Graduate Council Minutes - September 23, 2010

Graduate Council

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September 23, 2010 Minutes

Members Present

David Anderson, Vincent Anfara, Pam Angelle, Chris Boake, Ralph Brockett, Ed Caudill, Michael Essington, Daniel Feller, Patricia Freeland, Yanfei Gao, Tom George, Camille Hall, Donald Hodges, George Hoemann, Stephen Kania, Tom Ladd, Jan Lee, Leann Luna, Catherine Luther, Zhongguo Ma, Sibyl Marshall, Ken McCown, Mohammed Mohsin for Frank Guess, Joann Ng Hartmann, Blanche O’Bannon, Stefanie Ohnesorg, Masood Parang, Chris Parigger, Greg Petty, Jeff Phillips, Brandon Prins for Robert Hatcher, Greg Reed, Cynthia Rocha, Marian Roman, Rita Smith, Barbara Thayer-Bacon, John Wachowicz, Michael Zemel, Songning Zhang, Lee Riedinger, George Siopsis, Catherine Cox, Joy DeSensi, Gay Henegar, Carolyn Hodges

The Graduate Council meeting was called to order by Michael Essington on Thursday, September 23, 2010, at 3:00 p.m. in the 440 Haslam Business Building.

1. Minutes of the Preceding Meeting

The minutes of the August 19, 2010 meeting were approved by the Graduate Council.

2. Committee Reports

   Academic Policy Committee

Stefanie Ohnesorg, Chair of the Academic Policy Committee, presented the report for the September 2, 2010 meeting. (Attachment 1)

A proposal creating new language regarding the doctoral committee to be included in the Graduate Catalog was presented to the Council members. After lengthy discussion, the proposal was tabled and will be rewritten with the suggestions in mind.

Credentials Committee

Michael Zemel, Chair of the Credentials Committee, reported on the September 2, 2010 meeting. (Attachment 2)

The Council approved unanimously the recommendations for faculty approval to direct dissertations.

The Credential Committee voted against developing a two-tiered system for designating participation on doctoral committees.

   Curriculum Committee
Sibyl Marshall, Chair of the Curriculum Committee, reported for the August 26, 2010 meeting. Graduate Council approved all changes submitted. (Attachment 3)

Lee Riedinger, the Director of the UTK/ORNL Center for Interdisciplinary Research and Graduate Education (CIRE), discussed the proposed new Interdisciplinary doctoral degree in Energy Sciences and Engineering. Most of the courses to be included already exist, the instructors will be from both UTK and ORNL.

3. New Business

There was no new business.

4. Administrative Reports and Announcements

Vice Provost and Dean of the Graduate School

Carolyn Hodges, Vice Provost and Dean of the Graduate School, presented the following information:

- On October 3-4, the Dean, Directors, and Department Heads Retreat will include a discussion of the campus strategic plan, VolVision.

- Mary Albrecht, associate vice chancellor and UT Knoxville strategic plan/Top 25 project coordinator, will be discussing the implementation of the strategic plan at the October 28 Graduate Council meeting.

- On October 5 the Graduate School is hosting a luncheon for the graduate students who have received Graduate School fellowships or external fellowships.

- Graduate applications were up by more than 8% and the 14-day enrollment report showed an overall increase of approximately 114 more students than last year.

- Ernest Brothers, Director of the Office of Training and Mentorship, has been coordinating graduate program recruitment.

- An embargoed copy of the NRC assessment data has been sent to Dr. Hodges, with the information to become public on September 28.

Graduate Deans’ Group

Joy DeSensi, Chair of the Graduate Deans’ Group, reported on the August 26, 2010 meeting. (Attachment 4)

- VolVision, NRC data, and GRE changes were discussed at the August 26, 2010 Graduate Deans’ Group meeting.

- A workshop for Directors of Graduate Studies will be held on Tuesday, October 26 from 11:00 a.m. to 1:00 p.m. The focus will be on changes to the general test of the GRE.
- Graduate Handbooks were due to the Graduate School on the first day of fall classes. At the October 14 Graduate Deans’ Group meeting she will inform the Graduate Deans about which programs have not submitted them and the next steps after review.

5. Items from the Floor

No items from the floor.

The meeting was adjourned at 4:15 p.m.

Respectfully Submitted,

Gay Henegar
Secretary to Graduate Council
ATTACHMENT 1

ACADEMIC POLICY COMMITTEE
THURSDAY, SEPTEMBER 2, 2010
111 STUDENT SERVICES BUILDING

REPORT

Graduate Council Action: TABLED 9/23/2010

Present: Stefanie Ohnesorg (Chair), Ralph Brockett, Michael Essington, Yanfei Gao, Robert Hatcher, LeAnn Luna, Andrew Morse, Christian Parigger, Peggy Pierce, Kay Reed, Songning Zhang.

