



TO: Faculty Council Members
FROM: Michael Green, Faculty President
DATE: April 20, 2012
RE: Consent Calendar

Attached is the Consent Calendar (See Article V, Section 3.A (3 & 4), J. (3 & 5) and K.3 of the Standing Rules of the Faculty Council.) consisting of these proposals:

- GES 3-16-10 Establishment of an Interdisciplinary Minor in Environmental Sciences
- EDLD 02-21-12 Creation of ADMN 8172 Higher Education in the United States
- ETFS 01-06-2009 Establishment of New Undergraduate Concentration in Fire Safety Engineering Technology
- PHS 2012-02-20 Establishment of Recurrent Special Topics Course as HADM 6210: Medical Practice Management

Below are the catalog copy descriptions. If you wish to read the full proposals, they are posted on the Academic Affairs website.

If there are any objections regarding these proposals, they must be registered with Faculty Governance (facultygovernance@uncc.edu) by **5 PM on May 4, 2012**. If no objections are registered, the proposals will stand approved.

GES 3-16-10 Establishment of an Interdisciplinary Minor in Environmental Sciences

1. Summary

The Geography and Earth Sciences Department and Biology Department propose to create an interdisciplinary Minor in Environmental Sciences that is most appropriate for Earth Sciences majors (earth sciences, geology, and meteorology) and Biology majors, but can be carried out by any undergraduate at UNCC if the required prerequisite classes are taken. Students must have and maintain a GPA of at least 2.75 to participate in the program. Students in the program will complete one required class (Environmental Dilemma, ESCI 2101, 3 credits) and select from a group of optional courses (15 credits) offered by the two participating departments. The proposed new program would rely on existing courses offered by the two departments.

2. Catalog Copy

MINOR IN ENVIRONMENTAL SCIENCES

The Minor in Environmental Sciences is an interdisciplinary program in the College of Liberal Arts and Sciences that is designed for students pursuing any UNCC degree who are interested in careers related to studying or managing the environment. To obtain a Minor in Environmental Sciences, students will complete 18 credit hours (3 required credits and 15 elective credits) offered in the Departments of Geography and Earth Sciences and Biology. Participating students have some flexibility in choosing elective courses that reflect their specific area of interest within the environmental field. If students are Geography and Earth Sciences or Biology majors, they must take at least 9 of the 15 elective credits outside of their major. Prerequisites are required for most of the elective classes (notably GEOL 1200 and lab, ESCI 1101 and lab, BIOL 2120, and BIOL 2130 and lab). Classes that are required for a student's major cannot be counted toward the minor as well, but electives taken for a major can also be counted for the minor. Students must have and maintain a GPA of at least 2.75 to participate in the program.

REQUIRED COURSE

ESCI 2101: Environmental Dilemma (3)

GEOGRAPHY AND EARTH SCIENCES ELECTIVES

ESCI 3105: Oceanography (3)
ESCI 3170: Environmental Quality Management (3)
ESCI 3180: Environmental Impact Analysis (3)
ESCI 4140: Hydrological Processes (4)
ESCI 4155: Fluvial Processes (4)
ESCI 4170: Fundamentals of Remote Sensing (4)
ESCI 4210: Soil Science (4)
ESCI 4222: Watershed Science (3)
ESCI 4233: Geoenvironmental Site Characterization (4)
GEOL 3120: Geochemistry (3)
GEOL 3190 Environmental Geology (4)
GEOL 4145: Fundamentals of Hydrogeology (4)
GEOL 4185: Mineralogy, Economics and the Environment (3)
METR 4240: Boundary Layer Meteorology (3)
METR 4150: Applied Climatology (3)
GEOG 2103: Intro to GIScience & Technologies (4)
GEOG 3215: Environmental Planning (3)
GEOG 3250: World Food Problems (3)
GEOG 4040: Transportation Planning (3)
GEOG 4120 (Fundamentals of GIS)
GEOG 4131: Environmental Modeling (4)

