# Graduate Council Minutes - February 3, 2011 

Graduate Council

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## THE UNIVERSITY OF TENNESSEE

February 3, 2011 Minutes

## Members Present

David Anderson, Pam Angelle, Alvaro Ayo for Dan Feller, Caula Beyl, Ben Blalock, Chris Boake, Marianne Breinig, Ralph Brockett, David Buehler for Donald Hodges, Michael Essington (Chair), Patricia Freeland, Yanfei Gao, Tom George, Frank Guess, Camille Hall, George Hoemann, Stephen Kania, Jan Lee, Leann Luna, Catherine Luther, Sibyl Marshall, Andrew Morse, Joann Ng Hartmann, Stefanie Ohnesorg, Chris Parigger, Greg Petty, Jeff Phillips, Cynthia Rocha, Marian Roman, Rita Smith, Colin Spaulding, Barbara Thayer-Bacon, John Wachowicz, Scott Wall, Michael Zemel (Chair Elect), Songning Zhang, Ernest Brothers, Catherine Cox, Joy DeSensi, Gay Henegar, Carolyn Hodges, Yvonne Kilpatrick, Kay Reed.

The Graduate Council meeting was called to order by Michael Essington on Thursday, February 3, 2011 Minutes, at 3:00 p.m. in the Multipurpose Room, Black Cultural Center.

1. Minutes of the Preceding Meeting

The minutes of the November 18, 2010 meeting were approved by the Graduate Council.
2. Committee Reports

## Credentials Committee

Michael Zemel, Chair of the Credentials Committee, reported on the January 27, 2011 meeting. (Attachment 1)

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


## Curriculum Committee

Sibyl Marshall, Chair of the Curriculum Committee, presented the report for the January 20, 2011 meeting. (Attachment 2)

- Sibyl read the summation of the committee approved recommendations for the Colleges of Agricultural Sciences and Natural Resources; Arts and Sciences; Business Administration; Communication and Information; Education, Health and Human Sciences; Engineering; Nursing; and Social Work. The recommended curriculum proposals were approved by the Graduate Council.

3. New Business

There was no new business.
4. Administrative Reports and Announcements

## Graduate Deans' Group

Joy DeSensi, Chair of the Graduate Deans' Group, reported on the January 13, 2011 meeting. (Attachment 3)

- The Graduate Deans' Group shared their college's diversity recruitment initiatives. Discussion of which ones were successful and how they can be used in the future will be the topic of their next meeting.
- Graduate fellowship applications are due in the Graduate Office by March 4. Applications need to be complete in order to be considered. Information is posted on the Graduate School Website and the Graduate Deans' Group Blackboard site.


## Graduate Dean

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

- The Top 25 Initiative Task Force Groups are meeting weekly in order to have their report ready by the end of March. The whole report will be presented to the Board of Trustees in June. Recruitment of top students, financial support, areas that need to grow in recognition, student retention and success, efficiency and effectiveness of the administration, and collecting data are areas that are being focused on.
- Renovations to the Office of Graduate Admissions have been completed. There will be an Open House in the near future.
- George Hoemann, Assistant Dean of Distance Education, shared information on the new federal rules and regulations. Currently Distance Education is open only to Tennessee residents until Distance Education (with assistance from General Counsel) can conform to the new rules and regulations. Title 4 funding will be cut if we don't comply.


## Graduate Student Senate

Andrew Morse, President of the Graduate Student Senate, shared the following information:

- The next Graduate Student Senate meeting will be on Tuesday, February 8.
- Graduate Student Senate is working on student retention.
- Graduate Student Travel Awards are due by April 14. New application and evaluation criteria are now in use.
- Bylaw changes now promote more activity in equality and diversity, research, and communication and outreach.
- Colin Spaulding, Vice President of Graduate Student Senate, shared information about the Love Your Libraries 5K Run and Fun Walk. It will be held
on Saturday, March 5, 2011 at 8:00 a.m. Registration begins at 6:45 a.m. The funds will be used to increase the Libraries' on-line journal access.


## Graduate Council Chair

Michael Essington, Chair of the Graduate Council, made the following announcements:

- Six members' and six proxies' terms end on July 31, 2011. Elections are being held in the colleges, and new members lists are due to the Graduate School by March 1, 2011. (Attachment 4)
- The nomination committee is working to compile a slate of members who are willing to become the new Vice Chair Elect. Elections will also be held this spring.

5. Items from the Floor

No items from the floor.
The meeting was adjourned at 3:35 p.m.
Respectfully Submitted,
Gay Henegar
Secretary to Graduate Council

## ATTACHMENT 1

CREDENTIALS COMMITTEE
THURSDAY, JANUARY 27, 2011, 3:30-5:00 P.M.
111 STUDENT SERVICES BUILDING, GRADUATE SCHOOL CONFERENCE ROOM
Members Present: Michael Zemel (Chair), David Anderson, Frank Guess, Stephen Kania, Barbara Thayer-Bacon, Kay Reed.

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: (GRADUATE COUNCIL AGENDA - 2-3-2011)

| Faculty Member | Rank | Current Department | Approval |
| :--- | :--- | :--- | :--- |
| Alexiades, Vasili | Professor | Mathematics | August 2021, 10 years <br> continuing |
| Andersen, Margaret | Assistant Professor | History | Until Tenure |
| Attard, Thomas L. | Assistant Professor | Civil and Environmental <br> Engineering | Until Tenure |
| Bichescu, Bogdan D. | Assistant Professor | Statistics, Operations, and <br> Management Science | Until Tenure |
| Brewer, Ernest | Professor | Educational Leadership and <br> Policy Studies | August 2021, 10 years <br> continuing |
| Fulcher, Amy | Assistant Professor | Plant Sciences | Until Tenure |
| Ganguly, Auroop | Joint Faculty ORNL | Civil and Environmental <br> Engineering | August 2016, 5 years <br> non-tenure track |


| Johnson, Elizabeth | Assistant Professor | Child and Family Studies | Until Tenure |
| :--- | :--- | :--- | :--- |
| Mundorff, Amy Z. | Assistant Professor | Anthropology | Until Tenure |
| Neitzel, Carin Lynn | Assistant Professor | Child and Family Studies | Until Tenure |
| Orme, John | Professor | Social Work | August 2021, 10 years |
| Phillips, Denise | Assistant Professor | History | Until Tenure |
| Puckett, Walter | Assistant Professor | Finance | Until Tenure |
| Taboada, Alvaro G. | Assistant Professor | Finance |  |

The meeting adjourned at 4:30 p.m.

ATTACHMENT 2<br>Graduate Curriculum Committee<br>Thursday, January 20, 2011<br>Law Library Rare Books Room $4^{\text {th }}$ Floor

Present: Sibyl Marshall (Chair), Pat Freeland, Catherine Luther, John Ma, Gregory Petty, Jeff Phillips, Colin Spaulding, John Wachowicz. Representing the Colleges were Michael Essington (CASNR), Thomas George (EHHS), R.J. Hinde (A\&S), Jan Lee (CON), Masood Parang (COE), David Patterson (CSW), Fred Pierce and Amy Cathey (CBA). Others present were Catherine Cox, Carolyn Hodges, Cheryl Norris, Kay Reed, and Greg Tipps.

The meeting was called to order by Sibyl Marshall at 2:00 p.m. The following curriculum proposals were approved as presented for recommendation to Graduate Council.

College of Agricultural Sciences and Natural Resources - dropped 33 courses, added 35 courses, revised 6 courses. Dropped one academic discipline, added one academic discipline, dropped one major, degree, concentration, and added one major (name change from Agricultural Economics to Agricultural and Resource Economics)

College of Arts and Sciences - dropped 122 courses, added 105 courses, revised 12 courses. Dropped 8 academic disciplines, added 5 academic disciplines, added 5-yr BS-MS program in Physics.

College of Business Administration - dropped 4 courses, added 29 courses, revised 27 courses. Introduced courses for 1.5 hours. Added dual MBA-PharmD (UT Health Science Center) and dual MS-MBA Business Analytics.

College of Communication and Information - dropped 2 courses, added 3 courses, revised 52 courses (for registration restriction).

College of Education, Health, and Human Sciences - dropped 4 courses, added 25 courses, revised 43 courses. Added 2 certificates.

College of Engineering - dropped 25 courses, added 16 courses, revised 20 courses. Added $25-\mathrm{yr}$ BS-MS degrees (Materials Science and Engineering and in Nuclear Engineering).

College of Nursing - dropped 0 courses, added 0 courses, revised 10 courses. Dropped 2 certificates and added 2 certificates (name change) and added 1 joint certificate with Department of Public Health.

College of Social Work - dropped 0 courses, added 1 course, revised 6 courses. Added Doctor of Social Work (pending THEC approval) degree.

- Identifies academic disciplines that are being dropped/added.
+ Identifies majors, degrees being dropped/added.

Identifies certificates being dropped/added.

- Identifies concentrations that are being dropped/added.

COLLEGE OF AGRICULTURAL SCIENCES AND NATURAL RESOURCES
All changes effective fall 2011

## I.COURSE CHANGES

## DEPARTMENT OF AGRICULTURAL AND RESOURCE ECONOMICS

(047) (AGEC) Agricultural Economics

DROP ACADEMIC DISCIPLINE AND ALL COURSES
412 Agricultural Finance (3)
420 International Agricultural Trade and Marketing (3)
430 Food and Agricultural Policy (3)
442 Agribusiness Management (3)
445 Economics of Biomass for Renewable Energy (3)
470 Policy Analysis for Environmental and Natural Resource Management (3)
500 Thesis (1-15)
502 Registration for Use of Facilities (1-15)
505 Microeconomic Analysis (3)
512 Advanced Agribusiness Finance (3)
520 Research Methodology in Agricultural Economics (1)
524 Econometric Methods in Agricultural Economics (3)
525 Agribusiness Operations Research Methods (3)
530 Agricultural Policy Analysis (3)
542 Advanced Agribusiness Production Decisions (3)
550 Advanced Agribusiness Marketing (3)
552 Advanced Agribusiness Seminar (3)
570 Advanced Natural Resource Economics (3)
593 Special Topics in Agricultural Economics (1-3)
595 Professional Internship (3)
600 Doctoral Research and Dissertation (3-15)
640 Agricultural Production and Supply Analysis (3)
650 Agricultural Markets and Demand Analysis (3)
670 Advanced Topics in Natural Resource Economics (3)

## ADD ACADEMIC DISCIPLINE, SUBJECT CODE, AND COURSES

## (AREC) Agricultural and Resource Economics

412 Agricultural Finance (3) Macro-finance, financial objectives, acquisition of debt and equity funds, capital investments, capital allocation, debt repayment, credit analysis, borrower and lender loan application analysis, insurance strategies, computer applications, kinds and sources of agricultural credit, and financial intermediation.
(RE) Prerequisite(s): 212 and Accounting 200.
420 International Agricultural Trade and Marketing (3) Introduction to real and monetary aspects of international trade effect on agricultural commodity flows; partial equilibrium analysis of international trade in agricultural products; institutional aspects of international marketing of agricultural products.
(RE) Prerequisite(s): 320.

430 Food and Agricultural Policy (3) Values, goals and policy process. Economic rationale and effects of policy. Historical development and current characteristics of commodity, credit, food, and trade policy. (RE) Prerequisite(s): 320.

442 Agribusiness Management (3) Advanced concepts in developing business and marketing plans and in applied management principles such as inventory control and pricing techniques. Discussion of management issues including going international, employee supervision, management succession and guerilla marketing. Teamwork emphasized in managing an agribusiness firm through game simulation. Written and oral presentation required.
(RE) Prerequisite(s): 212 and Accounting 200
Recommended Background: Intermediate microeconomics.
445 Economics of Biomass for Renewable Energy (3) Overview of the economics of renewable energy and the potential role for biomass. Assessment of the economic, environmental, and policy forces that are shaping the bioenergy industry. Exploration of methods for evaluating the economic feasibility of bioenergy feedstock production, logistics, and conversion.
(RE) Prerequisite(s): 201 or Economics 201.
470 Policy Analysis for Environmental and Natural Resource Management (3) Application of a policy analysis framework to conflicts and issues associated with natural resource use and related environmental quality impacts. Design of institutional changes to improve economic efficiency and equity, with emphasis on the potential applicability of markettype and incentive-based policy mechanisms.
(RE) Prerequisite(s): 201 or Economics 201.
500 Thesis (1-15)
Grading Restriction: P/NP only.
Repeatability: May be repeated
Credit Level Restriction: Graduate credit only.
Registration Restriction(s): Master of Science - agricultural and resource economics major. Minimum student level graduate.

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.
Credit Level Restriction: Graduate credit only.
Registration Restriction(s): Minimum student level - graduate.
505 Microeconomic Analysis (3) Theory of utility maximization and demand, production, cost, firm behavior, and supply; price in product and factor markets; efficiency and welfare.
Recommended Background: Calculus and intermediate microeconomics courses
512 Advanced Agribusiness Finance (3) Financial and investment analysis tools and concepts and their application to decisions faced by agribusiness. Emphasis on financial analysis and planning principles, capital budgeting, debt structure and financing, options, present value concepts, and risk analysis.
Recommended Background: Senior-level finance course.
520 Research Methodology in Agricultural Economics (1) Overview of the logic and process of economic inquiry. Topics covered include the relationship between theory and applied research, problem formulation, definition of research problems, development of research problem statements with goals and objectives, and presentation and interpretation of results.

524 Econometric Methods in Agricultural Economics (3) Application of statistical methods to agricultural economic models; estimation of supply, demand and production functions; microeconomic forecasting models; interpretation of results.
Recommended Background: Calculus and statistics courses.
525 Agribusiness Operations Research Methods (3) Applications of operations research methods and concepts for agribusiness. Theoretical background and applied considerations of each technique with emphasis on applications.
Computer and other applications of each technique for relevant agribusiness problems.
Recommended Background: Calculus and intermediate microeconomics courses.
530 Agricultural Policy Analysis (3) Evaluation of public policy as related to agricultural industry and rural areas.
542 Advanced Agribusiness Production Decisions (3) Decision theory concepts and tools for analyzing agribusiness decision problems; modeling choices using decision trees and sensitivity analysis; incorporating uncertainty into decision models using probability theory and simulation; modeling preferences using utility theory and risk attitudes.
(RE) Prerequisite(s): 505.
550 Advanced Agribusiness Marketing (3) Use of economic concepts in agribusiness marketing decisions. Analysis of agricultural markets; buyer behavior in food and fiber markets; competitive environment. Profitability analysis of marketing and distribution decisions; market planning and strategy; product evaluation and new product introduction; pricing decisions.
(RE) Prerequisite(s): 505.
552 Advanced Agribusiness Seminar (3) A capstone course for students in the Master of Science non-thesis agribusiness concentration. Centers on discussion and analysis of real-world management case studies. Students are responsible for the development of a comprehensive written case study analyzing a real-world agribusiness management problem. Major writing and oral presentation emphasis.
Recommended Background: 2 completed semesters of the agricultural and resource economics MS program.