The meeting was called to order by Stefanie Ohnesorg, Chair, at 2:15 p.m. in 111 Student Services Building.

The committee continued its discussion of components of current policy and a draft of a changed policy. The committee discussed this policy for several months during Spring Semester 2010. The committee voted to recommend the following new text to replace the current text in the Graduate Catalog under the heading “Doctoral Degree” under the sub-heading “Doctoral Committee”:

COMMITTEE FOR DOCTOR OF PHILOSOPHY

Upon entering a Doctor of Philosophy degree program, each student is assigned an initial academic advisor who will assist the student in forming a doctoral committee. During the student’s first year of study, the initial academic advisor informs the student about steps towards forming a doctoral committee. The initial academic advisor may (but does not necessarily have to) be a member of the doctoral committee. Once formed, the department head will recommend the doctoral committee with a designated chair to the Dean of the Graduate School. In units without departmental structure, the college dean will recommend the committee. Final approval of each doctoral committee rests with the Dean of the Graduate School.

The tasks of a doctoral committee include mentoring, aiding the professionalization of the student, and ensuring the academic integrity of the doctoral program and the dissertation in particular.

In order to ensure all of these functions the doctoral committee must fulfill the following criteria:

- A doctoral committee comprises a core of at least four faculty members holding the rank of assistant professor or above at the University of Tennessee, Knoxville.
Each doctoral committee will be chaired by a faculty member from the doctoral student’s major area of study (the major professor). In special circumstances, a request to allow co-chairs for a doctoral committee may be submitted to the Graduate School for approval.

At least three members of the doctoral committee must come from academic areas that coincide or overlap with the doctoral student’s major area(s) of study so that they can serve as mentors for the dissertation project.

At least one member of a student’s doctoral committee must be from an academic unit* at UTK that is administratively separate from the student’s major field(s) of study. An important function of this ‘outside’ member of a student’s doctoral committee is to assure that all matters related to the completion of the doctoral program (such as course work, comprehensive exams, dissertation proposal, completion of the dissertation manuscript, and doctoral defense) were handled in compliance with the policies outlined in the Graduate Catalog and in the Graduate Handbook of the doctoral student’s major area of study.

It is optional to add external committee members with appropriate credentials, who are not affiliated administratively with UTK.

- Students who opt to have external committee members need to be aware that UTK cannot offer any remuneration for this professional service, and that students, in order to avoid any conflict of interest, cannot pay for any expenses that external committee members might incur related to a student’s doctoral project (for example campus visits, attending dissertation defense).
- External committee members will not be involved in judging whether a student can be admitted to candidacy and will therefore not be asked to sign the Admission to Candidacy Form.* External members are, however, voting members of the doctoral committee, and students therefore need to be advised that having an external member serve on a doctoral committee might make it necessary to schedule a defense ahead of deadline dates in such a way that all committee members’ original signatures can be obtained prior to the deadline(s) that are of relevance related to a doctoral student’s graduation plans.

Three of the four core members of each doctoral committee who hold employment at UTK, including the chair (or co-chairs if appropriate), must be approved by the Graduate Council to direct doctoral research.

* Academic unit is defined as the administrative unit where faculty are hired and evaluated, generally as departments or schools, where the doctoral degree is offered.
The meeting was called to order at 3:30 p.m. by Michael Zemel, Chair.

The following faculty members were recommended for approval by the Graduate Council to direct dissertations as follows:

<table>
<thead>
<tr>
<th>Faculty Member</th>
<th>Rank</th>
<th>Current Department</th>
<th>Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartges, Joseph</td>
<td>Professor</td>
<td>Comparative and Experimental Medicine</td>
<td>August 2020, 10 years continuing</td>
</tr>
<tr>
<td>Bernard, Ernest</td>
<td>Professor</td>
<td>Entomology and Plant Pathology</td>
<td>August 2020, 10 years continuing</td>
</tr>
<tr>
<td>Bowden, Harriet</td>
<td>Assistant Professor</td>
<td>Modern Foreign Languages and Literatures</td>
<td>Until Tenure</td>
</tr>
<tr>
<td>Camden, Jon</td>
<td>Assistant Professor</td>
<td>Chemistry</td>
<td>Until Tenure</td>
</tr>
<tr>
<td>Coffman, E.J.</td>
<td>Assistant Professor</td>
<td>Philosophy</td>
<td>Until Tenure</td>
</tr>
<tr>
<td>Crook, Thomas</td>
<td>Assistant Professor</td>
<td>Management</td>
<td>Until Tenure</td>
</tr>
<tr>
<td>Russell Dhar, Madhu</td>
<td>Research Associate Professor</td>
<td>Comparative and Experimental Medicine</td>
<td>August 2015, 5 years</td>
</tr>
<tr>
<td>Faculty Member</td>
<td>Rank</td>
<td>Current Department</td>
<td>Approval</td>
</tr>
<tr>
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<td>---------------------------</td>
</tr>
<tr>
<td>Ganusov, Vitaly</td>
<td>Assistant Professor</td>
<td>Microbiology</td>
<td>Until Tenure</td>
</tr>
<tr>
<td>Grant, Jerome</td>
<td>Professor</td>
<td>Entomology and Plant Pathology</td>
<td>August 2020, 10 years continuing</td>
</tr>
<tr>
<td>Gwinn, Kimberly</td>
<td>Associate Professor</td>
<td>Entomology and Plant Pathology</td>
<td>August 2020, 10 years continuing</td>
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<tr>
<td>Howell, Elizabeth</td>
<td>Professor</td>
<td>Biochemistry, Cellular and Molecular Biology</td>
<td>August 2020, 10 years continuing</td>
</tr>
<tr>
<td>Jenkins, David</td>
<td>Assistant Professor</td>
<td>Chemistry</td>
<td>Until Tenure</td>
</tr>
<tr>
<td>Matteson, Karla</td>
<td>Professor</td>
<td>Comparative and Experimental Medicine</td>
<td>August 2020, 10 years continuing</td>
</tr>
<tr>
<td>McKee, Bruce</td>
<td>Professor</td>
<td>Biochemistry, Cellular and Molecular Biology</td>
<td>August 2020, 10 years continuing</td>
</tr>
<tr>
<td>Ownley, Bonnie</td>
<td>Associate Professor</td>
<td>Entomology and Plant Pathology</td>
<td>August 2020, 10 years continuing</td>
</tr>
<tr>
<td>Price, Michael K.</td>
<td>Assistant Professor</td>
<td>Economics</td>
<td>Until Tenure</td>
</tr>
<tr>
<td>Prosser, Rebecca</td>
<td>Associate Professor</td>
<td>Biochemistry, Cellular and Molecular Biology</td>
<td>August 2020, 10 years continuing</td>
</tr>
<tr>
<td>Roberts, Dan</td>
<td>Professor</td>
<td>Biochemistry, Cellular and Molecular Biology</td>
<td>August 2020, 10 years continuing</td>
</tr>
<tr>
<td>Faculty Member</td>
<td>Rank</td>
<td>Current Department</td>
<td>Approval</td>
</tr>
<tr>
<td>--------------------</td>
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<td>---------------------------</td>
</tr>
<tr>
<td>Runyan, Rod</td>
<td>Assistant Professor</td>
<td>Retail, Hospitality, and Tourism Management</td>
<td>Until Tenure</td>
</tr>
<tr>
<td>Serpersu, Engin</td>
<td>Professor</td>
<td>Biochemistry, Cellular and Molecular Biology</td>
<td>August 2020, 10 years continuing</td>
</tr>
<tr>
<td>Stehle, Maria</td>
<td>Assistant Professor</td>
<td>Modern Foreign Languages and Literatures</td>
<td>Until Tenure</td>
</tr>
<tr>
<td>Vail, Karen</td>
<td>Professor</td>
<td>Entomology and Plant Pathology</td>
<td>August 2020, 10 years continuing</td>
</tr>
<tr>
<td>Windham, Mark</td>
<td>Professor</td>
<td>Entomology and Plant Pathology</td>
<td>August 2020, 10 years continuing</td>
</tr>
</tbody>
</table>

Three requests were returned to the academic departments for more information.

The committee also discussed methods for distributing the “Doctoral Mentoring Guidelines.” The committee recommended that the Graduate School host a workshop on the guidelines for interested faculty members. The Graduate School will distribute the guidelines to the academic departments and will be made available to faculty members as they receive approval to direct dissertations.

The meeting adjourned at 4:35 p.m.
REPORT

Present: Sibyl Marshall (Chair), Ed Caudill, Pat Freeland, John Ma, Gregory Petty, Jeff Phillips, Colin Spaulding, Scott Wall, Catherine Cox, Michael Essington, Cheryl Norris, Kay Reed, Greg Tipps. Representatives from programs present: Don Cox, Tom George, Don Hodges, Jan Lee, Catherine Luther, Bill Nugent, Masood Parang, Lee Riedinger, Lloyd Rinehart.

The meeting was called to order by Sibyl Marshall, Chair, at 3:45 p.m.

The committee approved for recommendation to Graduate Council the following curricular changes from the colleges.

**College of Arts and Sciences** – course changes from nine academic departments.

**College of Social Work** – adding of two courses and revision to PhD program concerning course requirements.

**Intercollegiate – Comparative and Experimental Medicine** – adding two courses.

**Intercollegiate – Center for Interdisciplinary Research and Graduate Education (CIRE)** – add new department (center), major of Energy Science and Engineering, and PhD degree. Add new courses and catalog text for the program.