BIOLOGY ELECTIVES

BIOL 3144: Ecology (4)
BIOL 3202: Horticulture (3)
BIOL 3222: General Botany (4)
BIOL 3231: Invertebrate Zoology (4)
BIOL 3233: Vertebrate Zoology (4)
BIOL 3236: General Zoology (3)

- BIOL 3235: Biology of Insects (3)
- BIOL 3229: Field Botany (3)
- BIOL 4162: Environmental Biotechnology I (3)
- BIOL 4253: Marine Microbiology (4)
- BIOL 4111: Evolution (3)
- BIOL 4235: Mammalogy (3)
- BIOL 4242: The Biology of Birds (3)
- BIOL 4243: Animal Behavior (3)

New Course Descriptions

No new courses are required for the proposed degree.

EDLD 02-21-12 Creation of ADMN 8172 Higher Education in the United States

1. Summary

The Department of Educational Leadership proposes to add one new course in the 18 semester credit hour Adult and Higher Education specialization in the program's Community Track. The course may also be used as an elective for Ed.D. students in other program tracks/specializations and doctoral students from additional doctoral programs in education.

2. Catalog Copy

ADMN 8172. *Higher Education in the United States*. (3) A review of the development of American higher education utilizing historical perspectives and relating them to the contemporary system. The primary topics include college students, faculty, curriculum, governance, finance, and the context that informs change in American postsecondary education. (*On Demand*)

ETFS 01-06-2009 Establishment of New Undergraduate Concentration in Fire Safety Engineering Technology

1. Summary and Catalog Copy

The Department of Engineering Technology and Construction Management proposes the creation of two concentrations within the Fire Safety Engineering Technology (FSET) undergraduate program: a Fire Safety concentration and a Fire Protection concentration. The 125 credit hour Fire Safety concentration will encompass the curriculum currently in place within the FSET program and will retain its emphasis on preparing students who are or plan to be engaged in non-technological activities in the fire services, emergency services, and safety fields of both public and private entities. The 125 credit hour Fire Protection concentration will incorporate new courses that will prepare fire protection professionals to use modern fire protection engineering methodologies, techniques and tools for fire protection analysis and design, fire investigation, industrial fire safety, key infrastructure security, safety risk assessment, and other fire safety related engineering and technological matters.

The two concentrations have a common 83 credit hour core as follows:

CHEM 1251 Principles of Chemistry I	3 credits
ENGL 1101 English Composition	3 credits
ENGL 1102 Writing in the Academic Community	3 credits
LBST 110X Arts and Society	3 credits
LBST 2101 Western Culture and Historical Awareness	3 credits
LBST 2102 Global and Intercultural Connections	3 credits
LBST 221X Ethical Issues and Cultural Critique	3 credits

ETFS 1120 Fundamentals of Fire Protection	3 credits
ETFS 1232 Fire Protection Hydraulics & Water Supply	3 credits
ETFS 2124 Fundamentals of Fire Prevention	3 credits
ETFS 2126 Fire Investigation	3 credits
ETFS 2132 Building Construction for Fire Protection	3 credits
ETFS 2144 Fire Protection Systems	3 credits
ETFS 2264 Fire Behavior and Combustion	3 credits
ETFS 2264L Fire Behavior and Combustion Lab	1 credit
ETFS 3103 Principles of Fire Behavior	3 credits
ETFS 3113 Building Fire Safety	3 credits
ETFS 3123 Industrial Hazards and Electricity	3 credits
ETFS 3144 Active Fire Protection	3 credits
ETFS 3233 Intro to Performance-based Fire Safety	3 credits
ETGR 1100 Engineering Technology Computer Applications	3 credits
ETGR 1103 Technical Drawing I	2 credits
ETGR 1201 Introduction to ET	2 credits
ETGR 3071 ET Professional Seminar	1 credit
ETGR 3222 Engineering Economics	3 credits
PHYS 1101 Introductory Physics I	3 credits
PHYS 1101L Introductory Physics I Lab	1 credit
PHYS 1102 Introductory Physics II	3 credits
PHYS 1102L Introductory Physics II Lab	1 credit
STAT 1220 Elements of Statistics	3 credits
Social Science Elective	3 credits

