

Institute Undergraduate Curriculum Committee
Minutes
February 11, 2009

Present: Pikowsky (REG), Tone (HTS), Bottomley (CHEM), Isbell (CoC), Seitzman (AE), Kubanek (BIOL), (Barke (PUBP), Chang (MGT), Riley (ECE), Ludovice (ChBE), Stein (ODOS), Castro (COA)

Visitors: Howson (REG), Jones (REG), Vito (ME/Provost's Office), Laros (REG), Hartley (EAS), Webster (CEE), Babensee (BME), Vito (Provost's Office/ME)

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.

1. The operating guidelines for handling petitions document was discussed. Comments or suggestions are to be sent to Dr. Riley. It was decided that two versions of this document would be useful. One will be internal and serve as a guide for the Committee. The other will be posted to the web site as a guide for students and advisors in navigating the petition process. It was agreed that this is a helpful document. Once it is finalized, it will be brought back for a vote.
2. Dr. Tone informed the Committee that Susan Paraska will attend the meeting on March 11 to discuss the changes in program review procedures.
3. The Committee heard an in-person appeal from a student who wished to have the W grade removed from the transcript. A motion was made to deny the petition. The motion was seconded and approved.
4. The Committee heard an in-person appeal from a student to be readmitted after a second drop. A motion was made to approve the petition with conditions set forth for the advisor and the student. The motion was seconded and approved.
5. A request for changes in pre-requisites from the College of Architecture for Building Construction courses was acknowledged without concern. It was noted that when the list indicates "add" pre-requisites already exist and the course is being added and when just the course is listed, it means that there are currently no pre-requisites and the course listed is the only pre-requisite.

COURSE	PRE-REQUISITE
BC 2600	ADD-COA 1012
BC 2610	Add-COA 1012
BC 3600	Add-BC 2620
BC 3610	Add-BC 2620

COURSE	PRE-REQUISITE
BC 3620	BC 2620
BC 3630	BC 3600
BC 3640	Add-BC 2620
BC 4610	Add-BC 3610, BC 3620 & BC 3630
BC 4620	Add-BC 3640, remove ARCH 3241
BC 4640	BC 3600, BC 3610, BC 3620
BC 4660	BC 3600, BC 3610, BC 3620
BC 4670	BC 3640

6. A motion was made to approve a request from the School of Earth and Atmospheric and Sciences for a new course. The motion was seconded and approved.

NEW COURSE

EAS 4480 Environmental Data Analysis 3-0-3

Note: The pre-requisite is any of the course courses listed. The comma after 4655 is removed.

7. A motion was made to table a request from the School of Earth and Atmospheric Sciences for a minor in Geophysics. The motion was seconded and approved.

TABLED MINOR PROPOSAL

Geophysics Minor

The School of Earth and Atmospheric Sciences minor in Geophysics is aimed at those students majoring in Civil and Environmental Engineering, Mechanical Engineering, Aerospace Engineering, Physics, Chemistry, City and Regional Planning, and Building Construction. The Geophysics minor aims to broaden student's perspectives on physical processes occurring both on Earth and throughout the Solar System. Course offered as part of the minor allow students the opportunity to apply concepts of continuum mechanics, dynamics, plasma physics, solar physics, fluid mechanics, elastic wave propagation, chemistry, and hydrology, among others, to Earth and planetary systems. In addition, many of the courses include in depth discussion of natural hazards, which play a role in public policy, economic planning, and the challenges of sustainability.

Required Courses:

EAS 2600	Earth Processes (3-1-4) Spring Fall
EAS 3610	Introduction to Geophysics (3-0-3) Fall

Choose 8 credit hours (6 MUST be 3000 level or above):

EAS 4795 Groundwater Hydrology (3-0-3) Fall

EAS 4200 Structural Geology and Continuum Mechanics (3-1-4) Spring

8. A motion was made to approve a request from the School of Earth and Atmospheric Sciences for new Minors. The motion was seconded and approved.

There was a lengthy discussion of this proposal both in terms of the content and focus of the proposed minors and in regard to the special topics courses that would be used to complete them. At the end of the discussion, it was clear that although the general concept of the proposed minors was acceptable, there needed to be some editing and rethinking of some aspects of the request.

Following the meeting, in the process of re-examining the proposals, it was determined through discussions with the Provost's Office that what was originally a proposal for several new minors was actually a proposal for new tracks within the existing minor. Therefore, the proposer withdrew the request for several new minors and adjusted the proposal to reflect the following. In an email vote, the IUCC approved this change and the proposal is being recorded in these Minutes in its revised format.

