¹ Students must complete an Ethics requirement from the following courses: [PHIL 4176](#) (recommended), [PHIL 3105](#), [PHIL 3109](#), or [PHIL 3127](#).

² If [PHYS 2231](#) is taken, extra credit hour goes to Free Electives.

³ Minimum grade of C required.

⁴ **Technical Electives** Focus may be chosen from the following list: [BIOL 2335](#), [BIOL 3380](#), [BMED 3400](#), [BMED 4757](#), [BMED 4758](#), [CEE 3010](#), [CEE 4100](#), [CEE 4210](#), [CEE 4225](#), [CEE 4230](#), [CEE 4300](#), [CEE 4310](#), [CEE 4320](#), [CEE 4330](#), [CEE 4340](#), [CEE 4350](#), [CEE 4405](#), [CEE 4420](#), [CEE 4600](#), [CEE 4620](#), [CEE 4795](#), [CHBE 3200](#), [CHEM 3281](#), [CHEM 3511](#), [CHEM 4740](#), [CP 4210](#), [CP 4510](#), [EAS 4110](#), [EAS 4300](#), [EAS 4410](#), [EAS 4420](#), [EAS 4430](#), [EAS 4480](#), [EAS 4610](#), [EAS 4625](#), [EAS 4740](#), [ECE 3710](#), [ECE 3741](#), [ME 4171](#), [ME 4172](#) or [ME 4782](#). A maximum of 3 credit hours of [CEE 4699](#) or [CEE 4900](#).

⁵ Maximum 3 credit hours [CEE 2699](#), [MATH 1113](#), PHYS 2XXX (AP Credit), [PHYS 2802](#), one-credit-hour MUSI courses, [GT 1000](#), and FREE XXXX are not allowed.

Note: For both degree modifications, the Committee asked the academic unit to indicate that “Students must earn at least a 2.0 average in all CEE courses.” The original text read “Students must earn a 2.0 average...”

6. A motion was made to *approve* a request from the Center for Serve-Learn-Sustain for a new subject code. The motion was seconded and approved.

New Subject Code – APPROVED
SLS – Serve-Learn-Sustain

This vote was not unanimous. There were 11 votes to approve and 4 votes to deny.

Background: In January 2016 Georgia Tech embarked on its most recent Quality Enhancement Plan (QEP) required as part of SACSCOC accreditation. The previous QEP focused on undergraduate research and international experience, and led, among other things, to the creation of the International Plan degree designation. The new QEP has the theme “creating sustainable communities” and runs out of the Center for Serve Learn Sustain (SLS) within the Office of Undergraduate Education. The SLS QEP commits Georgia Tech to developing new courses and revising existing courses to provide students across many majors with educational opportunities in the sustainable communities area. Two foundation courses described in the QEP have been piloted twice using temporary course numbers. They are ready for consideration as permanent courses.

Why an SLS subject code? The two pilot courses do not fit naturally into any single (or even two) disciplines at Georgia Tech, thus traditional subject code labeling or cross---labeling is problematic. For example, the Communities course was developed and taught by a team from Computer Science, Interactive Computing, Mechanical Engineering/College of Design, Public Policy and Architecture, thus representing 4 of 6 Georgia Tech colleges. The Systems course was developed and taught by a team from Scheller, Earth and Atmospheric Sciences, Public Policy, and Chemical and Biochemical Engineering, again 4 of 6 Georgia Tech colleges. Notably, across the two courses, all 6 colleges are represented.

Why not use the GT subject code? The GT subject code is largely associated with courses that support student transition into Georgia Tech, GT 1000 being the most widely known instance. The SLS courses are not of this type. Given the importance of and institutional commitment to SLS, there is also an advantage for accreditation and for QEP success of clearly marking of courses that are a part of the QEP.

Who will decide which courses get the SLS subject code? A faculty committee will be established within the Center for SLS to evaluate courses that request the SLS label, as a step prior to consideration by the Provost’s Curriculum Committee and then the IUCC. There is a standing committee of Faculty Liaisons that would be a good default for this role.

What process will be used to decide which courses get the SLS subject code? We anticipate that courses seeking the SLS subject code will typically span more than two disciplinary units and that they will provide evidence via syllabus of content in both sustainability and communities.

Who will administer the courses? Administrative tasks such as entering courses in Banner/OSCAR and managing enrollment requests will be handled by the Center for SLS. The Assistant Director for Program Development will oversee course administration.

Are there comparable educational courses and programs elsewhere? Arizona State University is a leader in sustainability education. They have a School of Sustainability with undergrad (BA and BS), MS and PhD degrees. Their courses carry the SOS code. They describe the School as transdisciplinary and the undergraduate degree as interdisciplinary. The Colorado School of Mines has a minor in Humanitarian Engineering that is focused on “co---creating just and sustainable solutions for communities.” There are other universities with an emphasis on sustainable communities that are creating courses including Engaged Cornell and Netter Center Academically Based Community Service (ABCS) Courses at University of Pennsylvania.

Note: Discussion ensued about the sustainability of the subject code which originated from the most recent implementation of QEP standards for Georgia Tech. Concern was expressed that this could create precedent for more interest and an influx of requests to establish new subject codes that may not be sustainable and that previous QEPs did not require any requests to create new subject codes. Dr. Toktay explained that the intent of this subject code was to foster the Center for Serve-Learn-Sustain so that it remains a viable office at Georgia Tech for the long term and not only until the next QEP is implemented. Dr. Toktay also stated this would afford Georgia Tech the opportunity to be innovative with the creation of a truly interdisciplinary subject code. Dr. Potts (Vice Provost) commented it should not be considered as a negative to request such codes and assured the Committee that any new requests would still need to be reviewed to ensure credibility and quality.

Discussion Item:

1. Jeanne Balsam, Faculty Secretary, provided the Committee with some information on IUCC membership. Specifically, questions were posed in regards to whether the membership should be limited to tenure/tenure-track academic faculty and whether the current formula for determining membership still works for the Committee. Concerns were raised during the fall term about the numbers of College representatives for IGCC and it was determined that a review of Committee membership for both the IUCC and IGCC might be a timely activity going into Spring elections.

The Committee considered the questions posed, in particular exploring opportunities for effectively including e those who are creating and delivering program content even if they are not tenure/tenure-track academic faculty. The Committee concluded that further discussion was needed on the matter.

Adjourned,
Reta Pikowsky, Registrar
Secretary