The Fire Safety concentration requires an additional 42 credit hours as follows:

ETFS 1252 Fire Protection Law	3 credits
ETFS 2230 Hazardous Materials	3 credits
ETFS 3124 Risk Management for Emergency Service	3 credits
ETFS 4123 Community Threat Assessment & Mitigation	3 credits
ETFS 4243 Research Methodology	3 credits
ETFS 4323 Advance Fire Service Administration	3 credits
MATH 1100 College Algebra and Probability	3 credits
POLS 3119 State and Local Government	3 credits
POLS 3126 Administrative Behavior	3 credits
PSYC 2171 Intro to Industrial/Organizational Psychology	3 credits
PSYC 3174 Organizational Psychology	3 credits
Major Electives	9 credits

The Fire Protection concentration requires an additional 42 credit hours as follows:

ETFS 3103L Principles of Fire Behavior Laboratory	1 credit
ETFS 3242L Fire Testing and Measurement Laboratory	1 credits
ETFS 3283 Fire Hazard Analysis	3 credits
ETFS3344 Introduction to Structural Fire Safety	3 credits
ETFS3344L Introduction to Structural Fire Safety Laboratory	1 credit
ETGR 2101 Applied Mechanics I	3 credits
ETGR 2106 Electrical Circuits	3 credits
ETGR 2171 Engineering Analysis I or MATH 1121 Calculus (ET)	3 credits
ETGR 2272 Engineering Analysis II	3 credits

ETGR 3171 Eng. Analysis III or ETGR 4272 Eng. Analysis IV	3 credits
ETME 3123 Strength of Materials or ETGR 2102 Applied Mechanics II	3 credits
ETME 3133 Fluid Mechanics	3 credits
ETME 3143 Thermodynamics	3 credits
ETME 3244 Applied Heat Transfer	3 credits
MATH 1103 Pre-calculus Math for Science and Engineering	3 credits
Major Elective	3 credits

In order to establish the concentrations, the following five new courses will be created:

ETFS3103L Principles of Fire Behavior Laboratory (W)	1 credit
ETFS 3242L Fire Testing and Measurement Laboratory (W)	1 credits
ETFS 3283 Fire Hazard Analysis	3 credits
ETFS3344 Introduction to Structural Fire Safety	3 credits
ETFS3344L Introduction to Structural Fire Safety Laboratory (W)	1 credit

The writing intensive (W) courses have been reviewed by the University College and their approvals are attached in the Appendix. As a point of clarification, it should be noted that in addition to the above courses, the following four new courses are being submitted for approval under a separate short form curriculum proposal being processed concurrently with this proposal. The reason for the separate proposals is that the new courses will impact all of the programs within the Department of Engineering Technology and Construction Management not just the FSET program.

ETGR 2171 Engineering Analysis I	3 credits
ETGR 2272 Engineering Analysis II	3 credits
ETGR 3171 Engineering Analysis III	3 credits
ETGR 4272 Engineering Analysis IV	3 credits

In addition to the new courses, the titles and/or course descriptions for the following courses will be modified. The accompanying short form curriculum proposal has been attached in the Appendix.

ETFS 3233 Applied Fire Engineering Design and Analysis to <i>ETFS 3233 Introduction to Performance-Based Fire Safety</i>
ETFS 4123 Command and Control of Major Disasters to <i>ETFS 4123 Community Threat Assessment and Mitigation</i>
ETFS 4243 Research Investigation to <i>ETFS 4243 Research Methodology</i>

Finally, the FSET program proposes to change the chemistry requirement within the common core courses from CHEM 1111 Chemistry in Today's Society to CHEM 1251 Principles of Chemistry I. Approval from the Chemistry Department concerning this proposed change is attached in the Appendix.