EAS special topics courses may be applied as optional courses to each track with advance permission from the School.

NEW TRACKS IN EXISTING EAS MINOR

Ocean Sciences

The School of Earth and Atmospheric Sciences track in Ocean Sciences is aimed at those students majoring in Biology, Civil and Environmental Engineering, Chemistry and Biochemistry, and Chemical and Biomolecular Engineering. The objective of the Oceanography track is to broaden students' perspectives on physical, biological, and chemical processes occurring in the oceans. Courses offered as part of the minor allow students the opportunity to apply the fundamental concepts of chemistry, biochemistry, environmental chemistry, ecology, microbial ecology, physics, and mathematics to the study of the oceans and their interaction with the land, crust, and atmosphere. In addition, some courses include in depth discussion on the impact of humans on the oceans and coastal environments, and thus may address public policy, economic planning, and the challenges of sustainability.

Required Courses:

One of:

EAS 1600 Introduction to Environmental Science (3-1-4) Spring Fall

EAS 1601 Habitable Planet (3-1-4) Spring Fall

EAS 2600 Earth Processes (3-1-4) Spring Fall

And:

EAS 4300 Oceanography (3-0-3) Fall

Choose 8 credit hours (6 MUST be 3000 level or above):

EAS 3620 Geochemistry (3-1-4) Fall

EAS 4350 Paleoclimatology and Paleoceanography (3-0-3) Spring

EAS 4410 Climate and Global Change (3-0-3) Fall

EAS 4420 Environmental Field Methods (3-1-4) Spring

EAS 4610 Earth System Modeling (3-0-3) Spring

BIOL 4221 Biological Oceanography (3-0-3) Spring

BIOL 4417 Marine Ecology (3-0-3) Spring

Environmental Science

The track in Environmental Science is for students in majors outside of EAS who have an interest in understanding the Environment and Issues surrounding it.

Required Courses:

One of:

EAS 1600 Introduction to Environmental Sciences (3-1-4)

EAS 1601 Habitable Planet (3-1-4)

Choose 11 credit hours (9 MUST be 3000 level or above):

(These have no prerequisites)

EAS 2420 Environmental Measures (3-0-3) Spring

EAS 2600 Earth Processes (3-1-4) Fall, Spring

EAS 4110 Energy Resources and the Environment (3-0-3) Fall

EAS 4300 Oceanography (3-0-3) Fall

EAS 4350 Paleoclimatology and Paleoceanography (3-0-3) Spring

(These have other science/math prerequisites)

EAS 2750 Physics of the Weather (3-0-3) Fall

EAS 4420 Environmental Field Methods (3-1-4) Spring

EAS 3620 Geochemistry (3-1-4) Fall

EAS 4740 Atmospheric Chemistry (3-0-3) Spring

Environmental Chemistry

Environmental chemistry studies the sources, reactions, transport, effects, and fates of chemical species in natural systems: water, soil, and air. The track in Environmental Chemistry is aimed at those students interested in an interdisciplinary field that seek to

understand and address environmental problems within the context of chemical systems. Environmental Chemistry will be of interest to students majoring in Chemistry, Civil and Environmental Engineering, and Chemical and Biomolecular Engineering.

The Environmental Chemistry track provides a quantitative and fundamental approach to understanding the processes that influence the quality of the environment we live and work in. By seeking solutions for such chemically based environmental problems such as air and water pollution, hazardous wastes, soil contamination, environmental chemists contribute to ensure a safe, healthy environment for all living things.

Required Courses:

EAS 3620	Geochemistry (3-1-4) Fall
EAS 4740	Atmospheric Chemistry (3-0-3) Spring

Choose 8 credit hours (at least 2 MUST be 3000 level or above):

EAS 4420	Environmental Field Methods (3-1-4) Spring
EAS 4610	Earth System Modeling (3-0-3) Spring
EAS 4620	Environmental Biogeochemistry of Soils and Sediments (3-0-3)
EAS 4795	Groundwater Hydrology (3-0-3)

Earth System Physics

The track in Environmental Physics is designed for students interested in applying physical and mathematical principles to environmental problems. This track is primarily of interest to students majoring in physics, engineering, computer science, or mathematics. This track is ideal for those interested in graduate work in geophysics or atmospheric sciences.