570 Advanced Natural Resource Economics (3) Analysis of natural resource allocation issues; applied welfare economics, external effects and evaluation of public policy.
Recommended Background: Calculus and intermediate microeconomics.
593 Special Topics in Agricultural Economics (1-3) Topics to be assigned.
Grading Restriction: Satisfactory/No Credit grading only.
Repeatability: May be repeated. Maximum 9 hours.
595 Professional Internship (3) Supervised internship experience with appropriate agribusiness firm.
600 Doctoral Research and Dissertation (3-15)
Grading Restriction: P/NP only.
Repeatability: May be repeated
Registration Restriction(s): Minimum student level - graduate.
640 Agricultural Production and Supply Analysis (3) Advanced topics in agricultural production economics and supply analysis with emphasis on optimization modeling, duality, flexible production systems, efficiency and nonparametric analysis, risk, contracting, incentive systems, cooperative efforts, and the roles of information, insurance and credit.
(RE) Prerequisite(s): Economics 511 and 512.
Registration Restriction(s): Minimum student level - graduate.
650 Agricultural Markets and Demand Analysis (3) Advanced theory and topics in market and price analysis; technical and pricing efficiency in agricultural markets; interregional and international competition; consumer demand.
(RE) Prerequisite(s): Economics 511 and 512.
Registration Restriction(s): Minimum student level - graduate.
670 Advanced Topics in Natural Resource Economics (3) Applications of microeconomic theory to the use, allocation and control of scarce, exhaustible, and renewable natural resources, including soil, water, minerals, forests, and fish, in both static and dynamic contexts. Optimal control theory, dynamic programming, supply of, and demand for, natural resources, social versus private decisions, market and non-market considerations, regulation, uncertainty, property rights, equity considerations, and landscape pattern and change.
Recommended Background: Advanced microeconomics course.
Registration Restriction(s): Minimum student level - graduate.

Equivalency Table

| Current Courses <br> (047) (AGEC) Agricultural Economics | Equivalent Courses effective Fall 2011 <br> (AREC) Agricultural and Resource Economics |
| :--- | :--- |
| 412 | 412 |
| 420 | 420 |
| 430 | 430 |
| 442 | 442 |
| 445 | 445 |
| 470 | 470 |
| 500 | 500 |
| 502 | 502 |
| 505 | 505 |
| 512 | 512 |
| 520 | 520 |
| 524 | 524 |
| 525 | 525 |
| 530 | 530 |
| 542 | 542 |
| 550 | 550 |
| 552 | 552 |
| 570 | 570 |
| 593 | 593 |
| 595 | 595 |
| 600 | 600 |
| 640 | 640 |
| 650 | 650 |
| 670 | 670 |

SUPPORTING INFORMATION: Rationale: Change the discipline name to match the Department name and to reflect the content of the discipline. Course format and location: No change. Impact on other units: None. Financial impact: None.

## ADD NEW 400-LEVEL COURSES FOR GRADUATE CREDIT

472 Natural Resource Economics (3) Economic analysis of natural resource use and conservation with emphasis on land, water and other renewable resources. Principles for benefit-cost analyses of natural resource projects and policies. Methods for valuation of non-market impacts associated with natural resource use. Sustainability as an economic concept.
(RE) Prerequisite(s): 320.
460 Rural Economic Development (3) Use of economic principles in understanding rural economic development at community and regional levels, emphasizing the linkages between rural and urban communities, business location decisions, and how geography shapes markets. Integrating historical and current information, students will explore efficiency and equity as driving forces behind public and private sector policy to encourage, manage and forecast domestic and international development.
(RE) Prerequisite(s): 320.

## DEPARTMENT OF ANIMAL SCIENCE

## (113) (ANSC) Animal Science

## DROP SECONDARY CROSS-LISTED COURSE

## 556 Physiology of Hormones (3)

Cross-listed: (See Biochemistry and Cellular and Molecular Biology 552.)
SUPPORTING INFORMATION: Rationale: Biochemistry and Cellular and Molecular Biology department no longer wants primary role in offering course. Course format and location: NA; Impact on other departments: None; Animal Science department will take on primary role at a later date after instructors are identified and agree on course content. Financial impact: none.

## DEPARTMENT OF BIOSYSTEMS ENGINEERING AND SOIL SCIENCES

## (194) (BSET) Biosystems Engineering Technology

ADD
504 Professional Presentation Seminar (1) Formal presentation to a professional or lay audience on topics related to Agricultural Systems Technology, Construction Management, Off-road Machinery, or Land Surveying. Includes obtaining invitation, host negotiation, planning, logistics, promotion, media set-up, delivery, and audience response. Must receive prior review and approval by faculty before presentation.
Repeatability: May be repeated. Maximum 2 hours.
Grading Restriction: Satisfactory/No Credit grading only.
505 Professional Internship (3) Professional experience related to obtaining new skill sets, career networking, and professional knowledge obtained within the Agricultural Systems Technology, Construction Science, Off-road Machinery, or Land Surveying industry. Requires interaction with academic degree program. Minimum 10 hrs of industry experience per week. Requires faculty-approved bi-weekly work logs and supervisor's satisfactory final evaluation.
Repeatability: May be repeated. Maximum 6 hours.
Grading Restriction: Satisfactory/No Credit grading only.

REVISE TO ADD VARIABLE TITLE
508 Special Problems in Biosystems Engineering Technology (1-3)
(345) (ESS) Environmental and Soil Sciences

REVISE TO ADD VARIABLE TITLE
593 Special Problems in Environmental and Soil Science (1-3)
601 Special Topics in Soil Science (1-3)

## DEPARTMENT OF ENTOMOLOGY AND PLANT PATHOLOGY

## (341) (EPP) Entomology and Plant Pathology

ADD
527 Basic Analytical Tools (3) Overview of tools and applications for conducting research in entomology, plant pathology and related biological disciplines. Topics will range from laboratory and chemical safety to basic microscopy and sampling strategies. Will include lectures and hands-on training using a modular approach with 1 to 2 -week segments. Course is open to upper-level undergraduate (junior or senior), Masters, and PhD students.

528 Advanced Analytical Tools (3) An overview of tools and applications for conducting advanced molecular and analytical research in entomology, plant pathology and related sciences. Topics will range from DNA/RNA extraction, amplification, sequencing, and analysis to protein separation and analysis. Will include lectures and hands-on training using a modular approach divided into 1 to 2-week segments. Course is open to upper-level undergraduate (junior or senior), Masters, and PhD students.

DROP
451 Plant Tissue Culture (3)
532 Special Problems in Plant Pathology (1-4)
545 Plant Microtechnique (1)
SUPPORTING INFORMATION: Rationale: Course 532 is being rolled into the revised 531. Course 545 does not draw enough students to be cost-effective. Ad-hoc need will be served through EPP 531.

## 544 Protein Gel Electrophoresis (1)

550 Molecular Epidemiology (3) - Already dropped. Dropped in October with "Courses Not Taught"

## 555 Basal Hexapods (2)

628 History of Phytopathology (1)

## ADD EXISTING 400-LEVEL COURSE FOR GRADUATE CREDIT

411 Forest Insects and Diseases (3) Insects and pathogens associated with trees and shrubs will be identified and their impacts on host plants evaluated.

## REVISE TO REMOVE CREDIT RESTRICTION

## 515 Physiology of Plant Disease (3)

Formerly: Credit Restriction: Students taking 515 cannot receive credit for 615.
Rationale: Equivalent 600-level course (EPP 615) was dropped previously due to lack of sufficient numbers of students.

REVISE TITLE AND REPEATABILITY, AND REQUEST VARIABLE TITLE
531 Special Problems in Entomology and Plant Pathology (1-3)
Repeatability: May be repeated. Maximum 9 hours.

## DEPARTMENT OF PLANT SCIENCES

(791) (PLSC) Plant Sciences

DROP
427 Management and Administration of Public Horticulture Institutions (2)
446 Horticultural Therapy (3)

ADD
515 Agroecology (3) Application of ecological concepts to management of horticultural and agronomic cropping systems. Examination of structure and function of agroecosystems, system-level interactions among agroecosystem components, and assessment of sustainability of cropping systems from environmental, economic, and social perspectives. Focus on organic and other alternative cropping systems.
Contact hour distribution: 2 hour lecture; 12 -hour lab.
Credit Restriction: Students may not receive credit for both 415 and 515.

## ADD AND REQUEST APPROVAL FOR VARIABLE TITLE AND APPROVAL FOR NON-STANDARD FORMAT

555 History and Culture of International Gardens and Landscapes (3) International travel experience will provide opportunities to learn how historic European estates, gardens, and arboreta reflect the climate, topography, history, philosophical social structure, art and politics at the time of their creation. Will focus on observation of local plant material, study of different garden and landscape design styles, and will foster an appreciation of international cultures.
Repeatability: May be repeated. Maximum 6 hours.
Supporting Information: Spring Mini Term. Course format and location: off campus-international travel, non-standard format. Impact on other academic units: None. Financial impact: will be taught by existing faculty.

REVISE DESCRIPTION
430 Greenhouse Management (3) Principles of greenhouse operation and management for commercial crop production Greenhouse construction and operation, crop scheduling, and cost accounting. Environmental inputs and cultural practices as they affect plant physiological processes and influence plant growth and development. Weekend field trips may be required.

## II. PROGRAM CHANGES

## DEPARTMENT OF AGRICULTURAL AND RESOURCE ECONOMICS

```
DROP THE FOLLOWING MAJOR, DEGREES, AND CONCENTRATIONS
    Agricultural Economics - MS
    Agribusiness concentration
    Agricultural Economics concentration
    Natural Resource Economics concentration
    Agricultural Economics - Dual MS-MBA - Agribusiness concentration
ADD THE FOLLOWING MAJOR, DEGREES, AND CONCENTRATIONS
    Agricultural and Resource Economics - MS
    Agribusiness concentration
    Agricultural Economics concentration
    Natural Resource Economics concentration
Agricultural and Resource Economics - Dual MS-MBA - Agribusiness concentration
```

SUPPORTING INFORMATION: Rationale: The name of the department changed in 2009 from Agricultural Economics to Agricultural and Resource Economics. The Department's major includes concentrations in Agricultural Economics, Agribusiness, and Natural Resource Economics. The name change of the MS major will more closely match the contents of the department's concentrations and courses.

From: High, Katherine Noel
Sent: Tuesday, January 18, 2011 10:42 AM
To: Beyl, Caula Ann
Cc: Vaughan, Edee (Edee)
Subject: RE: Approval for name change of AgEcon Program
Caula,
I apologize for the delay in getting back to you. I wanted to check the files and make sure we had a record of everything. We do, and all is well.

I don't know what kind of terminology you need to use with the graduate council, but if possible, can this be characterized as a name change rather than dropping a major and adding a major?

For THEC, all we need to do is submit for their information any name changes (usually done in June, after we receive information from the campuses.)

New Majors need to be approved by them.
We need to be informed, since we have to keep up with an inventory of all programs.
Long answer-this is fine.
Thanks,
Katie

From: Beyl, Caula Ann
Sent: Thursday, January 13, 2011 9:29 PM
To: High, Katherine Noel
Cc: Gerloff, Delton C; Cox, Catherine O
Subject: Approval for name change of AgEcon Program
Katie,

So that we may submit this requested program name change with our curricular change materials to the Graduate Council, please approve and indicate that no UT System action beyond your level is required for the following change:

Drop the major: Agricultural Economics
Add the major: Agricultural Resource Economics
Rationale for the action: The former Department of Agricultural Economics received approval from Dr. Joe DiPietro (then Vice-President of the Institute of Agriculture) to change its name to the Department of Agricultural and Resource Economics effective January 1, 2010. The Department's M.S. degree major has been named Agricultural Economics, but has for a number of years had concentrations in both agricultural economics and natural resource economics. In the interest of consistency with the new department name and to more accurately represent to potential students the breadth of concentration options available, the Department requests approval of a change in the name of the M.S. major to Agricultural and Resource Economics.

Caula Beyl
Dean, College of Agricultural Sciences and Natural Resources
cbeyl@utk.edu
865-974-7303

## REVISE DEPARTMENT INTRODUCTORY PARAGRAPH

In the 2010-11 Graduate Catalog revise the last two sentences of the introductory paragraph as follows:
...paper in one of those fields. Students interested in pursuing doctoral studies in agricultural and resource economics may do so with one of their two fields in Agricultural and Resource Economics (see Department of Economics catalog entry for detailed information). The dissertation research of students within the Economics PhD whose major field is Agricultural and Resource Economics can be supervised by Department of Agricultural and Resource Economics faculty.

REVISE DUAL MS-MBA PROGRAM - AGRICULTURAL ECONOMICS TO NEW NAME: AGRICULTURAL AND RESOURCE ECONOMICS

In the 2010-11 Graduate Catalog revise heading and text below to reflect the new name of major. Text not included does require any revisions. Also, revise text to remove showcase.

## Dual MS-MBA Program - Agricultural and Resource Economics

The College of Business Administration and the College of Agricultural Sciences and Natural Resources offer a dual program leading to the conferral of both the Master of Business Administration and the Master of Science with a concentration in agribusiness in the agricultural and resource economics major. The dual program can be accomplished with approximately 20 fewer hours of course work than would be required to earn both degrees separately.

Admission
Applicants for the dual MS-MBA program must make separate applications to and be accepted by Graduate Admissions for the Master of Business Administration and the Master of Science with a major in agricultural and resource economics. Students should indicate on both applications the intent to pursue the dual MS-MBA program. Students accepted for both the MBA and MS degree programs will be assigned to an advisor from the MBA program and another from the agricultural and resource economics MS program. These advisors will be responsible for course approval and supervision of the students' progress through the dual program.

## Requirements

The dual MS-MBA curriculum consists of 60 hours of coursework, 30 hours for the Master of Business Administration and 30 hours for the Master of Science. A minimum of 30 hours must be from the College of Business Administration. Of the 30 hours required for the Master of Science, a minimum of 21 hours must be at the 500 level, excluding 500 and 502, a minimum of 21 hours must be from the Department of Agricultural and Resource Economics, and nine hours of electives may be from the College of Business Administration, the Department of Agricultural and Resource Economics, and/or other courses approved by the student's Master's Committee. A written comprehensive exam on the material covered in agricultural and resource economics courses is required during the spring semester of the second year. An oral exam is also required for students who receive a marginal pass on the written exam.

The dual degree candidate must satisfy the curriculum and graduation requirements of the agricultural and resource economics major and the College of Business Administration. Students withdrawing from the dual degree program before completing both degrees will not receive credit toward graduation in either degree program for courses taken in the other degree program, except as such courses qualify for credit without regard to the dual degree program. The MS and the MBA degrees will be awarded upon successful completion of the requirements of the dual program.

## All changes effective fall 2011

## PART I: COURSE CHANGES

DEPARTMENT OF ANTHROPOLOGY
(122) (ANTH) Anthropology

ADD
584 Seminar in Bioarchaeology (3) Method and theory in Bioarchaeology, incorporating aspects of Biological Anthropology and Anthropological Archaeology. The focus is on traditional methodological issues and the application of recent social theory to the analysis of the mortuary record.
Recommended Background: Human osteology and basic bioarchaeology.
586 Anthropological Genetics (3) Method and theory of Anthropological Genetics, applying methods from genetics and genomics to issues in Anthropology. Explores recent innovations in the field with respect to human variation and human origins.
Recommended Background: Basic genetics and evolutionary biology.