**Information Item:**

**Banner-Related Changes to 2010-11 Graduate Catalog** – Cheryl Norris presented information on course restrictions in the Banner Student Information System. Catherine Cox distributed charts to each of the colleges that outline how courses will be enforced in Banner and documented in the catalog. Any prerequisites and corequisites enforced in Banner will carry an (RE) designation; those not enforced in Banner will carry a (DE) designation. Registration restrictions and registration permissions will be enforced in Banner. Comments and recommended background will not be enforced. The chart for Banner Enforcement of Graduate Courses is available here.

▲ Indicates Department, Major, Degree, Academic Discipline being added.
I. COURSE CHANGES

DEPARTMENT OF BIOCHEMISTRY AND CELLULAR AND MOLECULAR BIOLOGY

(188) (BCMB) Biochemistry and Cellular and Molecular Biology

ADD SECONDARY CROSS-LISTED COURSE

BCMB 598 Biology Education: Theory and Practice (3)
Cross-listed: (See Ecology and Evolutionary Biology 598)

DEPARTMENT OF EARTH AND PLANETARY SCIENCES

(424) (GEOL) GEOLOGY

ADD

GEOL 548 Sequence Stratigraphy (3) Theoretical and practical understanding of stratigraphic sequences generated by eustatic sea level change; identification parasequences, parasequence sets, and critical surfaces using the rock record integrated with subsurface geophysical data. Weekly class exercises and field trips support lecture and discussion.
Contact Hour Distribution: 3 lecture/discussion hours per week and 2 weekend field trips.
Recommended Background: Sedimentary Geology, Stratigraphy.

GEOL 690 Seminar in Earth and Environmental Science (3) Variable topics.
Repeatability: May be repeated. Maximum 9 hours.
Registration Permission: Consent of Instructor.

DROP

GEOL 695 Seminar in Planetary Sciences 3

REVISE RECOMMENDED BACKGROUND

GEOL 551 Planetary Geomorphology (3)
Recommended Background: Geomorphology, Planetary Geology, or consent of instructor.

REVISE DESCRIPTION, CONTACT HOUR DISTRIBUTION, AND RECOMMENDED BACKGROUND

GEOL 560 Principles of Geochemistry (4) Survey of fundamental geochemical principles as applied to sedimentary minerals, organic matter, and natural waters, with focus on conditions of weathering, deposition, diagenesis, and hydrothermal alteration in lacustrine and oceanic environments. Topics include activity-concentration relations, mineral solubility and stability, chemical speciation and redox state of natural waters, organic geochemistry, stable isotopes, and the geochemical signatures of depositional and post environments. Course will emphasize geochemical modeling to test hypotheses, explore assumptions, approximations, and equilibria in natural geochemical systems.
Contact Hour Distribution: 3 hours lecture and one 2-hour tutorial.
Recommended Background: General Chemistry, Mineralogy, Sedimentology and Stratigraphy, or consent of instructor.

REVISE TO ADD CREDIT RESTRICTION

GEOL 561 Organic Geochemistry (3)
Credit Restriction: Students cannot receive credit for both 461 and 561.

DEPARTMENT OF ECOLOGY AND EVOLUTIONARY BIOLOGY

(278) (EEB) Ecology and Evolutionary Biology
ADD 400-LEVEL COURSE FOR GRADUATE CREDIT AND CROSS-LIST (SECONDARY COURSE)

**EEB 454  Animal Communication (3)**
*Cross-listed: (See Psychology 454.)*

ADD 400-LEVEL COURSE FOR GRADUATE CREDIT

**EEB 464  Macroevolution (3)** History of life, phylogenetics, trait evolution, levels of selection, speciation and extinction, coevolution, taphonomy, astrobiology.
*Recommended Background: Biology 240.*

ADD PRIMARY COURSE AND CROSS-LIST

**EEB 598  Biology Education: Theory and Practice (3)** Develops the knowledge, skills, and confidence to be an effective biology teacher at the college level. Outcomes of the course will include a knowledge of teaching techniques, practice evaluating the teaching of others, putting educational theory into practice, and a completed teaching philosophy statement.
*Cross-listed: (Same as Biochemistry and Cellular and Molecular Biology 598 and Microbiology 598.)*

INTERDISCIPLINARY PROGRAMS

(674) Medieval Studies

REVISE TITLE, DESCRIPTION, AND ADD REPEATABILITY (SECONDARY COURSE)

**MDST 410  Topics in Medieval/Early Modern French Literature (3)**
*Cross-listed: (See French 410.)*

DEPARTMENT OF MICROBIOLOGY

(684) Microbiology

ADD SECONDARY CROSS-LISTED COURSE

**MICR 598  Biology Education: Theory and Practice (3)**
*Cross-listed: (See Ecology and Evolutionary Biology 598.)*

REVISE HOURS AND REPEATABILITY

**MICR 593  Independent Study (1-15)**
*Repeatability: May be repeated. Maximum 15 hours.*

DEPARTMENT OF MODERN FOREIGN LANGUAGES AND LITERATURES

(405) French

ADD 400-LEVEL COURSE FOR GRADUATE CREDIT

**FREN 450  Special Topics (3)** Selected topics in French Studies.
*Recommended Background: 353.*
*Repeatability: May be repeated if topic differs. Maximum 9 hours.*