Required Courses:

EAS 4655	Atmospheric Dynamics (3-0-3)
EAS 3610	Introduction to Geophysics (3-0-3) Fall

Choose 9 credit hours (3 MUST be 3000 level or above):

EAS 2750	Physics of the Weather (3-0-3) Fall
EAS 4430	Remote Sensing and Data Analysis (3-0-3)
EAS 3603	Earth System Thermodynamics (3-0-3) Fall
EAS 4410	Climate and Global Change (3-0-3) Fall
EAS 4450	Synoptic Meteorology (3-0-3) Spring
EAS 4470	Large-Scale Atmospheric Circulation (3-0-3) Spring

Meteorology

The track in Meteorology is aimed at those students majoring in science and engineering. The Meteorology track aims to broaden students' perspectives on physical and dynamical processes governing various weather and climate phenomena. Courses offered as part of this track allow students the opportunity to apply theories of geophysical fluid dynamics, thermodynamics and numerical methods to weather forecasting and climate modeling.

In addition, some of the courses provide in depth discussion of weather/climate hazards and global/regional climate change, which will benefit the students if they are planning careers in environmental consulting, public policy, economic planning and risk management.

Required Courses:

EAS 2551 Introduction to Meteorological Analysis (1-0-1) Spring
EAS 2750 Physics of the Weather (3-0-3) Fall
EAS 4655 Atmospheric Dynamics (3-0-3)

Choose 8 credit hours (6 MUST be 3000 level or above):

EAS 3603 Earth System Thermodynamics (3-0-3) Fall
EAS 4410 Climate and Global Change (3-0-3) Fall
EAS 4430 Remote Sensing and Data Analysis (3-0-3)
EAS 4450 Synoptic Meteorology (3-0-3) Spring
EAS 4470 Large-Scale Atmospheric Circulation (3-0-3) Spring
EAS 4460 Satellite and Radar Meteorology (3-0-3)
EAS 4610 Earth System Modeling (3-0-3) Spring

Climate Change

The Climate Change track is for students in majors outside of EAS who have an interest in understanding Climate Change and Issues surrounding it. For many of the classes below there are prerequisites.

Required Courses:

EAS 2750 Physics of the Weather (3-0-3) Fall
EAS 4410 Climate and Global Change (3-0-3) Fall

Choose 3 credit hours:

EAS 4350 Paleoclimatology and Paleoceanography (3-0-3) Spring
EAS 3620 Geochemistry (3-1-4) Fall
EAS 4740 Atmospheric Chemistry (3-0-3) Spring

Choose 3 credit hours:

- ECON 2101 Global Economy (3-0-3)
- ECON 4440 Economics of the Environment (3-0-3)
- PUBP 3315 Environmental Policy and Politics (3-0-3)

9. A motion was made to approve a request from the School of Earth and Atmospheric Sciences for a modification of the capstone option. The motion was seconded and approved.

EAS Capstone Option

Currently, students are required to take:

- a. EAS 4610 Earth System Modeling
- b. EAS 4420 Environmental Field Methods

New option, 2 out of 3:

- a. EAS 4610 Earth System Modeling
- b. EAS 4420 Environmental Field Methods
- c. EAS 4480 Environmental Data Analysis (new course proposal also filed)

The criteria for these capstone courses are the same. Each one contains a student driven design and implementation project.

10. A motion was made to table a request from the School of Literature, Communications, and Culture for new courses. The motion was seconded and approved.

TABLED NEW COURSES

- LCC 3257 Global Cinema 3-0-3
- LCC 3258 Documentary Film 3-0-3
- LCC 3259 Experimental Film and Video 3-0-3

The course proposals will be taken up at the next meeting when there is representation from the School to answer questions.

11. A motion was made to approve a request from the School of Literature, Communications, and Culture for changes to the Minor in Women's Studies Minor. The motion was seconded and approved.
- o Reduce the number of required hours in the minor from 18 credit hours to 15 credit hours. This change would put the WST minor in line with the recently adopted minimum hours for Georgia Tech minors.

- Approve the following already existing courses as acceptable elective options for students pursuing the WST minor (approval already supported by faculties in HTS and Public Policy):
 - HTS 3051 Women & Gender in the Middle East
 - HTS 3083 Technology and American Society
 - LCC 2200 Introduction to Gender Studies

12. A request for changes in pre-requisites from the School of Civil & Environmental Engineering was acknowledged without concern.