## SCHOOL OF ART

DROP THE FOLLOWING EIGHT ACADEMIC DISCIPLINES AND ALL COURSES
(135) (ACER) Art Ceramics

421 Advanced Ceramic Sculpture
422 Advanced Pottery
424 Ceramics: Clays and Glazes
429 Ceramics: Special Topics
521 Graduate Ceramics I
525 Graduate Ceramics II
593 Independent Study
595 Visiting Artist Seminar
599 Project in Lieu of Thesis

## (136) (ADES) Art Design/Graphic

400 Typography
401 Experiments in Sequencing (See Art Media Arts 401.)
402 Experiments in Space (See Art Media Arts 402.)
403 Experiments in Systems (See Art Media Arts 403.)
405 Computer Enhanced Graphic Design
410 Advanced Typographic Investigation
425 Illustration
451 Advanced Graphic Design
452 Graphic Design Seminar
456 Graphic Design Practicum
459 Special Topics in Graphic Design
550 Studies in Graphic Design/Illustration
551 Graphic Design I
552 Graphic Design II
593 Independent Study
595 Visiting Artist Seminar
599 Projects in Lieu of Thesis

## O (137) (ADRA) Art Drawing

419 Special Topics in Drawing and Painting
511 Graduate Drawing I
512 Graduate Drawing II

593 Independent Study
595 Visiting Artist Seminar
599 Projects in Lieu of Thesis

## O (139) (AHIS) Art History

403 History of Photography
411 Art of South and Southeast Asia
415 Art of China
416 Chinese Art of the 20th- and 21st-Centuries
419 Art of Japan
425 Early Christian and Bysantine Art to 1350 (Same as Judaic Studies 425.)
431 Medieval Art of the West, 800-1400 (Same as Judaic Studies 432; Medieval Studies 432.)
441 Northern European Painting, 1350-1600 Same as Medieval Studies 441.)
442 Art of Northern Europe, 1600-1675
451 Art of Italy, 1250-1450
452 Art of Italy, 1450-1575
453 Art of Southern Europe, 1575-1700
454 Renaissance and Baroque Theory
461 Art of Southern and Eastern Africa (Same as Africana Studies 461.)
462 Art and Archeology of Ancient Africa (Same as Africana Studies 462.)
463 Arts of the African Diaspora (Same as Africana Studies 463.)
464 Oceanic Art
470 African-American Art (Same as Africana Studies 470.)
472 History of 20th-Century American Art
473 19th-Century American Art
475 History of 19th-Century Painting and Sculpture in Europe
476 History of 20th-Century Painting and Sculpture in Europe
479 Special Topics in Art History
489 Studies in Art History
571 Studies in Medieval Art
572 Studies in Italian Renaissance Art
576 Studies in Asian Art
579 Special Topics in Art History

## O (134) (AMED) Art Media Arts

401 Experiments in Sequencing (Same as Art Design/Graphic 401.)
402 Experiments in Space (Same as Art Design/Graphic 402.)
403 Experiments in Systems (Same as Art Design/Graphic 403.)
431 Photography III
432 Performance as Art
433 History of Film and Modern and Contemporary Art (Same as Cinema Studies 433.)
434 Sound Art
435 Cinematography as Art (Same as Cinema Studies 435.)
436 Video Art (Same as Cinema Studies 436.)
439 Special Topics in Media Arts
531 Photography I
532 Photography II
535 Media Arts I
536 Media Arts II
577 Studies in Media as Art
593 Independent Study
595 Visiting Artist Seminar
599 Projects in Lieu of Thesis

## O (138) (APAI) Art Painting

413 Painting IV
419 Special Topics in Drawing and Painting
513 Graduate Painting I
514 Graduate Painting II

593 Independent Study
595 Visiting Artist Seminar
599 Projects in Lieu of Thesis

## O (132) (APRI) Art Printmaking

461 Advanced Print Workshop
469 Special Topics in Printmaking
561 Printmaking I
562 Printmaking II
563 Printmaking III
564 Printmaking IV
593 Independent Study
595 Visiting Artist Seminar
599 Projects in Lieu of Thesis

## O (143) (ASCU) Art Sculpture

441 Advanced Sculpture
449 Special Topics in Sculpture
541 Graduate Sculpture I
542 Graduate Sculpture II
593 Independent Study
595 Visiting Artist Seminar
599 Projects in Lieu of Thesis

## ADD ACADEMIC DISCIPLINE, SUBJECT CODE, AND COURSES

## (ARTA) Art Two-Dimensional Arts

ARTA 413 Painting IV (6) Advanced painting stressing individual concepts and personal expression with varied media.
Repeatability: May be repeated. Maximum 12 hours.
(RE) Prerequisite(s): 313.
Comment(s): Total of 12 hours required for students in the painting concentration.
ARTA 419 Special Topics in Drawing and Painting (3) Student- or instructor-initiated course offered at convenience of department to enhance and expand the painting, drawing, and watercolor curriculum.
Repeatability: May be repeated. Maximum 12 hours.
(RE) Prerequisite(s): Art 101 and Art 103.
(RE) Corequisite(s): Art 102.
ARTA 431 Photography III (4) Individual development of photographic problems and techniques.
Repeatability: May be repeated. Maximum 12 hours.
(RE) Prerequisite(s): 331.
ARTA 461 Advanced Print Workshop (1-6) Individual and collaborative studio work encompassing theory and practice in intaglio, lithography, relief printing, screen printing, monoprint, papermaking, book arts, and/or photo-print processes. Repeatability: May be repeated. Maximum 12 hours.
(RE) Prerequisite(s): 361.
ARTA 469 Special Topics in Printmaking (3-6) Student- or instructor-initiated course offered at convenience of department.
Repeatability: May be repeated. Maximum 12 hours.
(RE) Prerequisite(s): 361.
Comment(s): Or consent of instructor.

ADD ACADEMIC DISCIPLINE, SUBJECT CODE, AND COURSES

## (ARTB) Art Three-Dimensional Arts

ARTB 421 Advanced Ceramic Sculpture (6) Continued investigation of sculpture with a focus on idea development and individual direction. Will address clay preparation, clay finishing and kiln firing.
Repeatability: May be repeated. Maximum 18 hours.
(RE) Prerequisite(s): 323.
ARTB 422 Advanced Pottery (6) Continued investigation of utilitarian forms with a focus on idea development and individual direction. Will address clay preparation, glazing and kiln firing.
Repeatability: May be repeated. Maximum 18 hours.
(RE) Prerequisite(s): 323.
ARTB 424 Ceramics: Clays and Glazes (3) Clay chemistry, clay bodies, glaze theory, and calculation. Formulating, mixing, and testing of clay bodies and glaze formulas.
(RE) Prerequisite(s): 320.
ARTB 429 Ceramics: Special Topics (3) Student- or instructor-initiated courses to be offered at convenience of department.
Repeatability: May be repeated. Maximum 12 hours.
(RE) Prerequisite(s): 320.
ARTB 441 Advanced Sculpture (6) Individual development of sculptural problems and techniques. Students work independently while participating in group projects, critique, and discussion.
Repeatability: May be repeated. Maximum 18 hours.
Recommended Background: 6 hours of 300-level sculpture courses.
ARTB 442 Senior Seminar (2) Investigation of professional practices and career opportunities in the field of sculpture. Includes portfolio development, preparation for exhibitions, and public commissions.

ARTB 449 Special Topics in Sculpture (6) Student- or instructor-initiated course offered at convenience of department. Repeatability: May be repeated. Maximum 18 hours.
Comment(s): Successful completion of any portfolio review required.

ADD ACADEMIC DISCIPLINE, SUBJECT CODE, AND COURSES
(ARTC) Art Four-Dimensional Arts
ARTC 401 Experiments in Sequencing (4) Advanced study and development of art or design works based on the concepts and techniques of sequencing.
Cross-listed: (Same as Art Design/Graphic 401.)
Repeatability: May be repeated. Maximum 16 hours.
Recommended Background: Any 4-D Arts course or Art Design/Graphic 405 or permission of the instructor.
ARTC 402 Experiments in Space (4) Advanced study and development of art or design works based on the concepts and techniques of spatiality.
Cross-listed: (Same as Art Design/Graphic 402.)
Repeatability: May be repeated. Maximum 16 hours.
Recommended Background: Any 4D Arts course or Art Design/Graphic 405 or permission of instructor.
ARTC 403 Experiments in Systems (4) Advanced study and development of art or design works based on systemic concepts and techniques.
Cross-listed: (Same as Art Design/Graphic 403.)
Repeatability: May be repeated. Maximum 16 hours.
Recommended Background: Any 4-D Arts course or Art Design/Graphic 405 or permission of the instructor.
ARTC 432 Performance as Art (4) Advanced study and development of concepts and techniques for the creation of performance as an art form.
Repeatability: May be repeated. Maximum 16 hours.
(RE) Prerequisite(s): 232.
ARTC 433 History of Film and Modern and Contemporary Art (3) Study of the development and interaction between the cinematic arts and the visual arts within the context of 20th- and 21 st-century art history.
Cross-listed: (Same as Cinema Studies 430.)
Comment(s): Available for art history credit.
ARTC 434 Sound Art (4) Advanced study and development of concepts and techniques for the creation of sound art with a focus on multidisciplinary forms.
Repeatability: May be repeated. Maximum 16 hours.
(RE) Prerequisite(s): 234.
ARTC 435 Cinematography as Art (4) Continued development of concepts and techniques for the creation of film as an art form with an emphasis on individual projects.
Cross-listed: (Same as Cinema Studies 431.)
Repeatability: May be repeated. Maximum 12 hours.
(RE) Prerequisite(s): 235.

ARTC 436 Video Art (4) Continued development of concepts and techniques for the creation of video works as an art form with an emphasis on individual projects.
Cross-listed: (Same as Cinema Studies 432.)
Repeatability: May be repeated. Maximum 12 hours.
(RE) Prerequisite(s): 236.
ARTC 439 Special Topics in Four-Dimensional Arts (3) Student- or instructor- initiated course offered at convenience of department.
Repeatability: May be repeated. Maximum 12 hours.

ADD ACADEMIC DISCIPLINE, SUBJECT CODE AND COURSES

## (ARTD) Art Design/Graphic

ARTD 400 Typography (3) Principles of typography, as well as classical and contemporary type forms, as vehicles for communication. An intensive introduction to the fundamentals of type, from individual letterforms to large bodies of textual information. Attention to formal, technological, rhetorical, and historical issues.
(RE) Prerequisite(s): 252 and 350.
(RE)Corequisite(s): 351.
ARTD 401 Experiments in Sequencing (4)
Cross-listed: (See Art Four-Dimensional Arts 401.)
ARTD 402 Experiments in Space (4)
Cross-listed: (See Art Four-Dimensional Arts 402.)
ARTD 403 Experiments in Systems (4)
Cross-listed: (See Art Four-Dimensional Arts 403.)
ARTD 405 Computer Enhanced Graphic Design (3) Exploration of new technologies and their significance to graphic design.
Repeatability: May be repeated. Maximum 12 hours.
(RE) Prerequisite(s): 351 and 400.
(RE) Corequisite(s): 352.
ARTD 410 Advanced Typographic Investigation (3) Expands on principles introduced in Typography (Art Design/Graphic 400). Projects will include work in reflective as well as electronic environments with an emphasis on personal exploration.
(RE) Prerequisite(s): 400.
ARTD 425 Illustration (3) Develops skills and critical analysis for effective visual communication. Projects will explore the relationship between image and meaning. Students will explore a variety of media as they develop a personal visual vocabulary.
Repeatability: May be repeated. Maximum 6 hours.
(RE) Prerequisite(s): Art 101, Art 102, and Art 103.
ARTD 451 Advanced Graphic Design 4) Theory and techniques of visual problem-solving as applied to advanced applications of graphic design.
(RE) Prerequisite(s): 352.
ARTD 452 Graphic Design Seminar (4) Discussion of design and professional issues including politics, economics, and ethics for the graphic designer. Culminates in a student-initiated project.
(RE) Prerequisite(s): 451.
ARTD 456 Graphic Design Practicum (1-12) Practical work experience in the graphic design field. Must be pre-arranged with the department.
Repeatability: May be repeated. Maximum 12 hours.
(RE) Prerequisite(s): 351 and 356.
ARTD 459 Special Topics in Graphic Design (3) Student- or instructor- initiated course offered at discretion of department
Repeatability: May be repeated. Maximum 12 hours.
Registration Permission: Consent of instructor.

## (ARTH) Art History

ARTH 403 History of Photography (3) Survey of the history of photography from the introduction of the daguerreotype and calotype to more recent trends. Emphasis will be placed on aesthetics and the use of photography as a medium for artistic expression.

ARTH 411 Art of South and Southeast Asia (3) Survey of the art and architecture of the Indian subcontinent and Southeast Asia from 2000 BC to the 20th century. The major achievements of each period are examined in relation to their religious, political, and social contexts.

ARTH 413 Art of China I (3) Survey of the art and architecture of China from the Neolithic period through the Song dynasty (968-1279). The major achievements of each period are examined in relation to their religious, political, and social contexts.

ARTH 414 Art of China II (3) Survey of the art and architecture of China from the Yuan period through the Qing dynasties (1644-1911). The major achievements of each period are examined in relation to their religious, political, and social contexts.

ARTH 416 Chinese Art of the 20th and 21st Centuries (3) Survey of Chinese art from the late 19th century through the present. Hong Kong, Taiwanese, and expatriate artists are also considered.

ARTH 419 Art of Japan (3) Survey of the art and architecture of Japan from the Neolithic period to the 20th century. The major achievements of each period are examined in relation to their religious, political, and social contexts.

ARTH 425 Early Christian and Byzantine Art to 1350 (3) Art in Italy and the Eastern Empire from the beginnings of Christian art to c. 1350. Mosaic and painting, sculpture and architecture.
Cross-listed: (Same as Judaic Studies 426.)
ARTH 431 Medieval Art of the West, 800-1400 (3) Western European art of the Dark Ages, Romanesque, and Gothic periods.
Cross-listed: (Same as Judaic Studies 432; Medieval Studies 432.)
ARTH 441 Northern European Painting, 1350-1600 (3) From courtly art of late Middle Ages to Northern Renaissance. Jan van Eyck, Roger van der Weyden, and Dürer; early printmakers.
Cross-listed: (Same as Medieval Studies 442.)
ARTH 442 Art of Northern Europe, 1600-1675 (3) Concentrated study of Bruegel, Rubens, Rembrandt, Georges de La Tour, Vermeer, Poussin, and Hals.

ARTH 451 The Art of Italy, 1250-1450 (3) Development of exploration of naturalism. Revival of antiquity and development of theories of perspective in the Early Renaissance. Including Duccio, Giotto, Masaccio, Donatello, Botticelli. Cross-listed: (Same as Medieval Studies 452.)

ARTH 452 Art of Italy, 1450-1575 (3) Concentrated study of Leonardo da Vinci, Michelangelo, Titian, Raphael, Pontormo, and Giorgione.

ARTH 453 Art of Southern Europe, 1575-1700 (3) Concentrated study of Caravaggio, Bernini, and Italian Baroque developments in all media. Spanish Baroque painting and sculpture with special attention to Velazquez.