DROP

**FREN 412  French Literature of the 17th Century (3)**
**FREN 414  French Literature of the 19th Century (3)**

REVISE TITLE, DESCRIPTION, AND ADD REPEATABILITY (PRIMARY COURSE)
FREN 410 Topics in Medieval/Early Modern French Literature (3) Close reading and analysis of literary texts from the Medieval/early modern periods.
Cross-listed: (Same as Medieval Studies 410.)
Repeatability: May be repeated if topic differs. Maximum 6 hours.

REVISE TITLE, DESCRIPTION, AND ADD REPEATABILITY

FREN 415 Topics in Modern French and Francophone Literature (3) Close reading and analysis of modern and contemporary literary texts in French.
Repeatability: May be repeated if topic differs. Maximum 6 hours.

REVISE DESCRIPTION

FREN 431 Highlights of French Civilization (3) Survey of French civilization from the Gauls to World War II.
Recommended Background: 300-level literature course.

REVISE RECOMMENDED BACKGROUND

FREN 432 Contemporary French Culture (3)
Recommended Background: 353.

DEPARTMENT OF PSYCHOLOGY

(830) Psychology

ADD 400-LEVEL FOR GRADUATE CREDIT AND CROSS-LIST (PRIMARY COURSE)

PSYC 454 Animal Communication (3) Principles of communication in animals. Analyses of developmental, mechanistic, functional, and evolutionary influences on communicative signals. Information and coding, communication and social behavior, signal complexity and human language.
Cross-listed: (Same as Ecology and Evolutionary Biology 454)
Recommended Background: Animal behavior course.

ADD

PSYC 540 Nonparametric Statistics (3) Nonparametric (distribution-free) statistical analysis of data. Probability theory; analysis of contingency tables; analysis based on ranks. Basic randomization and Monte Carlo methods.

REVISE REPEATABILITY

PSYC 509 Research Practicum (1-3)
Repeatability: May be repeated. Maximum 18 hours.

DEPARTMENT OF SOCIOLOGY

(915) SOCIOLOGY

REVISE REPEATABILITY AND REQUEST PERMISSION FOR VARIABLE TITLE

SOCI 645 Advanced Studies in Political Economy (3)
Repeatability: May be repeated. Maximum 15 hours.

SOCI 655 Advanced Studies in Criminology (3)
Repeatability: May be repeated. Maximum 15 hours.

SOCI 665 Advanced Studies in Environmental Sociology (3)
Repeatability: May be repeated. Maximum 15 hours.

SOCI 675 Advanced Studies in Social Psychology (3)
Repeatability: May be repeated. Maximum 15 hours.
SOCl 695 Advanced Special Topics (3)
Repeatability: May be repeated. Maximum 15 hours.

DEPARTMENT OF THEATRE
(976) THEATRE

ADD
THEA 524 Master Class in Acting Shakespearean Text (3) Tools for the analysis and performance of Shakespearean texts. Acting monologues and scenes are required.
Repeatability: May be repeated. Maximum 6 hours.
Comments: Theatre MFA students only.
I. COURSE CHANGES

(905) (SOWK) Social Work

ADD

603 Advanced Research (3) Required course. This advanced research methods course will focus on the development and writing of a research proposal. Students will learn advanced methods of sampling and research design. Students will develop skills at conceptualizing and formulating research questions and hypotheses; and planning sampling procedures, a research design, and data analysis procedures that are consistent with and appropriate for specific research questions and hypotheses.

675 Teaching Methods in Social Work (3) Elective course for doctoral students in Social Work. Focuses on social work curriculum policy and curriculum issues, course development and content, teaching techniques, and classroom management. Emphasizes skill as well as conceptual content and theory. The use of important instructional technology is also covered, including the use of Blackboard.

II. PROGRAM CHANGES

(905) (SOWK) Social Work

REVISE SOCIAL WORK MAJOR, PHD

In the 2010-2011 Graduate Catalog under Social Work Major, PhD, revise text under Requirements Heading, 4th paragraph as follows:

Delete as a required course SOWK 640 and replace with SOWK 603. No other changes to the paragraph.
I. COURSE CHANGES

(261) Comparative and Experimental Medicine – Veterinary Medicine

ADD

601 Advanced Epidemiology (3) Epidemiological study design, data analysis, and model building. Emphasis placed on using, understanding, and making inferences based on least squares, logistic Poisson, survival, and mixed models. STATA will be used as the basic computing language for all analyses.

Recommended Background: Graduate-level epidemiology and statistics courses.

Comment(s): Consent of instructor is required.

617 Journal Club in Comparative Medicine (1) Readings and discussions based on current literature.

Grading Restriction: Satisfactory/No Credit grading only.