Course # Course Title	Pre-requisites
CEE/ME1770 Intro to Engr Graphics	None
CEE2040 Dynamics	COE 2001
CEE2300 Environmental Engr Prin	CHEM 1310 or CHEM 12X1, PHYS 2211, MATH 1502 or MATH 15X2
CEE3000 Civil Engr Systems	MATH 1501
CEE3010 Geomatics	CEE/ME 1770
CEE3020 Civil Engr Materials	COE 3001 w/ concurrency
CEE3040 Fluid Mechanics	CEE 2040, MATH 2401
CEE3055 Structural Analysis	COE 3001
CEE3340 Environ Engr Laboratory	CEE 2300, BIOL 1510
CEE3770 Statistics& Applications	MATH 2401
CEE4090 Capstone Design	Senior in CEE
CEE4100 Construction Engr & Mgt	Junior or Senior in CEE
CEE4200 Hydraulic Engineering	CEE 3040
CEE4210 Hydrology	CEE 3040
CEE4225 Coastal Engineering	CEE 3040
CEE4230 Environ. Transport Modeling	CEE 4200
CEE4300 Environmental Engr Sys	CEE 2300
CEE4310 Water Quality	CEE 4300
CEE4320 Hazardous Substance Engr	CEE 3040, CEE 4300
CEE4330 Air Pollution Engr	CHEM 1310 or CHEM 12X1, PHYS 2211
CEE4405 Geotechnical Engineering	COE 3001, CEE 3040 w/ concurrency
CEE4410 Geosystems Engr Design	CEE 4405
CEE4420 Subsurface Characterization	CEE 4405
CEE4430 Environmental Geotechnic	CEE 4405
CEE4510 Structural Steel Dsgn	CEE 3055
CEE4520 Reinforced Concrete Design	CEE 3055
CEE4530 Timber & Masonry Design	COE 3001
CEE4540 Infrastructure Rehab	CEE 3020
CEE4550 Structural Analysis II	CEE 3055
CEE4600 Transportation Planning & Design	CEE/ME 1770
CEE4610 Multimodal Transportation	CEE 3000

Course # Course Title

CEE4620 Environ Impact Assess
 CEE4630 Computer-Aided Site & Road
 CEE4795 Groundwater Hydrology
 COE2001 Statics
 COE3001 Deformable Bodies

Pre-requisites

Junior or Senior in CEE
 CEE/ME 1770, CEE 4600
 CEE 3040
 MATH 1502 or MATH15X2, PHYS 2211
 MATH 2403 w/ concurrency, COE 2001

13. A motion was made to approve a change in course number for HTS 1000 to HTS 2100 as recommended at the last meeting when HTS 1000 was approved as a new course. The motion was seconded and approved.
14. A motion was made to approve a request from the School of Industrial and Systems Engineering for new courses. The motion was seconded and approved.

NEW COURSES

ISyE 4031 Regression and Forecasting 3-0-3

Note: Changed to allow all grade modes.

ISyE 4111 Advanced Supply Chain Logistics 3-0-3

Note: Changed to allow all grade modes. Committee wishes to see a new catalog description before it gives final approval.

15. A motion was made to table a request from the School of Industrial and Systems Engineering for a new course. The motion was seconded and approved.

TABLED NEW COURSE

ISyE 4301 Supply Chain Economics

Note: Committee needs input from the School of Economics before this proposal can be considered further.

16. A motion was made to approve a request from the Department of Biomedical Engineering for cross-listing of courses. The motion was seconded and approved.

CROSS-LIST

Add BME to existing course CHBE/ECE/ME 4781 Biomedical Instrumentation

17. A motion was made to approve a request from the Department of Biomedical Engineering for a BME course substitution, change in course requirements. The motion was seconded and approved.

Satisfy the course requirements for the BS BMED degree with a substitution of CHBE 4600 Engineering Communications (3-0-3) for LCC 3401 Technical Communication

Practices (2-0-2). The extra hour of credit would be considered free elective credit.

Note: The Registrar's Office requested that a revised 8-term plan be provided.

18. A motion was made to approve a request from the College of Management to cancel action on MGT 3085 Financial Markets: Trading and Structure (3-0-3), recently approved as a new course, and to approve the course with a new number, MGT 4067 Financial Markets: Trading and Structure (3-0-3). The motion was seconded and approved.

Note: MGT 4067 was approved for all grade modes, not just letter grade as indicated on the original documentation.

19. A motion was made to deny a written appeal for a waiver of the 36-hour rule. The motion was seconded and approved.
20. A motion was made to approve a written appeal for a late term withdrawal. The motion was seconded and approved.
21. A motion was made to approve a written appeal for late permission for concurrent enrollment. The motion was seconded and approved.
22. A motion was made to approve a request to change a class back to the pass/fail grade mode. The motion was seconded and approved.

Adjourned,

Reta Pikowsky
Registrar