ARTH 454 Renaissance and Baroque Theory (3) Addresses the theory of Western art in the early modern period with emphasis on the development and evolution in European art during the Renaissance and Baroque periods.
(RE) Prerequisite(s): 172 and 173.
ARTH 461 Art of Southern and Eastern Africa (3) Art traditions of the eastern and southern regions of Africa. Sculpture, painting, pottery, textiles, architecture, and human adornment will be examined. Some ancient Stone and Iron Age traditions will be examined, but the main emphasis will be on the diverse ethnic and regional art traditions practiced in the area from the 19th century to the present.
Cross-listed: (Same as Africana Studies 464.)
ARTH 462 Art and Archaeology of Ancient Africa (3) Historical art traditions of sub-Sahara Africa. Topics to be covered include prehistoric rock paintings, art from archaeological sites and ancient kingdoms. The time period covered ranges from the first and second millennia $B C$ for some of the early terracotta sculpture and rock paintings, the 11th through 19th centuries AD for the later ancient kingdoms.
Cross-listed: (Same as Africana Studies 465.)
ARTH 463 Arts of the African Diaspora (3) Examines the aesthetic, philosophical and religious patterns of the African descendants of Brazil, Surinam, the Caribbean and the United States. Emphasis will be placed on the full range of art forms, including the sculptural and performance traditions, as well as architecture, textile, basketry, and pottery art forms. Cross-listed: (Same as Africana Studies 466.)

ARTH 464 Oceanic Art (3) Concentrated study of selected sculpture, textiles, architecture and other traditional art forms of Polynesia, Micronesia, and Melanesia. Objects are discussed on the basis of style, style relationship, iconography and the uses to which they were put in their traditional religious, political, and social contexts.

ARTH 470 African-American Art (3) Traces the artistic and social legacy of African-American art from the eighteenth century to the present day. Specifically, this class will focus on the ways in which artists used creativity to confront, deny, or complicate understandings of racial identity and racism. Examines broad scope of artistic production including painting, sculpture, photography, multi-media, fiction writing, and video art.
Cross-listed: (Same as Africana Studies 471.)
ARTH 472 History of 20th-Century American Art (3) Developments in architecture, painting, and design from 1900.
ARTH 473 19th-Century American Art (3) Examines painting, sculpture, and print culture from the Revolutionary War to the turn of the 20th century.

ARTH 475 History of 19th-Century Painting and Sculpture in Europe (3) The evolution of Romanticism, Neoclassicism, and Realism in Europe, including the innovations of Manet, Impressionism, Cezanne, Post-Impressionism, Art Nouveau, and Symbolism.

ARTH 476 History of 20th-Century Painting and Sculpture in Europe (3) Development of the Modern and PostModern movements in Europe. Investigation of the progression of abstraction through more recent conceptual trends. Analysis of the work of individual artists such as Picasso, Matisse, and many others.

ARTH 479 Special Topics in Art History (3) Student- or instructor-initiated course offered at convenience of department. Repeatability: May be repeated. Maximum 12 hours.

ARTH 489 Studies in Art History (3) Concentration in individually selected area.
Repeatability: May be repeated. Maximum 6 hours.
Registration Permission: Consent of instructor.
ARTH 494 Individual Problems (3)
Repeatability: May be repeated. Maximum 12 hours.
Registration Permission: Consent of instructor.
(140) (ART) Art

ADD
ART 511 Graduate Drawing I (2-6)
Repeatability: May be repeated. Maximum 10 hours.
ART 512 Graduate Drawing II (2-6)
Repeatability: May be repeated. Maximum 10 hours.
ART 513 Graduate Painting I (2-6)
Repeatability: May be repeated. Maximum 10 hours.
ART 514 Graduate Painting II (2-6)
Repeatability: May be repeated. Maximum 10 hours.
ART 521 Graduate Ceramics I (2-5)
Repeatability: May be repeated. Maximum 10 hours.
ART 525 Graduate Ceramics II (2-5)
Repeatability: May be repeated. Maximum 10 hours.
ART 531 Graduate Photography I (2-6)
Repeatability: May be repeated. Maximum 10 hours.
ART 532 Graduate Photography II (2-6)
Repeatability: May be repeated. Maximum 10 hours.
ART 535 Graduate Media Arts I (2-6)
Repeatability: May be repeated. Maximum 10 hours.
ART 536 Graduate Media Arts II (2-6)
Repeatability: May be repeated. Maximum 10 hours.
ART 541 Graduate Sculpture I (2-6)
Repeatability: May be repeated. Maximum 10 hours.
ART 542 Graduate Sculpture II (2-6)
Repeatability: May be repeated. Maximum 10 hours.
ART 550 Graduate Studies in Graphic Design/lllustration History (3) Design and illustration c. 1850 to present. Repeatability: May be repeated. Maximum 6 hours.

Comment(s): Enrollment is limited to MFA candidates.
ART 551 Graduate Graphic Design I (2-6)
Repeatability: May be repeated. Maximum 10 hours.

## ART 552 Graduate Graphic Design II (2-6)

Repeatability: May be repeated. Maximum 10 hours.
ART 561 Graduate Printmaking I (2-6) Directed exploration of any or all matrix-based imaging: intaglio, relief, lithography, screen printing, photo-print methods, and monoprint.
Repeatability: Not repeatable. May be taken once for 2-6 hours.
ART 562 Graduate Printmaking II (2-6) Directed exploration of any or all matrix-based imaging: intaglio, relief, lithography, screen printing, photo-print methods, and monoprint.
Repeatability: Not repeatable. May be taken once for 2-6 hours.
(RE) Prerequisite(s): 561.
ART 563 Graduate Printmaking III (2-6) Directed exploration of any or all matrix-based imaging: intaglio, relief, lithography, screen printing, photo-print methods, and monoprint.
Repeatability: Not repeatable. May be taken once for 2-6 hours.
(RE) Prerequisite(s): 561 and 562.
ART 564 Graduate Printmaking IV (2-6) Directed exploration of any or all matrix-based imaging: intaglio, relief, lithography, screen printing, photo-print methods, and monoprint.
Repeatability: Not repeatable. May be taken once for 2-6 hours.
(RE) Prerequisite(s): 561, 562, and 563.
ART 577 Graduate Studies in Media as Art (3) Selected topics in theory and history of media as art form. Repeatability: May be repeated. Maximum 9 hours.

ART 599 Projects in Lieu of Thesis (10)
Grading Restriction: Satisfactory/No Credit grading only.
Repeatability: May be repeated. Maximum 20 hours.
Comment(s): Completion of all graduate course work and successful second-year evaluation by graduate faculty required.
Credit Level Restriction: Graduate credit only.
Registration Restriction(s): Minimum student level - graduate.
Rationale: For all Art course drops and adds, Art is reorganizing courses into Two-Dimensional, Three-Dimensional, and Four-Dimensional Arts and changing subject codes for Art Design/Graphic and Art History courses. The 500-level courses are being added back under the ART academic discipline. Impact on other units: Some courses cross-listed with Africana Studies, Cinema Studies, Judaic Studies, and Medieval Studies. Changes for those programs have also been made. Financial impact: none.

REVISE HOURS
ART 503 Theory and Practice of Art Fundamentals (3)

Equivalency Table

| Current Courses | Equivalent Courses Effective Fall 2011 |
| :--- | :--- |
| ACER 421 - Advanced Ceramic Sculpture | ARTB 421 - Advanced Ceramic Sculpture |
| ACER 422 - Advanced Pottery | ARTB 422 - Advanced Pottery |
| ACER 424 - Ceramics: Clays and Glazes | ARTB 424 - Ceramics: Clays and Glazes |
| ACER 429 - Ceramics: Special Topics | ARTB 429 - Ceramics: Special Topics |
| ACER 521-Graduate Ceramics I | ART 521-Graduate Ceramics I |
| ACER 525 - Graduate Ceramics II | ART 525 - Graduate Ceramics II |
| ACER 593 - Independent Study | ART 593 - Independent Study |
| ACER 595 - Visiting Artist Seminar | ART 595 - Visiting Artist Seminar |
| ACER 599 - Projects in Lieu of Thesis | ART 599 - Projects in Lieu of Thesis |
| ADES 400 - Typography | ARTD 400 - Typography |
| ADES 401 - Experiments in Sequencing | ARTD 401 - Experiments in Sequencing |
| ADES 402 - Experiments in Space | ARTD 402 - Experiments in Space |


| ADES 403 - Experiments in Systems | ARTD 403 - Experiments in Systems |
| :---: | :---: |
| ADES 405 - Computer Enhanced Graphic Design | ARTD 405 - Computer Enhanced Graphic Design |
| ADES 410 - Advanced Typographic Investigation | ARTD 410 - Advanced Typographic Investigation |
| ADES 425-Illustration | ARTD 425-Illustration |
| ADES 451 - Advanced Graphic Design | ARTD 451-Advanced Graphic Design |
| ADES 452 - Graphic Design Seminar | ARTD 452 - Graphic Design Seminar |
| ADES 456 - Graphic Design Practicum | ARTD 456 - Graphic Design Practicum |
| ADES 459-Special Topics in Graphic Design | ARTD 459 - Special Topics in Graphic Design |
| ADES 493 - Independent Study | ARTD 493 - Independent Study |
| ADES 495 - Visiting Artist Seminar | ARTD 495 - Visiting Artist Seminar |
| ADES 550 - Studies in Graphic Design/IIlustration History | ART 550 - Graduate Studies in Graphic Design/Illustration History |
| ADES 551-Graphic Design I | ART 551 - Graduate Graphic Design I |
| ADES 552 - Graphic Design II | ART 552 - Graduate Graphic Design II |
| ADES 593 - Independent Study | ART 593 - Independent Study |
| ADES 595 - Visiting Artist Seminar | ART 595 - Visiting Artist Seminar |
| ADRA 511-Graduate Drawing I | ART 511-Graduate Drawing I |
| ADRA 512 - Graduate Drawing II | ART 512 - Graduate Drawing II |
| ADRA 593 - Independent Study | ART 593 - Independent Study |
| ADRA 595 - Visiting Artist Seminar | ART 595 - Visiting Artist Seminar |
| ADRA 599 - Projects in Lieu of Thesis | ART 599 - Projects in Lieu of Thesis |
| AHIS 403 - History of Photography | ARTH 403 - History of Photography |
| AHIS 411-Art of South and Southeast Asia | ARTH 411-Art of South and Southeast Asia |
| AHIS 415 - Art of China | ARTH 413 - Art of China I |
| AHIS 415 - Art of China | ARTH 414 - Art of China II |
| AHIS 416 - Chinese Art of the 20th and 21st Centuries | ARTH 416-Chinese Art of the 20th and 21st Centuries |
| AHIS 419 - Art of Japan | ARTH 419 - Art of Japan |
| AHIS 425 - Early Christian and Byzantine Art to 1350 | ARTH 425 - Early Christian and Byzantine Art to 1350 |
| AHIS 431 - Medieval Art of the West, 800-1400 | ARTH 431-Medieval Art of the West, 800-1400 |
| AHIS 441 - Northern European Painting, 1350-1600 | ARTH 441 - Northern European Painting, 1350-1600 |
| AHIS 442 - Art of Northern Europe, 1600-1675 | ARTH 442-Art of Northern Europe, 1600-1675 |
| AHIS 451- The Art of Italy, 1250-1450 | ARTH 451- The Art of Italy, 1250-1450 |
| AHIS 452-Art of Italy, 1450-1575 | ARTH 452-Art of Italy, 1450-1575 |
| AHIS 453 - Art of Southern Europe, 1575-1700 | ARTH 453 - Art of Southern Europe, 1575-1700 |
| AHIS 454 - Renaissance and Baroque Theory | ARTH 454 - Renaissance and Baroque Theory |
| AHIS 461 - Art of Southern and Eastern Africa | ARTH 461 - Art of Southern and Eastern Africa |
| AHIS 462 - Art and Archaeology of Ancient Africa | ARTH 462 - Art and Archaeology of Ancient Africa |
| AHIS 463 - Arts of the African Diaspora | ARTH 463 - Arts of the African Diaspora |
| AHIS 464 - Oceanic Art | ARTH 464 - Oceanic Art |
| AHIS 470 - African-American Art | ARTH 470 - African-American Art |
| AHIS 472 - History of 20th-Century American Art | ARTH 472 - History of 20th-Century American Art |
| AHIS 473-19th-Century American Art | ARTH 473-19th-Century American Art |
| AHIS 475 - History of 19th-Century Painting and Sculpture in Europe | ARTH 475 - History of 19th-Century Painting and Sculpture in Europe |
| AHIS 476 - History of 20th-Century Painting and Sculpture in Europe | ARTH 476 - History of 20th-Century Painting and Sculpture in Europe |
| AHIS 479 - Special Topics in Art History | ARTH 479 - Special Topics in Art History |
| AHIS 489-Studies in Art History | ARTH 489 - Studies in Art History |


| AHIS 494 - Individual Problems | ARTH 494 - Individual Problems |
| :---: | :---: |
| AMED 401 - Experiments in Sequencing | ARTC 401 - Experiments in Sequencing |
| AMED 402 - Experiments in Space | ARTC 402 - Experiments in Space |
| AMED 403 - Experiments in Systems | ARTC 403 - Experiments in Systems |
| AMED 431 - Photography III | ARTA 431 - Photography III |
| AMED 432 - Performance as Art | ARTC 432 - Performance as Art |
| AMED 433 - History of Film and Modern and Contemporary Art | ARTC 433 - History of Film and Modern and Contemporary Art |
| AMED 434 - Sound Art | ARTC 434 - Sound Art |
| AMED 435 - Cinematography as Art | ARTC 435-Cinematography as Art |
| AMED 436 - Video Art | ARTC 436 - Video Art |
| AMED 439 - Special Topics in Four-Dimensional Arts | ARTC 439-Special Topics in Four-Dimensional Arts |
| AMED 531 - Photography I | ART 531 - Graduate Photography I |
| AMED 532 - Photography II | ART 532 - Graduate Photography II |
| AMED 535 - Media Arts I | ART 535 - Graduate Four-Dimensional Arts I |
| AMED 536 - Media Arts II | ART 536 - Graduate Four-Dimensional Arts II |
| AMED 577 - Studies in Media as Art | ART 577 - Graduate Studies in Four-Dimensional as Art |
| AMED 593 - Independent Study | ART 593 - Independent Study |
| AMED 595 - Visiting Artist Seminar | ART 595 - Visiting Artist Seminar |
| AMED 599 - Projects in Lieu of Thesis | ART 599 - Projects in Lieu of Thesis |
| APAI 413 - Painting IV | ARTA 413 - Painting IV |
| APAI 419-Special Topics in Drawing and Painting | ARTA 419-Special Topics in Drawing and Painting |
| APAI 513 - Graduate Painting I | ART 513 - Graduate Painting I |
| APAI 514 - Graduate Painting II | ART 514 - Graduate Painting II |
| APAI 593 - Independent Study | ART 593 - Independent Study |
| APAI 595 - Visiting Artist Seminar | ART 595 - Visiting Artist Seminar |
| APAI 599 - Projects in Lieu of Thesis | ART 599 - Projects in Lieu of Thesis |
| APRI 461 - Advanced Print Workshop | ARTA 461 - Advanced Print Workshop |
| APRI 469 - Special Topics in Printmaking | ARTA 469 - Special Topics in Printmaking |
| APRI 561 - Printmaking I | ART 561 - Graduate Printmaking I |
| APRI 562 - Printmaking II | ART 562 - Graduate Printmaking II |
| APRI 563 - Printmaking III | ART 563 - Graduate Printmaking III |
| APRI 564 - Printmaking IV | ART 564 - Graduate Printmaking IV |
| APRI 593 - Independent Study | ART 593 - Independent Study |
| APRI 595 - Visiting Artist Seminar | ART 595 - Visiting Artist Seminar |
| APRI 599 - Projects in Lieu of Thesis | ART 599 - Projects in Lieu of Thesis |
| ASCU 441 - Advanced Sculpture | ARTB 441 - Advanced Sculpture |
| ASCU 442 - Senior Seminar | ARTB 442 - Senior Seminar |
| ASCU 449 - Special Topics in Sculpture | ARTB 449-Special Topics in Sculpture |
| ASCU 541 - Graduate Sculpture I | ART 541 - Graduate Sculpture I |
| ASCU 542 - Graduate Sculpture II | ART 542 - Graduate Sculpture II |
| ASCU 593 - Independent Study | ART 593 - Independent Study |
| ASCU 595 - Visiting Artist Seminar | ART 595 - Visiting Artist Seminar |
| ASCU 599 - Projects in Lieu of Thesis | ART 599 - Projects in Lieu of Thesis |

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

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ADD 400-LEVEL SECONDARY CROSS-LISTED COURSE FOR GRADUATE CREDIT
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BCMB 482 Physiology of Exercise (3)
Cross-listed: (See Kinesiology 480.)
DROP PRIMARY CROSS-LISTED COURSE
BCMB 552 Physiology of Hormones (3)
Cross-listed: (Same as Animal Science 556.)