Repeatability: May be repeated. Maximum 12 hours.
ADD NEW DEPARTMENT, MAJOR, AND DEGREE (CIRE / 218)

ADD NEW ACADEMIC DISCIPLINE AND SUBJECT CODE (324 / ESE)

I. COURSE CHANGES

ADD NEW ACADEMIC DISCIPLINE, SUBJECT CODE AND COURSES (324) (ESE) Energy Science and Engineering

ESE 502 Registration For Use of Facilities (1-15) Required for the student not otherwise registered during any semester when student uses university facilities and/or faculty time before degree is completed.
Grading Restriction: Satisfactory/No Credit grading only.
Repeatability: May be repeated.
Credit Restriction: May not be used toward degree requirements.
Registration Restriction: Minimum student level – graduate.

ESE 511 Introduction to Energy Science and Technology I (3) Topics include: Energy basics, history of energy and society, current and future supply and demand, political and environmental aspects of energy production, energy technologies (fossil fuels, biomass, nuclear fission, nuclear fusion, solar, wind, geothermal), energy conversion, storage, transportation, and distribution, energy efficiency, and innovation.

ESE 512 Introduction to Energy Science and Technology II (3) Topics include: Energy basics, history of energy and society, current and future supply and demand, political and environmental aspects of energy production, energy technologies (fossil fuels, biomass, nuclear fission, nuclear fusion, solar, wind, geothermal), energy conversion, storage, transportation, and distribution, energy efficiency, and innovation.

ESE 593 Independent Study (1-3)
Repeatability: May be repeated. Maximum 9 hours.
Credit Restriction: Only 6 hours may be applied toward degree requirements.

ESE 599 Seminar (1)
Grading Restriction: Satisfactory/No Credit grading only.
Repeatability: May be repeated. Maximum 15 hours.
Credit Restriction: Only 3 hours may be applied toward degree requirements.

ESE 600 Doctoral Research and Dissertation (3-15)
Grading Restriction: P/NP grading only.
Repeatability: May be repeated.
II. PROGRAM CHANGES

ENERGY SCIENCE AND ENGINEERING, PHD (PENDING THEC APPROVAL)

Energy Science and Engineering, PhD*

*This program is pending approval from the Tennessee Higher Education Commission. Students will be admitted to the major should the program be approved.

A graduate program is offered leading to the Doctor of Philosophy (PhD) degree in Energy Science and Engineering (ESE). This interdisciplinary degree is a collaborative effort supported by selected faculty in the College of Arts and Sciences, the College of Agricultural Sciences and Natural Resources, and the College of Engineering, in addition to research staff of Oak Ridge National Laboratory. These research and educational leaders are appointed as faculty members of the Center for Interdisciplinary Research and Graduate Education (CIRE). Members of the CIRE faculty determine the curriculum and serve as the primary resource for the teaching, research, and mentoring of the students admitted to the program. The CIRE Graduate Education Committee makes decisions on admissions, transfer, evaluation, and continuation of graduate students in the program.

Admission Requirements

In order to be admitted to the PhD program in energy science and engineering, student applicants must fulfill the general admission criteria for the Graduate School of the University of Tennessee Knoxville. In addition, the student must have a Bachelor of Science degree in either engineering or a scientific field (physics, chemistry, biology, mathematics, computational science, etc.), or the equivalent. Students with other undergraduate degrees may also be admitted on a case-by-case basis by the CIRE Graduate Coordinating Committee. Dependent on the student’s background, additional coursework may be required to satisfy core and prerequisites.

Requirements

A minimum of 72 hours is required beyond the bachelor’s degree, exclusive of credit for an MS thesis, and completion of the core requirements, as outlined in
the section on Course Requirements. Of this number, a minimum of 24 and up to 36 hours of 600 Doctoral Research and Dissertation and six hours of 600-level coursework at UTK will be required.

No later than one year after entering the program, each student must take a qualifying examination. A student must pass the qualifying examination to proceed in the PhD program.

No later than the end of the second year following entrance into the PhD program, each student must take and pass a comprehensive examination that includes presentation and approval of the proposed dissertation research. After passing the comprehensive exam, the student should submit the Admission to Candidacy Application to the Graduate School. Admission to candidacy indicates that the student has demonstrated the ability to do acceptable work in the area of study and has made satisfactory progress toward the degree. This action usually connotes that all prerequisites to admission have been completed and the program of study/research has been approved (see details in a later section).

After completion of the dissertation, prior to graduation, each student must pass a dissertation defense examination administered by the student’s doctoral committee.

**Course Requirements**

Out of the 72 hours required for the program, 36 hours of coursework is required beyond the BS degree. Of these, the following 30 hours of coursework or their equivalent must be completed at a minimum, including the Core Curriculum, a Knowledge Breadth Curriculum, a Knowledge Specialization Curriculum, and Seminar Series, as summarized below.