A.2 Proposed Catalog Copy of New and Modified Courses

The proposed catalog copy for the new and modified FSET courses is shown below. Due to the extensive nature of the proposed changes, the remainder of the proposed catalog copy has been included in the Appendix.

ETFS 3103L. Principles of Fire Behavior Lab (1) (W). Prerequisite or corequisite: ETFS 3103 or permission of department. This course provides overall instruction and hands-on experience with fire science related to the material discussed in the Principles of Fire Behavior course. The objective is to

expose students to fire experiments such as standard fire tests and state-of-the-art measurements, and thus enhance their understanding of fire behavior. (Spring) (Alternate years)

ETFS 3233. Introduction to Performance-Based Fire Safety (3). Prerequisite: ETFS 3103. This course provides an overview of the relevant performance-based fire protection engineering tools and skills, and presents the basic concepts and a systematic approach for performance-based fire safety design. The tools can also be used in the investigation and reconstruction of fire incidents. (Spring) (Alternate years)

ETFS 3242. Fire Testing and Measurement Lab (1) (W). Prerequisites: Must be in the senior year in the fire protection concentration. This course provides students with opportunities in learning current fire testing and measurement methods and instrumentations, and conducting research to tackle fire safety related real-world problems. Students are afforded unlimited possibilities for learning and achievement. (Fall)

ETFS 3283. Fire Hazard Analysis (3). Prerequisites: ETFS 3103, ETME 3244 or permission of department. Elements of quantitative fire hazard analysis will be discussed. Applications of deterministic tools for fire hazard analysis will be reviewed. Simple engineering calculations and various types of computer models will be presented, and their use for predictions of fire conditions and people evacuation will be studied using examples. (Spring) (Alternate years)

ETFS 3344. Introduction to Structural Fire Safety (3). Prerequisites: ETFS 3103 and ETME 3123. This course provides basic knowledge needed for structural fire safety design and analysis. Course topics include design philosophies and methods in fire safety engineering, approaches for structural design for fire safety, behavior of compartment fires, and behavior of structural materials in fire. This course also requires laboratory sessions in the UNCC Fire Safety Laboratory. (Fall) (Alternate years)

ETFS 3344L. Introduction to Structural Fire Safety Laboratory (1) (W). Prerequisite or corequisite: ETFS 3103 and ETME 3123. This course provides overall instruction and hands-on experience with fire science related to the material discussed in the Introduction to Structural Fire Safety course. The objective is to expose students to structural fire experiments such as standard structural fire tests and state-of-the-art measurements, and thus enhance their understanding of structural fire behavior of materials. (Fall) (Alternate years)

ETFS 4123. Community Threat Assessment and Mitigation. (3) This course focuses on the emergency service's responsibility while conducting major operations involving multi-alarm incidents, natural and man-made disasters that may require interagency or jurisdictional coordination. Emphasis is on threat assessment and mitigation strategies of potential large scale disasters including but not limited to earthquakes, hurricanes, terrorism, hazardous materials releases, tornadoes, and floods. Topics include fireground decision making, advanced incident command, command and control, safety, personnel accountability, hazard preparedness, mitigation, response, recovery, evacuation, sheltering and communications.

ETFS 4243. Research Methodology. (W,O) (3) Application of practical, up-to-date review of fire research and its application. The transfer of research and its implications for fire prevention and protection programs are addressed. Development of a student project and a written report in a specified area in fire administration or fire science technology with faculty supervision. Analytical modeling, technical research, oral and written reporting of progress and findings are required.

1. Summary

The Department of Public Health Sciences proposes to add recurrent a special topics course addressing practice management as a new graduate-level health administration course, HADM 6210 Medical Practice Management for its Master of Health Administration (MHA) students.

2. Catalog Copy

HADM 6210 Medical Practice Management (3). This course provides a comprehensive study of medical practice management and the issues, tools, and techniques to resolve those issues. The course also provides the student with an understanding of the financial and regulatory issues that influence today's medical practice with an insight into the cultural, human resource, and governance issues that make physician practices unique among healthcare organizations. (on *demand*)