## DEPARTMENT OF CLASSICS

(257) (CLAS) Classics

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REVISE (RE) PREREQUISITE
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CLAS 431 Selected Readings from Latin Literature (3)
(RE) Prerequisite(s): 252.
CLAS 432 Selected Readings from Latin Literature (3)
(RE) Prerequisite(s): 252.
DEPARTMENT OF ECOLOGY AND EVOLUTIONARY BIOLOGY
(278) (EEB) Ecology and Evolutionary Biology
ADD 400-LEVEL SECONDARY COURSE FOR GRADUATE CREDIT
EEB 406 Models in Biology (3)
Cross-listed: (See Mathematics 405.)
ADD 400-LEVEL COURSE FOR GRADUATE CREDIT
EEB 424 Plant Diversity and Evolution (3) A survey of the evolutionary history of photosynthetic cyanobacteria and
green plants (green algae, bryophytes, lycophytes, ferns and seed plants). A hands-on laboratory provides an in-depth
understanding of major morphological and developmental features of each group.
Contact hour distribution 2 hours lecture, 1 two hour lab.
(RE) Prerequisite(s): Biology 102 or Biology 111 or Biology 130.
DROP
EEB 410 Plant Evolutionary Morphology (4)
DEPARTMENT OF ENGLISH
(339) (ENGL) English
REVISE TO DELETE (RE) PREREQUISITE AND ADD RECOMMENDED BACKGROUND
ENGL 472 American English (3)
Recommended Background: 371, 372, or Linguistics 200, or consent of instructor.
REVISE REPEATABILITY
ENGL 580 Fiction Writing (3)
Repeatability: May be repeated. Maximum 9 hours.
ENGL 582 - Special Topics in Writing (1-3)
Repeatability: May be repeated: Maximum 9 hours.
REVISE REPEATABILITY AND DELETE (RE) PREREQUISITE
ENGL 581 Colloquium in Poetry Writing (3)
Repeatability: May be repeated. Maximum 9 hours.
(415) (GEOG) Geography

## ADD NEW 400-LEVEL COURSE FOR GRADUATE CREDIT

GEOG 445 Cities in a World System (3) Urban centers in developed and developing countries, global cities, tourist and other specialized cities, and comparative urbanism.

## REVISE DESCRIPTION, DELETE (RE) PREREQUISITE, ADD RECOMMENDED BACKGROUND

GEOG 454 Terrain Analysis (3) Generation, analysis, and application of digital elevation/terrain data. Specific topics include GIS-based terrain data models, terrain surface parameter extraction, profile analysis, viewshed and shielding analysis, and watershed delineation.
Recommended Background: GIS course and introductory physical geography or geology.

REVISE HOURS, DESCRIPTION AND REPEATABILITY, DELETE (DE) PREREQUISITE, ADD CONTACT HOUR DISTRIBUTION AND RECOMMENDED BACKGROUND

GEOG 515 Topics in Quantitative Geography (4) Multivariate analysis applied to spatial and temporal problems in geography; research problems utilizing appropriate computer programs; usefulness to geographic research of techniques developed by other disciplines.
Contact Hour Distribution: 3 hours lecture and 2 hours lab per week.
Repeatability: May be repeated with consent of instructor. Maximum 8 hours.
Recommended Background: 415 or consent of instructor.

## INTERDISCIPLINARY PROGRAMS

(023) (AFST) Africana Studies

ADD NEW 400-LEVEL SECONDARY COURSES FOR GRADUATE CREDIT
AFST 464 Art of Southern and Eastern Africa (3)
Cross-listed: (See Art History 461.)
AFST 465 Art and Archaeology of Ancient Africa (3)
Cross-listed: (See Art History 462.)
AFST 466 Arts of the African Diaspora (3)
Cross-listed: (See Art History 463.)

## AFST 471 African-American Art (3)

Cross-listed: (See Art History 470.)

DROP 400-LEVEL SECONDARY CROSS-LISTED COURSES
AFST 461 Art of Southern and Eastern Africa (3)
Cross-listed: (See Art History 461.)
AFST 462 Art and Archaeology of Ancient Africa (3)
Cross-listed: (See Art History 462.)
AFST 463 Arts of the African Diaspora (3)
Cross-listed: (See Art History 463.)
AFST 470 African-American Art (3)
Cross-listed: (See Art History 470.)

## Africana Studies Equivalency Table (secondary courses)

| Current courses | Equivalent courses effective Fall 2011 |
| :--- | :--- |
| Africana Studies (AFST) 461 | Africana Studies (AFST) 464 |
| Africana Studies (AFST) 462 | Africana Studies (AFST) 465 |
| Africana Studies (AFST) 463 | Africana Studies (AFST) 466 |
| Africana Studies (AFST) 470 | Africana Studies (AFST) 471 |

Rationale: Art changed the acronym for Art History so these courses must be dropped and added back. Impact on other units: Cross listed Art History courses. Financial impact: none.
(251) (CNST) Cinema Studies

ADD NEW 400-LEVEL SECONDARY CROSS-LISTED COURSES FOR GRADUATE CREDIT
CNST 430 History of Film and Modern and Contemporary Art (3)

Cross-listed: (See Art Four Dimensional Arts 433.)
CNST 431 Cinematography as Art (4)
Cross-listed: (See Art Four Dimensional Arts 435.)
CNST 432 Video Art (4)
Cross-listed: (See Art Four Dimensional Arts 436.)

DROP 400-LEVEL SECONDARY CROSS-LISTED COURSES
CNST 433 History of Film and Modern Art (3)
Cross-listed: (See Art Media Arts 433.)
CNST 435 Cinematography as Art (3)
Cross-listed: (See Art Media Arts 435.)
CNST 436 Video Art (3)
Cross-listed: (See Art Media Arts 436.)
Cinema Studies Equivalency Table (secondary courses)

| Current courses | Equivalent courses effective Fall 2011 |
| :--- | :--- |
| Cinema Studies (CNST) 433 | Cinema Studies (CNST) 430 |
| Cinema Studies (CNST) 435 | Cinema Studies (CNST) 431 |
| Cinema Studies (CNST) 436 | Cinema Studies (CNST) 432 |

Rationale: Art is dropping all courses and reorganizing them so these courses must be dropped and added back. Impact on other units: Cross listed Art courses. Financial impact: none.
(440) (GLBS) Global Studies

ADD 400-LEVEL SECONDARY CROSS-LISTED COURSE FOR GRADUATE CREDIT
GLBS 441 Global Justice and Human Rights (3)
Cross-listed: (See Philosophy 441.)
Global Studies Equivalency Table (secondary course)

| Current Course | Equivalent Course effective fall 2011 |
| :--- | :--- |
| GLBS 393 | GLBS 441 |

Rationale: The primary department moved this course from 300-level to 400-level. Impact on other units: Cross listed Philosophy course. Financial impact: none.
(595) (JST) Judaic Studies

ADD NEW 400-LEVEL SECONDARY COURSES FOR GRADUATE CREDIT
JST 426 Early Christian and Byzantine Art to 1350 (3)
Cross-listed: (See Art History 425.)
JST 432 Medieval Art of the West, 800-1400 (3)
Cross-listed: (See Art History 431.)

DROP 400-LEVEL SECONDARY COURSES
JST 425 - Early Christian and Byzantine Art to 1350 (3)
Cross-listed: (See Art History 425.)
JST 431 - Medieval Art of the West 800-1400 (3)
Cross-listed: (See Art History 431.)
Judaic Studies Equivalency Table (secondary courses)

| Current Courses | Equivalent Courses effective Fall 2011 |
| :--- | :--- |
| JST 425 | JST 426 |
| JST 431 | JST 432 |

Rationale: Art is changing the acronym for Art History so these courses have to be dropped and added back. Impact on other units: Cross listed Art History courses. Financial impact: none.
(674) (MDST) Medieval Studies

ADD NEW 400-LEVEL SECONDARY COURSES FOR GRADUATE CREDIT
MDST 432 Medieval Art of the West, 800-1400 (3)
Cross-listed: (See Art History 431.)
MDST 442 Northern European Painting, 1350-1600 (3)
Cross-listed: (See Art History 441.)
MDST 452 The Art of Italy, 1250-1450 (3)
Cross-listed: (See Art History 451.)

DROP 400-LEVEL SECONDARY CROSS-LISTED COURSES
MDST 431 Medieval Art of the West, 800-1400 (3)
Cross-listed: (See Art History 431.)
MDST 441 Northern European Painting, 1350-1600 (3)
Cross-listed: (See Art History 441.)
MDST 451 The Art of Italy, 1250-1450 (3)
Cross-listed: (See Art History 451.)
Medieval Studies Equivalency Table (secondary courses)

| Current Courses | Equivalent Courses effective Fall 2011 |
| :--- | :--- |
| MDST 431 | MDST 432 |
| MDST 441 | MDST 442 |
| MDST 451 | MDST 452 |

Rationale: Art is changing the acronym for Art History so these courses have to be dropped and added back. Impact on other units: Cross listed Art History courses. Financial impact: none.

## DEPARTMENT OF MATHEMATICS

## (641) (MATH) Mathematics

REVISE 400-LEVEL PRIMARY COURSE TO ADD SECONDARY CROSS-LISTED COURSE
Math 405 Models in Biology (3) Difference and differential equation models of biological systems.
Cross-listed: (Same as Ecology and Evolutionary Biology 406.)
(RE) Prerequisite(s): 142 or 148 or 152.

## SCHOOL OF MUSIC

(715) (MUVC) Music Voice

REVISE REPEATABILITY
MUVC 520 Performance Techniques for Singers (1)
Repeatability: May be repeated. Maximum 6 hours.

## DEPARTMENT OF PHILOSOPHY

## (745) (PHIL) Philosophy

ADD NEW 400-LEVEL PRIMARY COURSE FOR GRADUATE CREDIT AND CROSS-LIST
PHIL 441 Global Justice and Human Rights (3) Issues such as justice between distinct and diverse political communities; universal human rights; and moral issues in environment, trade, and development.
Cross-listed: (Same as Global Studies 441.)

ADD NEW 400-LEVEL COURSES FOR GRADUATE CREDIT
PHIL 442 Topics in Applied Ethics (3) Topic varies.
Repeatability: May be repeated if topic differs. Maximum 9 hours.
Recommended Background: 6 hours of philosophy courses.
PHIL 450 Topics in Ethical Theory (3) Topic varies.
Repeatability: May be repeated if topic differs. Maximum 9 hours.
Recommended Background: 6 hours of philosophy courses.

DROP
PHIL 440 Contemporary Ethical Theory (3)
PHIL 443 Advanced Business Ethics (3)
PHIL 445 Advanced Environmental Ethics (3)
PHIL 446 Advanced Bioethics (3)
PHIL 473 Philosophy of Mind (3)
Rationale: Course 440 is being replaced by 450 to allow more flexibility. Course 473 is being moved from 400 -level to 300 -level where it is more appropriate. Impact on other units: none. Financial impact: none.

Philosophy Equivalency Table

| Current courses | Equivalent courses effective fall 2011 |
| :--- | :--- |
| Philosophy 393 | Philosophy 441 |
| Philosophy 440 | Philosophy 450 |

## REVISE REPEATABILITY

PHIL 480 Topics in Metaphysics and Epistemology (3)
Repeatability: May be repeated if topic differs. Maximum 9 hours.

## DEPARTMENT OF POLITICAL SCIENCE

## (801) (POLS) Political Science

ADD
POLS 673 Comparative Political Economy: Advanced Industrial Countries (3) Examines comparative political economy through research questions and scholarly works that focus on the advanced industrial countries.
Registration Restriction(s): Minimum student level - graduate.
POLS 685 Conflict Processes (3) Theoretical explanations for the causes and processes of war and international disputes or crises.
Registration Restriction(s): Minimum student level - graduate.

POLS 686 Arms Control, Deterrence and Nuclear Nonproliferation (3) Challenges to U.S. and global security created by the existence of nuclear weapons and power.
Registration Restriction(s): Minimum student level - graduate.

DROP
POLS 544 Information Systems and Networks in Planning (3)
POLS 590 Practicum in Planning (3)

## DEPARTMENT OF PSYCHOLOGY

(830) (PSYC) Psychology

## ADD NEW 400-LEVEL COURSE FOR GRADUATE CREDIT

PSYC 474 Theories and Research in Child Development (3) Survey of major theories and empirical research in the field of child development. Material will encompass areas such as motor, perceptual, cognitive, and emotional development.
Recommended Background: 300.
ADD
PSYC 578 Scientific Writing in Psychology (3) Dissertations through manuscripts for publication. Identifying sources of funding, locating and summarizing relevant literature, formulating theory-driven hypotheses, concise description of methods, data management and analysis, clear presentation of results, and coherent discussion of findings.
Recommended Background: Graduate level courses in statistics that cover hypothesis testing, ANOVA, and multiple regression.
Credit Level Restriction: Graduate credit only.

PSYC 645 Advanced Professional Issues in Clinical Psychology: Supervision and Career Development (1)
Seminar course will include didactic training in supervision, information about preparation for internship, and exposure to and discussion about different career trajectories within Clinical Psychology.
(RE) Prerequisite(s): 670 and 671.
Comments: Admission to doctoral concentration in clinical psychology or consent of instructor required.
Registration Restriction(s): Minimum student level - graduate.

## PART II: PROGRAM CHANGES

## INTERDISCIPLINARY PROGRAMS

## REVISE INTRODUCTORY PARAGRAPH - INTERDISCIPLINARY PROGRAMS

In the 2010-2011 Graduate Catalog, introductory paragraph, second sentence, delete the words environmental studies from the paragraph.

The programs include Africana studies, American studies, Asian studies, cinema studies, comparative literature, global studies, Judaic studies, Latin American studies, linguistics, medieval studies, and women's studies.

## DEPARTMENT OF PHYSICS AND ASTRONOMY

## ADD FIVE-YEAR BS-MS PROGRAM

In the 2011-2012 Graduate Catalog, add heading, text, and requirements for the Five-Year BS with Physics Minor-MS Program.