**A. Core Curriculum (6 credits)**

ESE 511 and ESE 512 Introduction to Energy Science and Technology (3, 3)

**B. Knowledge Breadth Curriculum (6 Credits): select two courses from the three following areas**

- Political, social, legal, ethical and security issues related to energy (3-4 courses, each 3 credits)
- Entrepreneurship, leadership, and management (3-4 courses, each 3 credits)
- Environmental and climate sciences related to energy (3-4 courses, each 3 credits)

**C. Knowledge Specialization Curriculum (15 Credits)**

Choose five courses from participating department as defined in the CIRE Graduate Student Handbook.

- Nuclear energy
- Bioenergy and biofuels
- Renewable energy
- Energy conversion and storage
- Distributed energy and grid management
- Environmental and climate sciences related to energy
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D. ESE 599 Seminar (3 credits; 1+1+1)

Faculty Committee

Advisor/Major Professor

Each graduate student must have an advisor/major professor. This professor advises the student about course selection, supervises the student’s research, and facilitates communication within the degree program and/or student’s major department, to other departments, and with the Graduate School relative to requirements. A temporary advisor may be assigned to direct the entering student’s work during the period in which the student is becoming acquainted with the institutions and determining the focus of research interests. Once the major professor is determined, the major professor and the student together select a doctoral committee. The student is expected to maintain close consultation with the major professor and other members of the graduate committee with regard to progress in the program.

Doctoral Committee

The major professor directs the student’s dissertation research and chairs the doctoral committee. The student and major professor identify a doctoral committee composed of at least four faculty members holding the rank of assistant professor or above, three of whom, including the chair, must be approved by the Graduate Council to direct doctoral research. At least one member must be outside the CIRE faculty. Committee members should be chosen to insure multidisciplinary breadth. The Center Director has oversight responsibility to insure the multidisciplinary nature of the committee. A doctoral student, in collaboration with the major professor, should begin to form the doctoral committee during the first year of study. Once formed, the doctoral committee, by request of the major professor, will meet annually, at the minimum, with the student to insure timely progress toward the degree.

Admission to Candidacy

Admission to candidacy indicates that the student has demonstrated ability to do acceptable graduate work and that satisfactory progress has been made toward the degree. This action usually connotes that all prerequisites to admission have been completed and a program of study has been approved.

A student may be admitted to candidacy for the doctoral degree after passing the comprehensive examination and maintaining at least a B average in all graduate coursework. Each student is responsible for filing the Admission to Candidacy form, which lists all graduate courses to be used for the degree, including courses taken at the University of Tennessee or at other institutions prior to admission to the doctoral program. The Admission to Candidacy form is signed by the doctoral committee.

Graduate Student Examinations

This section provides a description of the graduate student examination requirements for the PhD degree program. Three examinations are required as
part of the doctoral program: qualifying examination, comprehensive examination, and defense of dissertation examination.

Qualifying Examination

The qualifying examination is developed, administered, and graded by the faculty (or designated subset of the faculty) of the PhD program under the coordination of the CIRE Director and tests the student's general knowledge related to the course requirements. In case of failure, the candidate may appeal to retake the examination through the CIRE Graduate Education Committee within 30 days of notification of the result. If the appeal is granted, the student must retake the examination at the next offering. The result of the second examination is final.

Comprehensive Examination

Timing. The Comprehensive Examination must be taken no later than the end of the second year following entrance into the PhD program and prior to admission to candidacy. The timing is late enough in a student's academic program to permit most of his/her graduate course work to be covered on the examination, and early enough to permit modification of the student's program based on the results of the exam.

Prerequisites for the exam. Two requirements must be satisfied before a student takes the Comprehensive Examination.

A written Dissertation Proposal, approved by the major professor, must be submitted to each member of the student’s Doctoral Committee two weeks prior to the examination.

Each member of the student's Doctoral Committee must agree that the student is ready to take the Comprehensive Exam. In order to satisfy each member of the committee that he/she is ready for the exam, the student may be required to perform satisfactorily on either written or oral tests as prescribed by the committee member. The committee member will communicate to the major professor when they are satisfied that the student is ready to take the Comprehensive Exam.

Format. The Comprehensive Examination will consist of two parts:

A one-day to two-day open book written examination will be given at an agreed upon date. This exam will be composed by the members of the Doctoral Committee at the request of the student’s major professor, and the exam will be administered by the major professor.

Approximately three to six weeks after the written examination, the student will be required to defend his/her dissertation research proposal to the committee. An oral examination will be given. In addition, the student may be further examined in an oral examination on subject matter similar to that covered on the written exam.

Once the Comprehensive Examination is passed, the student should file for and be admitted to candidacy. At the discretion of the Doctoral Committee, supplemental reexaminations for the Comprehensive Examination and/or...
proposed dissertation research may be required. In case of failure, the candidate may not apply for reexamination until the following semester. The result of the second examination is final.