## FIVE-YEAR BS-MS PROGRAM

Qualified students completing a BS degree from a department of the College of Engineering or the College of Arts and Sciences who have added a physics minor by completing the requirements listed under the Five-Year BS with Physics Minor-MS program in the Undergraduate Catalog, must apply to the department's graduate committee for permission to enroll under this program. Six hours of 400 -level courses required for a minor in physics combined with a BS engineering degree may be applied toward a master's degree (project option or non-thesis option) in physics during a fifth year following the award of the BS. This program is designed for students attending the University of Tennessee for their Master of Science degree because other universities may not accept these courses for graduate credit since they were used to satisfy requirements for an undergraduate program. Significant components of the program are:

- Students must have an overall GPA of 3.4 in required course work. Conditional admission may be granted after completing the required 100 - and 200 -level requirements for the minor while full admission is granted after enrolling in the final semester of courses required for all BS and minor course requirements with a minimum overall GPA of 3.4.
- Students must at least be conditionally admitted to the program prior to taking graduate courses for both their minor and master's degree. All courses taken for graduate credit must be approved by the graduate program director. Students admitted to the program must request permission from the Graduate School to take approved courses for graduate credit.
- Students admitted to the program must also follow the normal procedure for admission to the Graduate School. Admission of students into this program must be approved by the department and the Graduate School. Students will not be eligible for assistantships until they are enrolled as graduate-level students in the Graduate School.


## Five-Year Program Project Option

The requirements for the project option are PHYS 411, PHYS 412, PHYS 593, PHYS 594, and 12 hours (four courses) chosen from any 500 -level physics courses. Examination and reporting requirements are the same as for the standard physics major MS project option.

## Five-Year Program Non-Thesis Option

The requirements for the non-thesis option are PHYS 411, PHYS 412, and six courses (18 hours) chosen from PHYS 513, PHYS 514, PHYS 521, PHYS 522, PHYS 531, PHYS 541, PHYS 571, PHYS 573. Examination requirements are the same as for the standard physics major MS non-thesis option.

Rationale: The engineering physics program is being eliminated due to low enrollment. It is being replaced by a combined 5 -year program similar to others offered in the College of Engineering. Impact on other units: none. Financial impact: none.

## DEPARTMENT OF POLITICAL SCIENCE

## REVISE REQUIREMENTS: POLITICAL SCIENCE MAJOR, PHD

In the 2010-2011 Graduate Catalog, under requirements heading, remove first paragraph and replace with the following:

## Requirements

Doctoral students admitted to the program must complete a minimum of 72 semester hours beyond the bachelor's degree, exclusive of credit for a master's thesis. These hours include 24 hours of Doctoral Research and Dissertation and a minimum of 48 semester hours in other courses graded A-F. Students also must pass a written comprehensive examination in one broad field of political science (American government and politics; public administration; comparative government and politics; or international relations), must complete one cross-field concentration (in methodology, public policy, or political economy), and must pass a final oral examination on the dissertation.
Rationale: The current wording requires a student who completes a master's degree with a non-thesis option ( 36 hours) to complete 84 hours to get the PhD. This is inconsistent with the department's intentions when the total number of hours was lowered from 84 to 72 two years ago. Impact on other units: none. Financial impact: none.

In the 2010-2011 Graduate Catalog, under requirements heading, revise second bullet as follows:

- At least 60 hours in political science must be in courses numbered above 500.

Formerly: At least 54 hours in political science must be in courses numbered above 500.
Rationale: The department has removed 400 -level courses from the MA and PhD programs. Impact on other units: none. Financial impact: none.

## I: COURSE CHANGES

## (205) (BUAD) Business Administration

ADD
515 Business Skills Development I (1.5) First of four courses designed to build skills that MBAs need to successfully apply knowledge in the business world. Students will complete initial skills assessments in information technology, communications and team-building as well as prepare initial drafts of career development materials.
Registration Restriction(s): Master of Business Administration admission. Minimum student level - graduate. Comment(s): Or consent of instructor.

516 Business Skills Development II (1.5) Second of four courses designed to build skills that MBAs need to successfully apply knowledge in the business world. Continuation of communications, team-building, and information technology skills. Emphasis on business communication, career development, networking and working in teams. (DE) Prerequisite(s): 515.
Registration Restriction: Master of Business Administration admission. Minimum student level - graduate. Comment(s): Or consent of instructor.

517 Business Skills Development III (1.5) Third of four courses designed to build skills that MBAs need to successfully apply knowledge in the business world. Continuation of presentation and team management skills. Focus on database skills and information technology.
(DE) Prerequisite(s): 516.
Registration Restriction: Master of Business Administration admission. Minimum student level - graduate.
Comment(s): Or consent of instructor.
518 Innovation in Practice (1.5) Fourth of four courses designed to build skills that MBAs need to successfully apply knowledge in the business world. An applied learning experience for student teams to solve challenges faced by organizations. Topics include a statement of work, innovative problem solving, consulting practices, business planning, transformational change leadership, project management and messaging.
(DE) Prerequisite(s): 517.
Registration Restriction: Master of Business Administration admission. Minimum student level - graduate. Comment(s): Or consent of instructor.

Rationale: Current MBA curriculum was implemented in 2001. The current structure delivers 27 hours of MBA core coursework in 3 block courses (BA 511, BA 512 and BA 513) which are difficult to schedule. This revision divides the core curriculum into 1.5 hour courses, which can be implemented according to the university course schedule (2 sessions during each semester). Course format and location: 15 class meetings, with approximately 45 students per section, in a session format on campus. Impact on other academic units: The following courses will substitute for BA 511, BA512 and BA 513 until adjustments can be made to the dual degree curriculum: ACCT 505, ACCT 506, BLAW 505, BUAD 515, BUAD 516, BUAD 517, BUAD 518, ECON 505, ECON 506, FIN 505, FIN 506, LOG 505, LOG 506, MKTG 505, MKTG 506, MGT SCI 505, MGT SCI 506, OPS 505, STAT 505, MGT 505 . Financial impact: None.

## DROP

511 MBA Core I (3)
SUPPORTING INFORMATION: Rationale: No longer part of required MBA core curriculum.

## REVISE DESCRIPTION

591 Global Business Seminar (3) Designed to familiarize MBA students with content needed to manage in a global business environment. Students also have the opportunity to apply their knowledge through an international travel experience. Students will complete in-class coursework on key aspects of international business, an international trip, and related projects and assignments.

## DEPARTMENT OF ACCOUNTING AND INFORMATION MANAGEMENT

## (009) (ACCT) Accounting

ADD
505 Financial Accounting I (1.5) Understand financial accounting principles, analyze financial statements of U.S. Public companies, and interpret related information, including financial statement notes. Emphasis on assessing company liquidity, profitability, asset management, and capital structure.
Registration Restriction(s): Master of Business Administration admission. Minimum student level - graduate.
Comment(s): Or consent of instructor.
506 Managerial Accounting I (1.5) Understand the methods and techniques used by managers to solve business problems using accounting data and to plan and assess business operations.
(DE) Prerequisite(s): 505.
Registration Restriction(s): Master of Business Administration admission. Minimum student level - graduate.
Comment(s): Or consent of instructor.
(216) (BULW) Business Law

ADD
505 Foundations of Business Law and Ethics (1.5) Provides an overview of fundamental concepts of law and business ethics. Topics include a basic knowledge of domestic and global legal and ethical environments; legal forms of business organization; essential concepts of tort, contract, and property law; specific federal regulatory agencies; and aspects of employment law.
Registration Restriction(s): Master of Business Administration admission. Minimum student level - graduate.
Comment(s): Or consent of instructor.

## DEPARTMENT OF ECONOMICS

(283) (ECON) Economics

ADD
505 Economics of Strategy (1.5) Topics in microeconomics relating to firms' strategic decisions.
Registration Restriction: Master of Business Administration admission. Minimum student level - graduate.
Comment(s): Or consent of instructor
506 Market Forces in the Global Environment (1.5) Topics in macroeconomics, international trade, and international finance.
Registration Restriction: Master of Business Administration admission. Minimum student level - graduate.
Comment(s): Or consent of instructor.

REVISE TO DROP (RE) PREREQUISITES
621 International Economics (3)
622 International Finance (3)

REVISE TO DROP REGISTRATION PERMISSION
631 Industrial Organization I (3)
632 Industrial Organization II (3)

## REVISE TO DROP (RE) PREREQUISITES AND ADD RECOMMENDED BACKGROUND

682 Advanced Topics in Cross-Section Econometrics (3)
Recommended Background: 582 and 583.
683 Time Series Econometrics (3)
Recommended Background: 582 and 583.
DEPARTMENT OF FINANCE
(349) (FINC) Finance

ADD
505 Financial Management I (1.5) Introduction to the fundamental principles and techniques of financial management Emphasis on evaluation and risk analysis for domestic and international projects
Registration Restriction(s): Master of Business Administration admission. Minimum student level - graduate.
Comment(s): Or consent of instructor.
506 Financial Management II (1.5) Extension of the fundamental principles and techniques of financial management. Emphasis on corporate valuation, capital structure theory, payout policy, and risk management in a global environment. (DE) Prerequisite(s): 505.
Registration Restriction(s): Master of Business Administration admission. Minimum student level - graduate. Comment(s): Or consent of instructor.