Defense of Dissertation Examination

A doctoral candidate must pass an oral examination on the dissertation. The dissertation, in the form approved by the major professor, must be distributed to the committee at least two weeks before the examination. The examination must be scheduled through the Office of the University Registrar at least one week prior to the examination and must be conducted in university-approved facilities. The examination is announced publicly and is open to all students and faculty members. The defense of dissertation will be administered by all members of the doctoral committee after completion of the dissertation and all course requirements. This examination must be passed at least two weeks before the date of submission and acceptance of the dissertation by Graduate Student Services. The major professor must submit the results of the defense by the dissertation deadline.
Graduate Deans’ Group
Thursday, August 26, 2010, 2:00 – 3:30 p.m.
Graduate School Conference Room

Attending:

Chris Boake, Ernest Brothers, Joy DeSensi (Chair), Michael Essington, Tom George, Carolyn Hodges, Yvonne Kilpatrick, Tom Ladd, Jan Lee, Catherine Luther, Stefanie Ohnesorg, Masood Parang, Leon Potgieter, Kay Reed, Greg Sedrick for Robert Moore, Rita Smith, Scott Wall for Ken McCown.

The Graduate Deans’ Group meeting was called to order by Joy DeSensi, on Thursday, August 26, 2010, at 2:00 p.m. in the Graduate School Conference Room.

1. Joy DeSensi welcomed the members and introductions were made.

2. The Graduate Deans’ Group Mission was reviewed with the members of the committee.

3. The minutes of the Graduate Deans’ Group meeting from March 25, 2010 were approved.

4. Reports and Announcements

Carolyn Hodges, Vice Provost and Dean of the Graduate School, reported the following topics:

- **VolVision** link was shared with the Graduate Deans. The Provost would like to have feedback from faculty and deans. Benchmarks have been established, and funding is needed.
- **GRE Changes** The test is entirely computerized, allowing students to edit, skip questions and return later to answer them, etc. New questions of real life scenarios have been added. Scoring is now between 130 and 170 with one point increments.
- **NRC Future Data Gathering** The Office of Research and Assessment is overseeing this information. Results will be in the form of ranges and not just one score. Departments need to use the NRC as a reference in collecting information in their programs.

Kay Reed, Assistant Dean of the Graduate School, shared the following information:
- Banner will go into use on September 30 for Spring 2011 registration. The reporting capability is greater than what we are accustomed to. Peggy Love is coordinating the training sessions. Information from Banner will be a good resource for Directors of Graduate Studies.

5. Ernest Brothers, Assistant Dean of the Graduate School and Director in the Office of Graduate Training and Mentorship, shared a PowerPoint presentation explaining how the Office of Graduate Training and Mentorship can serve departments and/or programs. The PowerPoint Presentation will be placed on the Graduate Deans’ Group Blackboard site.

6. Yvonne Kilpatrick, Interim Director of Graduate Admissions, updated the Graduate Deans on admission issues.

- Greg Tipps, the Associate Director of Graduate Admission, handles the technical aspect of the office with Yvonne handling the policy issues.
- Graduate Admissions is eliminating the paper applications, and there is no longer a form to print off on the Graduate Admissions website.
- All exceptions come to Kay Reed or Carolyn Hodges for decisions.
- The first review of the graduate application is GPA, TOEFL, degree confirmation, and validity of international application documents verified. Materials are then sent to the department. The department returns the files to the Graduate Admissions Office, and they begin the second review process of admitting the student. Center of International Education (CIE) is now handling the I-20s. Joann Ng Hartman is the contact in CIE. (Attachment 1)

7. Jan Lee, Associate Dean in the College of Nursing, expressed her concerns over the lack of writing skills of her graduate students. It appears that this is a campus wide problem. Various ways to handle the problem were discussed.

8. Joy DeSensi, Associate Dean of the Graduate School, reported on the following:

- The new title for the Department Graduate Director is Director of Graduate Studies.
- New department graduate student handbooks are due to the Graduate School now.
- Best Practices in Teaching Program for Graduate Teaching Associates, Graduate Assistants, and New Faculty will commence on Wednesday, September 15 and will continue until November 3. The program will also be offered in Spring 2011.
Topics for discussion from March 25, 2010 meeting are the Hooding Ceremony, and the Graduate Deans’ Colloquium. There was no discussion on the Hooding Ceremony. The Graduate Deans’ Colloquium would bring graduate students together to learn about time management, writing skills, how to choose a committee, and other issues. Perhaps each graduate dean could be in charge of a session.

The next Graduate Deans’ Group meeting will be on Thursday, October 14, 2010, 2:00 – 3:30 in the Graduate School Conference Room.

With no further business, the meeting was adjourned at 3:30 p.m.

Respectfully Submitted,
Gay Henegar
Secretary to Graduate Deans’ Group