DROP
511 Strategic Management for Creation of Financial Value (3)

```
REVISE PREREQUISITES (FROM DE TO RE) AND ADD COMMENTS
5 1 2 \text { Problems in Financial Management (3)}
(RE) Prerequisite(s): Business Administration }518
Comment(s): Prior knowledge may satisfy prerequisite with consent of instructor.
5 2 5 \text { Investment Analysis and Portfolio Management (3)}
    (RE) Prerequisite(s): Business Administration }518
    Comment(s): Prior knowledge may satisfy prerequisite with consent of instructor.
532 Commercial and Investment Banking (3)
    (RE) Prerequisite(s): Business Administration }518
    Comment(s): Prior knowledge may satisfy prerequisite with consent of instructor.
5 8 1 \text { Real Estate Investment and Finance (3)}
    (RE) Prerequisite(s): Business Administration }518
    Comment(s): Prior knowledge may satisfy prerequisite with consent of instructor.
REVISE REPEATABILITY
599 Special Topics in Finance (1-3)
    Repeatability: May be repeated. Maximum 12 hours.
DEPARTMENT OF MANAGEMENT
(530) (HRM) Human Resource Management
REVISE TO ADD SECONDARY CROSS-LISTED COURSES
521 Foundations of Human Resource Management (3)
    Cross-listed: (See Management 521.)
5 5 0 \text { Organizational Behavior and Development (3)}
    Cross-listed:(See Management 550.)
595 Selected Topics in Current Management Issues (3)
    Cross-listed: (See Management 595.)
REVISE TO DROP (DE) PREREQUISITE AND COMMENT
503 Problems in Lieu of Thesis (1-3)
530 Employment Law and Labor Relations (3)
535 Applied Training and Development (3)
540 Staffing (3)
555 Strategic Human Resource Management (3)
(625) (MGT) Management
ADD
505 Leading Complex Organizations (1.5) Introduction to the basics of managing people and organizations. Provides
an exposure to theories of organization, important organizational and behavioral issues and processes; explores a variety
of strategies useful to successful organizational leaders.
    Registration Restriction(s): Master of Business Administration admission. Minimum student level - graduate.
    Comment(s): Or consent of instructor.
506 Competitive Strategy (1.5) Provides an overview of strategic management theory with a focus on factors that lead to competing successfully in a global world, including industry competitive position, firm and corporate level strategy, strategic processes, leadership, and implementation.
(DE) Prerequisite: 505.
Registration Restriction(s): Master of Business Administration admission. Minimum student level - graduate. Comment(s): Or consent of instructor.

550 Organizational Behavior and Development (3) Examination of individual group and organizational issues that affect and shape organizations. Topics include individual differences, motivation, communication, decision making, leadership, power, organizational structure and design, and change.
Cross-listed: (Same as Human Resource Management 550.)
DROP
545 Organizational Behavior and Development (3)
SUPPORTING INFORMATION: Rationale: This change is to synchronize the MGT and HRM offerings. Because there is already an HRM 545 on the books, we are dropping MGT 545 course and on separate documentation we are adding back MGT 545 as MGT 550 with a co-listing of HRM 550 . Course format and location: Standard. Impact on other units: None. Financial impact: None.

\section*{Equivalency Chart}
\begin{tabular}{|c|c|}
\hline Current Course & Equivalent Courses effective Fall 2011 \\
\hline (625) Management (MGT) 545 & (625) Management (MGT) 550 and secondary course (530) Human Resource \\
\hline
\end{tabular}

REVISE PRIMARY COURSE TO ADD CROSS-LISTING

\section*{521 Foundations of Human Resource Management (3)}

Cross-listed: (Same as Human Resource Management 521.)
595 Selected Topics in Current Management Issues (3)
Cross-listed: (Same as Human Resource Management 595.)

\section*{DEPARTMENT OF MARKETING AND LOGISTICS}
(626) (LOG) Logistics

ADD
505 Supply Chain Logistics 1: Strategic Issues in Supply Side Supply Chain Management (1.5) Strategic logisticsrelated management issues and frameworks that are associated with managing the supply side of contemporary supply chains. Topics such as procurement, strategic sourcing, inbound logistics, MRP and inventory management will be discussed.
Registration Restriction: Master of Business Administration admission. Minimum student level - graduate. Comment(s): Or consent of instructor.

506 Supply Chain Logistics 2: Strategic Issues in Demand Side Supply Chain Management (1.5) Logistics-related issues associated with strategically managing the demand side of contemporary supply chains. Emphasis will be placed on topics such as warehousing, transportation, logistics customer service and service quality, information systems, DRP, and logistics networks.

\section*{(DE) Prerequisite(s): 505.}

Registration Restriction: Master of Business Administration admission. Minimum student level - graduate.
Comment(s): Or consent of instructor.

\section*{REVISE TITLE AND DESCRIPTION; DROP (DE)COREQUISITE AND COMMENT; ADD (RE) PREREQUISITE}

520 Manufacturing/Services Operations and Procurement (3) Introduces the processes, creation, and management of value added transactions and relationships between suppliers, and internal and external customer relationships within an organization, channel, supply chain, and integrated value system context. Manufacturing/Service Operations Management focuses on the concepts, methods and tools that are useful in understanding the management of a firm's operations in manufacturing and service firms. Includes the systematic planning, design, and operation of all processes required for the production and delivery of goods and services. Procurement and strategic sourcing addresses the processes, methods and tools useful in understanding the management of the supply of materials and services to the organization. Includes the planning, design and management of supplier relationships, the decision to make or to buy, cost and pricing management for purchased goods and services.
(RE) Prerequisite(s): Business Administration 518.

\section*{REVISE TITLE, DESCRIPTION, AND PREREQUISITE (FROM DE TO RE)}

546 Logistics Operations (3) Analysis of logistics and transportation operations and management techniques applied to warehousing / distribution center operations, operation of transportation services, and logistics personnel management. (RE) Prerequisite(s): Business Administration 518.

547 Supply Chain Analytics and Strategy (3) Development of strategy for supply chain processes and logistics systems. Executive-level integration of supply chain strategy with functional areas including logistics, marketing,
manufacturing and procurement. Introduction and use of analytical tools and techniques that provide a cause and effect understanding of operational actions to corporate objectives.
(RE) Prerequisite(s): Business Administration 518.
(632) (MARK) Marketing

ADD
505 Marketing and Demand Management I (1.5) Introduction to the basic principles and techniques of marketing and demand management. Emphasis on marketing mix essentials and determination of customer value.
Registration Restriction: Master of Business Administration admission. Minimum student level - graduate. Comment(s): Or consent of instructor.

506 Marketing and Demand Management II (1.5) Continuing focus the basic principles and techniques of marketing and demand management. Emphasis on delivering and communicating customer value.
(DE) Prerequisite(s): 505.
Registration Restriction: Master of Business Administration admission. Minimum student level - graduate.
Comment(s): Or consent of instructor.

REVISE TITLE, DESCRIPTION, AND PREREQUISITE (FROM DE TO RE)
537 MBA Brand and Shopper Marketing Management (3) Builds on traditional brand management in the consumer goods context and addresses shopper marketing management in detail. Concepts and skills include marketing along the path to purchase, in-store marketing/merchandizing, consumer and shopper insights, strategic planning for shopper marketing initiatives, collaboration between product manufacturers, retailers, brokers and advertising agencies, shopper marketing execution, supply chain management issues related to shopper marketing, and performance measurement. (RE) Prerequisite(s): Business Administration 518.

\section*{DEPARTMENT OF STATISTICS, OPERATIONS AND MANAGEMENT SCIENCE}

\section*{(627) (MGSC) Management Science}

ADD
505 Descriptive Modeling (1.5) Principles of descriptive modeling for business insight and methodologies to address decision-making under uncertainty.
Registration Restriction: Master of Business Administration admission. Minimum student level - graduate.
Comment(s): Or consent of instructor.
506 Prescriptive Modeling (1.5) Principles and methodology for prescriptive modeling including optimization techniques and advanced decision models and analysis.
(DE) Prerequisite(s): 505.
Registration Restriction: Master of Business Administration admission. Minimum student level - graduate.
Comment(s): Or consent of instructor.
535 Business Process Optimization (3) Team-based Business Analytics case analyses through the discovery, problem definition, data acquisition, data cleaning, modeling, model interpretation, recommendation, implementation and maintenance phases of business process modeling.
(RE) Prerequisite(s): 532.
Comment(s): Prior knowledge may satisfy prerequisite with consent of instructor.

\section*{REVISE TITLE AND DESCRIPTION}

531 Decision Optimization (3) Linear programming decision models, solutions, duality, sensitivity analysis, linear and integer optimization models, transportation and selected network flow models, along with application issues of these models.

532 Simulation and Decision Analytics (3) Modeling and structuring the decision-making process, Monte Carlo and discrete-event simulation for decision-making, decision trees, influence diagrams, decision-making under uncertainty.

533 Systems Optimization (3) Business system decomposition, optimization analysis of subsystems, handling data uncertainty, hierarchical and dynamic systems modeling, computational and implementation issues.

\section*{REVISE (RE) PREREQUISITES}

534 Business Analytics Experience (1-6)
(RE) Prerequisite(s): 531, 532, 691, and 692; Accounting 505; Finance 505; and Statistics 563, 566, 571, and 572.

505 Operations Management (1.5) Principles and techniques for managing operations in a lean supply chain. Emphasis on process improvement techniques such as lean thinking and the theory of constraints using hands-on simulations.
Registration Restriction: Master of Business Administration admission. Minimum student level - graduate.
Comment(s): Or consent of instructor.

DROP
540 Statistics and Operations Management (3)
(962) (STAT) Statistics

ADD
505 Quantitative Methods (1.5) Quantitative methods for business intelligence and process improvement techniques. Registration Restriction: Master of Business Administration admission. Minimum student level - graduate.
Comment(s): Or consent of instructor.
544 Business Cases in Data Mining (3) Application of analytic tools in the context of business problems. Data management, exploratory data analysis and visualization, predictive modeling, design of experiments, segmentation and clustering, text mining. Use of computing software.

565 Quantitative Methods for Business Analytics (5) Probability and probability models, random variables (univariate and multivariate), moments and moment generating functions, likelihood inference and maximum likelihood estimation. Mathematical methods for probability and statistical inference.
Recommended Background: Basic calculus.
576 Multivariate and Data Mining Techniques (3) Multivariate normal distribution, data visualization, handling missing data, dimension reduction techniques, supervised learning, clustering, outlier detection, including a team-based project and common data mining software.
(RE) Prerequisite(s): 572 and Computer Science 526.
Comment(s): Prior knowledge may satisfy prerequisite with consent of instructor.

\section*{PART II: PROGRAM CHANGES}

\section*{BUSINESS ADMINISTRATION}
+ ADD DUAL PHARM D - MBA PROGRAM
In the 2011-2012 Graduate Catalog add heading, text, and requirements for the new dual Pharm D-MBA program.

\section*{Pharm D - MBA Dual Program}

The University of Tennessee Health Science Center (UTHSC) College of Pharmacy and the University of Tennessee, Knoxville (UTK) College of Business Administration collaboratively offer a dual degree program leading to the conferral of the Doctor of Pharmacy and the Master of Business Administration degrees. This program is a unique partnership and collaboration of two components of the statewide University of Tennessee system that combines the strengths of two nationally highly-ranked programs.
The dual program saves the student approximately 18 hours over the time that would be required to earn both degrees independently.

The establishment of the dual program addresses the critical need for the pharmacist executive who is trained in business fundamentals with the analytical, technical, management, and economic decision-making skills to operate within the contemporary economic and health care environments. The objective of the dual degree program is to prepare graduates to take leading management roles within a variety of health care sectors related to administrative decision-making on the use of medicines. The career opportunities for the successful graduate include management and ultimately leadership positions in institutional pharmacies as part of healthcare-systems, retail pharmacies with corporate management, pharmacy benefit management companies, third-party health care payors, managed care organizations, state and federal governments, the pharmaceutical industry, and pharmaceutical consulting firms among others. The advantage for the business-skilled pharmacist is the blend of pharmacotherapy insight with the business acumen to contribute and make informed economic decisions on medicines.

\section*{Admission}

Applicants for the dual Pharm.D. - MBA program must make separate applications to and be accepted by the UTHSC College of Pharmacy and UTK Graduate Admissions for the Master of Business Administration. The admissions requirements for both programs must be satisfied in order to participate in the dual-degree program. See each college's website for details on admission. Note that candidates for the dual degree program who are enrolled in the UTHSC Pharm.D. program must possess an undergraduate degree, complete their second through fourth years of the Pharm.D. program at the College's Knoxville campus, and take the Graduate Management Admission Test (GMAT) to be considered for admission. Application for the dual degree program is a two-step process. First, the applicant must be accepted by the UTHSC College of Pharmacy in the Pharm.D. program and complete at least two semesters of the curriculum. At least one semester before the student intends to begin MBA courses, the student pharmacist should declare his or her interest in applying to the dual degree program, fulfill the admission requirements for the UTK MBA program, and submit an application for admission. After the MBA application deadline of February 1, applications by United States citizens and permanent residents will be considered only as space allows.
Students accepted for both the Pharm.D. and MBA programs will be assigned to an advisor from the Pharm.D. program and another from the MBA program to guide decisions on elective courses in both curricula. These advisors will be responsible for course approval and supervision of the student's progress through the dual program.

\section*{Requirements}

The dual degree program can be accomplished within five years with the Pharm.D. degree awarded first followed by the MBA degree. The dual curriculum consists of 172 hours of coursework. A minimum of 30 hours must be from the College of Business Administration. Of the 142 hours required for the Doctor of Pharmacy degree, a minimum of 9 hours must be from approved electives dealing with healthcare management and policy offered by either the UTHSC College of Pharmacy or the UTK College of Business Administration.

The dual degree candidate must satisfy the curricular and graduation requirements of the UTHSC College of Pharmacy and the UTK College of Business Administration. Since the dual degree program is a two-step program, students who withdraw from the dual degree program before completing both degrees can still graduate with the Pharm.D. degree provided that the graduation requirements are satisfied. Credit toward graduation for courses taken in the MBA program would qualify for credit toward the MBA degree; however, additional MBA coursework is required for the MBA degree if the student does not complete the Pharm.D. - MBA program.

\section*{Career Placement}

Graduates of the Pharm.D. - MBA program will be counseled on career opportunities by the collaboration of advisors, faculty and program directors of both programs to make students aware of job opportunities, strategies for successful employment and career development.
SUPPORTING INFORMATION: Rationale: Creates dual degree program that crosses campuses and makes the MBA degree possible for Pharm.D. students studying at the UTHSC Knoxville location. Dual program between UTHSC and the University of Memphis MBA Program is available for students studying at the Memphis location. Course format and location: Impact on other units: None. Financial impact: None.

In the 2011-2012 Graduate Catalog add heading, text, and requirements for the dual MS-MBA Program - Business Analytics

\section*{Dual MS - MBA Program - Business Administration / Business Analytics}

The Master of Business Administration program and the Department of Statistics, Operations, and Management Science offer a coordinated dual program leading to the conferral of both the Master of Science degree with a major in Business Analytics and the Master of Business Administration degree with a major in Business Administration. The dual program saves the student approximately 15 hours (one semester) over the time that would be required to earn both degrees independently.

The establishment of the dual program recognizes the increasingly complex world of business and the importance of technical and analytical skills in using data to make strategic and tactical business decisions, the complementary nature of the graduate MBA and MS Business Analytics programs, and the intellectual benefits inherent in concurrent study of both business modeling and analytical tools.

The program is designed to accommodate students who are interested in: (a) careers that will involve data-mining but want to understand the broader business environment, (b) careers in management that will require interpretation of data derived from business analytics tools, and (c) careers where specialties in decision-making and forecasting based on modeling techniques are required. In their course of study, students will choose from the following four areas of emphasis: business process optimization, data mining, applied statistics, and business intelligence.

\section*{Admission}

Applicants for the MS-MBA Business Analytics program must make separate application to and be accepted by the Office of Graduate Admissions for the Master of Business Administration and the Master of Science with a major in Business Analytics. Students should indicate on both applications the intent to pursue the dual MS-MBA program. Students accepted for both the MBA and MS degree programs will be assigned to an advisor from the MBA program and another from the business analytics MS program. These advisors will be responsible for course approval and supervision of the students' progress through the dual program.

After the MBA application deadline of February 1, applications by United States citizens and permanent residents will be considered as space allows. The MBA Program requires a GMAT score for admissions consideration. Additional information is required and different application dates are established by Graduate Admissions for international students.

\section*{Requirements}

The Master of Business Administration will award up to 15 hours of credit toward the MBA for acceptable performance in approved graduate-level courses offered in the MS Business Analytics Program. The Department of Statistics Operations and Management Science will award up to 9 hours of credit toward the MS Business Analytics for acceptable performance in approved courses offered in the Master of Business Administration. The approval of courses is the responsibility of the student and the student's assigned advisors.

Students may begin their studies in either the MS Business Analytics or the MBA program, but may not enroll in MS Business Analytics course work while completing the first year of the MBA curriculum. During the first year in the MBA program, students register as Master of Business Administration program students. After the first year, any term in which students take a mixture of MBA and MS Business Analytics courses, they are classified and registered as MS Business Analytics students.

A dual program candidate must satisfy the graduation requirements of both the MS in Business Analytics and the Master of Business Administration. Students withdrawing from the dual program before completing both degrees will not receive credit toward graduation in either degree program for courses taken in the other degree program, except as such courses qualify for credit without regard to the dual degree program. The MS and the MBA degrees will be awarded upon successful completion of the requirements of the dual program.

SUPPORTING INFORMATION: Rationale: Creates dual degree program that allows students to benefit from the business foundational skills provided by the MBA Program and the quantitative and program solving skills provided by the MS Business Analytics degree. Course format and location: Impact on other units: None. Financial impact: None.

\section*{FULL-TIME MBA}

\section*{REVISE FULL-TIME MBA PROGRAM DESCRIPTION}

In the 2010-11 Graduate Catalog, remove current catalog text and replace with the following:
The full-time MBA program is designed for students with undergraduate degrees in a wide variety of fields, including the social and natural sciences, the humanities, and professional fields such as engineering, business, agriculture, and architecture. In addition, most students in this program should have two or more years of work experience beyond their undergraduate degree(s). The MBA is a 48 credit hour program with students beginning in August of each year and graduating in December of the following year. During the summer between the second and third semesters, students must complete an internship with a company/organization using skills acquired during the first year of the MBA program.

The MBA program consists of a common first-year core ( 30 hours), a global requirement ( 3 hours), a capstone requirement ( 3 hours), and a selection of concentration and elective courses (12 hours). The first-year core develops a general management foundation upon which specialization is developed in the concentration and elective courses.

The objective of the MBA program is to develop leaders who are prepared to enhance the success of their global organizations. Concentrations are offered in a variety of areas, including finance, logistics, marketing, operations management, and entrepreneurship and innovation (E\&I).

The global component of the MBA program consists of 3 credit hours. All MBA students are required to participate in a 3credit hour international seminar, BUAD 591. Students who are granted a waiver for BUAD 591 take an additional 3credit hour elective to satisfy the program's overall credit requirements of 48 hours. The international experience consists of coursework and a trip to areas such as Latin America, Asia or Europe. The academic purpose of the global component of the curriculum is to familiarize students with the complexities of doing business internationally through experiential learning.

During the fall semester of the second year, MBA students complete a required 3-credit hour capstone course. This course applies business strategies in the global context.

\section*{Admission}

Applications are accepted for fall semester only. The application deadline for fall semester is February 1. Applications by United States citizens and permanent residents received after February 1 will be considered as space allows.

To be considered for admission, the applicant's file must be complete. A completed file includes the Application for Graduate Admission, transcripts of prior college work, an MBA program application, two completed applicant recommendation forms, and the Graduate Management Admission Test (GMAT) score report. Additional information, including the TOEFL score (Test of English as a Foreign Language), may be required by the Office of Graduate Admissions for international candidates.

For admission to the MBA program, consideration is given to (1) applicant's academic record with particular attention to the last two years of undergraduate work and previous graduate studies; (2) quality of work experience and other activities that demonstrate potential for leadership; (3) scores on the GMAT and the Test of English as a Foreign Language (TOEFL) for those whose native language is not English; and (4) recommendations from professors and/or work supervisors. The admission decision is based on all factors that make up the total application; therefore, there is no automatic cut-off for either grade point averages or GMAT scores. However, admission preference is given to applicants with full-time work experience after obtaining the undergraduate degree.

\section*{Prerequisites}

There are no specific course prerequisites for admission; however, we recommend that non-business undergraduates take an introductory course in accounting, finance, and statistics prior to entry. Undergraduate courses and work experience should demonstrate ability with both qualitative and quantitative work.

\section*{Requirements}

MBA Core
The MBA core (30 hours) consists of courses that introduce students to the foundations of business. The topics introduced within these courses follow three major themes. The first theme covers what every manager needs to know and includes such functional topics as finance, economics, strategy, decision tools, global business, environmental analysis, and leadership skills development. The second theme focuses on functions involved in the flows of products, information, and finances within a globally integrated value chain and includes, but is not limited to, operations management, logistics management, demand management, customer relationship management, supplier management, and resource management. The third theme involves integrating the content of the other two themes using communication skills, applied learning techniques and information technology. Throughout all three themes, significant emphasis is placed on learning the topics in an integrated fashion. Students will understand how various business functions are integrated within an organization, as well as how integration should occur across organizations within the context of a value chain.

Students in the first-year core undertake active learning within a team-based environment. Many core requirements are experiential exercises in which self-discovery within a team setting is an important element of the learning process. Individualized support is provided for developing both written and oral communication skills.
For a complete list of courses that make up the MBA core, please visit http://mba.utk.edu.

\section*{Concentration and Electives}

A concentration area may be indicated on the MBA Program Application or this declaration may be deferred until after matriculation. In any event, selection should be made after the first semester and must be made after completion of the first year. Requests for changes in concentration areas must be submitted for approval to the MBA Program Office.

Among the 15 hours in the concentration/electives block, students may choose an MBA concentration. For the specific courses required in concentration areas, see the appropriate department: Business Analytics Concentration, Business Administration Major, MBA - Finance Concentration, Business Administration Major, MBA -Entrepreneurship and Innovation Concentration, Business Administration Major, MBA - Marketing Concentration, Business Administration Major, MBA and Operations Management Concentration, Business Administration Major, MBA, -Supply Chain Management Concentration, Business Administration Major, MBA.

Elective courses may be chosen from any 500 -level courses in the College of Business Administration. Courses outside the college, as well as courses listed in The Graduate Catalog numbered below 500, may be included as an elective only with written prior permission via formal petition to the MBA Program Office.

\section*{Transfer Credits}

Graduate-level courses taken at other institutions accredited by the Association to Advance Collegiate Schools of Business International that otherwise conform to university policy may be credited toward MBA degree requirements within the following limits.
The maximum number of hours that may be transferred to core, elective, and concentration areas is 6 semester hours. Transfer credit is considered after admission, upon formal petition to the Director of the MBA Program and must meet all requirements of the Graduate Council.

\section*{Other Requirements}

The application for Admission to Candidacy must be approved by three MBA faculty members and the Director of the MBA program. It must be submitted to the Graduate School at least one full semester prior to the date the degree is conferred. (The Admission to Candidacy application for the MBA degree must be submitted in the spring semester for graduation in the following fall semester.)
To qualify for the degree, the student must achieve a \(B\) average (3.0) or above in MBA core courses required in his/her program, a B average or higher in courses comprising the concentration area, and a B average or higher in the overall program.

\section*{DUAL MS-MBA PROGRAM - BUSINESS ADMINISTRATION / AGRICULTURAL ECONOMICS}

\section*{REVISE CATALOG TEXT TO UPDATE THE NAME CHANGE OF THE MAJOR AND TO REMOVE SHOWCASE}

In the 2010-11 Graduate Catalog, revise the first, third, fifth, and sixth paragraphs to reflect the name change of the major (agricultural economics to agricultural and resource economics).

The College of Business Administration and the College of Agricultural Sciences and Natural Resources offer a dual program leading to the conferral of both the Master of Business Administration and the Master of Science with a concentration in agribusiness in the agricultural and resource economics major. The dual program can be accomplished with approximately 20 fewer hours of course work than would be required to earn both degrees separately.

\section*{Admission}

Applicants for the dual MS-MBA program must make separate applications to and be accepted by Graduate Admissions for the Master of Business Administration and the Master of Science with a major in agricultural and resource economics. Students should indicate on both applications the intent to pursue the dual MS-MBA program. Students accepted for both the MBA and MS degree programs will be assigned to an advisor from the MBA program and another from the agricultural and resource economics MS program. These advisors will be responsible for course approval and supervision of the students' progress through the dual program.

\section*{Requirements}

The dual MS-MBA curriculum consists of 60 hours of coursework, 30 hours for the Master of Business Administration and 30 hours for the Master of Science. A minimum of 30 hours must be from the College of Business Administration. Of the 30 hours required for the Master of Science, a minimum of 21 hours must be at the 500 level, excluding 500 and 502, a minimum of 21 hours must be from the Department of Agricultural and Resource Economics, and nine hours of electives may be from the College of Business Administration, the Department of Agricultural and Resource Economics, and/or other courses approved by the student's Master's Committee. A written comprehensive exam on the material covered in agricultural and resource economics courses is required during the spring semester of the second year. An oral exam is also required for students who receive a marginal pass on the written exam.

The dual degree candidate must satisfy the curriculum and graduation requirements of the agricultural and resource economics major and the College of Business Administration. Students withdrawing from the dual degree program before completing both degrees will not receive credit toward graduation in either degree program for courses taken in the other degree program, except as such courses qualify for credit without regard to the dual degree program. The MS and the MBA degrees will be awarded upon successful completion of the requirements of the dual program.

\section*{DEPARTMENT OF FINANCE}

REVISE REQUIREMENTS - FINANCE CONCENTRATION, BUSINESS ADMINISTRATION MAJOR, MBA
In the 2010-11 Graduate Catalog, remove current paragraph and replace with the following:
The concentration is for those interested in careers in corporate financial management, security analysis and investments, banking and financial institutions, and real estate. Minimum course requirements are three courses from the following FINC 512, FINC 525, FINC 532, FINC 571, FINC 581, and FINC 599 (Torch Fund only).

\section*{DEPARTMENT OF MANAGEMENT}
- DROP AS SECONDARY CONCENTRATION - BUSINESS ADMINISTRATION MAJOR - MBA

Secondary concentration - Innovation and Entrepreneurship
- ADD CONCENTRATION - BUSINESS ADMINISTRATION MAJOR - MBA

Entrepreneurship and Innovation concentration
In the 2010-11 Graduate Catalog, remove concentration from majors/degree chart and remove heading and text (Secondary Concentration -Innovation and Entrepreneurship) from under the catalog MBA link.

In the 2010-11 Graduate Catalog, add concentration to the majors/degree chart and add heading, text, and requirements under the Department of Management for the Entrepreneurship and Innovation concentration as indicated below:

\section*{Entrepreneurship and Innovation concentration}

Entrepreneurship and Innovation is a concentration in the MBA program. This concentration provides the skills to launch a new business and to function successfully within an established corporation that employs entrepreneurial management strategies. It teaches how to assess entrepreneurial opportunities, apply strategic consultative thinking to problem solving, assess the commercial potential of an idea or innovation, develop strategic, business and financial plans, develop effective presentations, and serve as an effective member of an entrepreneurial/innovation team. Minimum course requirements are MGT 551 and MGT 552.

SUPPORTING INFORMATION: Rationale: The entrepreneurship faculty and the Anderson Center for Entrepreneurship are housed in the Management Department. Given the movement of all MBA concentrations to departmental ownership, this move of the E\&I concentration to the Management department is consistent with other departments. Course format and location: Standard. Impact on other units: None. Financial impact: None.

\section*{DEPARTMENT OF MARKETING AND LOGISTICS}
- DROP CONCENTRATION - BUSINESS ADMINISTRATION MAJOR - MBA

Logistics concentration

\section*{- ADD CONCENTRATION - BUSINESS ADMINISTRATION MAJOR - MBA \\ Supply Chain Management concentration}

In the 2010-11 Graduate Catalog, remove heading "Logistics concentration, Business Administration Major, MBA" and replace with "Supply Chain Management Concentration, Business Administration Major, MBA".

REVISE REQUIREMENTS, MARKETING CONCENTRATION - BUSINESS ADMINISTRATION MAJOR - MBA
In the 2010-11 Graduate Catalog, remove course MARK 520 and replace with STAT 544.

\section*{DEPARTMENT OF STATISTICS, OPERATIONS AND MANAGEMENT SCIENCE}

ADD CONCENTRATION - BUSINESS ADMINISTRATION MAJOR - MBA
Business Analytics concentration
In the 2010-11 Graduate Catalog, add heading, text, and requirements for new concentration.

\section*{Business Analytics Concentration, Business Administration Major, MBA}

The MBA concentration in Business Analytics requires a total of 9 hours (3 courses) in Business Analytics. An MBA student pursuing a concentration in Business Analytics should enroll in STAT 544. In addition, the student must then choose 2 more courses from the following 4 courses: STAT 571, MGSC 531, MGSC 551, or OMS 541.

REVISE REQUIREMENTS - OPERATIONS MANAGEMENT CONCENTRATION - BUSINESS ADMINISTRATION MAJOR - MBA

In the 2010-11 Graduate Catalog, remove current paragraph and replace with the following:
Minimum course requirements are OMS 541 and two courses from MGSC 531, MGSC 551, IE 522, IE 526 (MGSC 526), or an applicable course approved by designated faculty.

REVISE REQUIREMENTS - BUSINESS ANALYTICS MAJOR, MS
In the 2010-11 Graduate Catalog, under Core Requirements remove BUAD 593 and replace with ACCT 505, and FINC 505.

\section*{I. COURSE CHANGES}
(248) (CCI) COMMUNICATION AND INFORMATION

ADD
660 Topics in Communication and Information (1-6)
Repeatability: May be repeated. Maximum 12 hours.
Registration Restriction(s): Minimum student level - graduate.
Registration Permission: Consent of instructor.

\section*{SCHOOL OF COMMUNICATION STUDIES}

\section*{(250) (CMST) Communication Studies}

ADD
510 Survey of Interpersonal Communication (3) Survey of theory and research in interpersonal communication.
Credit Level Restriction: Graduate credit only.
Registration Restriction(s): Minimum student level - graduate.
516 Interpersonal Health Communication (3) Identifies and addresses theories and research concerning how people communicate about health.
Credit Level Restriction: Graduate credit only.
Registration Restriction(s): Minimum student level - graduate.

DROP
520 Survey of Interpersonal Communication (3)

\section*{525 Survey of Interpersonal Health Communication (3)}

Supporting Information: Rationale: Course numbers are being changed to correspond to the undergraduate version of those courses. For example, CMST 416 and CMST 516 are both health communication classes. The reasoning for making 520 now 510 is similar in that all of our interpersonal courses are numbered 10 through 19 at the appropriate level.

Equivalent Chart
\begin{tabular}{|l|l|}
\hline \begin{tabular}{c} 
Current Courses \\
(250) (CMST) Communication Studies
\end{tabular} & \begin{tabular}{c} 
Equivalent Courses effective Fall 2011 \\
(250) (CMST) Communication Studies
\end{tabular} \\
\hline 520 & 510 \\
\hline 525 & 516 \\
\hline
\end{tabular}

\section*{REVISE DESCRIPTION AND ADD CREDIT LEVEL DESCRIPTION}

560 Special Topics in Communication Studies (3) Presentation of focused topics in human communication theory and research.
Credit Level Restriction: Graduate credit only.

REVISE TITLE AND DESCRIPTION; ADD CREDIT LEVEL RESTRICTION AND REGISTRATION RESTRICTION
540 Survey of Organizational Communication (3) Survey of theory and research in organizational communication.
Credit Level Restriction: Graduate credit only.
Registration Restriction(s): Minimum student level - graduate.

\section*{REVISE TO ADD CREDIT LEVEL RESTRICTION AND REGISTRATION RESTRICTION}

505 Human Communication Research Methods (3)
Credit Level Restriction: Graduate credit only.
Registration Restriction(s): Minimum student level - graduate.

\section*{593 Independent Study (1-6)}

Credit Level Restriction: Graduate credit only.
Registration Restriction(s): Minimum student level - graduate.

Registration Restriction(s): Minimum student level - graduate
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5 9 0 ~ P r o j e c t ~ ( 3 )
Credit Level Restriction: Graduate credit only.
Registration Restriction(s): Minimum student level - graduate.
591 Foreign Study (1-15)
Credit Level Restriction: Graduate credit only.
Registration Restriction(s): Minimum student level - graduate.
592 Internship (1-6)
Credit Level Restriction: Graduate credit only.
Registration Restriction(s): Minimum student level - graduate.

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\section*{SCHOOL OF INFORMATION SCIENCES}
(560) (INSC) INFORMATION SCIENCES

\section*{REVISE TO ADD REGISTRATION RESTRICTION}

510 Information Environment (3)
Registration Restriction(s): Master of Science - Information Sciences major. Minimum student level - graduate.
520 Information Representation and Organization (3)
Registration Restriction(s): Master of Science - Information Sciences major. Minimum student level - graduate.
521 Cataloging and Classification (3)
Registration Restriction(s): Master of Science - Information Sciences major. Minimum student level - graduate.
523 Abstracting and Indexing (3)
Registration Restriction(s): Master of Science - Information Sciences major. Minimum student level - graduate.
530 Information Access and Retrieval (3)
Registration Restriction(s): Master of Science - Information Sciences major. Minimum student level - graduate.
531 Sources and Services for the Social Sciences (3)
Registration Restriction(s): Master of Science - Information Sciences major. Minimum student level - graduate.
532 Sources and Services for Science and Engineering (3)
Registration Restriction(s): Minimum student level - graduate.
533 Sources and Services for the Humanities (3)
Registration Restriction(s): Master of Science - Information Sciences major. Minimum student level - graduate.
534 Government Information Sources (3)
Registration Restriction(s): Master of Science - Information Sciences major. Minimum student level - graduate.
535 Advanced Information Retrieval (3)
Registration Restriction(s): Minimum student level - graduate.
540 Research Methods for Information Professionals (3)
Registration Restriction(s): Master of Science - Information Sciences major. Minimum student level - graduate.
550 Management of Information Organizations (3)
Registration Restriction(s): Master of Science - Information Sciences major. Minimum student level - graduate.
551 School Library Media Centers (3)
Registration Restriction(s): Master of Science - Information Sciences major. Minimum student level - graduate.
552 Academic Libraries (3)
Registration Restriction(s): Minimum student level - graduate.
553 Specialized Information Agencies and Services (3)
Registration Restriction(s): Minimum student level - graduate.
554 Public Library Management and Services (3)
Registration Restriction(s): Master of Science - Information Sciences major. Minimum student level - graduate.
555 Scientific and Technical Communications (3)
Registration Restriction(s): Minimum student level - graduate.

Registration Restriction(s): Minimum student level - graduate
557 User Instruction (3)
Registration Restriction(s): Minimum student level - graduate.
559 Grant Development for Information Professionals (3)
Registration Restriction(s): Master of Science - Information Sciences major. Minimum student level - graduate.
560 Development and Management of Collections (3)
Registration Restriction(s): Master of Science - Information Sciences major. Minimum student level - graduate.
563 Graphic Design and Media (3)
Registration Restriction(s): Minimum student level - graduate.
564 Archives and Records Management (3)
Registration Restriction(s): Minimum student level - graduate.
565 Digital Libraries (3)
Registration Restriction(s): Minimum student level - graduate.
566 Business Intelligence for the Information Professional (3)
Registration Restriction(s): Minimum student level - graduate.
567 Information Networking Applications (3)
Registration Restriction(s): Minimum student level - graduate.
571 Resources and Services for Children (3)
Registration Restriction(s): Master of Science - Information Sciences major. Minimum student level - graduate.
572 Resources and Services for Young Adults (3)
Registration Restriction(s): Master of Science - Information Sciences major. Minimum student level - graduate.
573 Programming for Children and Young Adults (3)
Registration Restriction(s): Master of Science - Information Sciences major. Minimum student level - graduate.
574 Resources and Services for Adults (3)
Registration Restriction(s): Minimum student level - graduate.
575 Valuing Diversity: International \& Intercultural Resources (3)
Registration Restriction(s): Minimum student level - graduate.
576 Storytelling in Libraries and Classrooms (3)
Registration Restriction(s): Minimum student level - graduate.
582 Information Systems Design and Implementation (3)
Registration Restriction(s): Minimum student level - graduate
584 Database Management Systems (3)
Registration Restriction(s): Minimum student level - graduate.
585 Information Technologies (3)
Registration Restriction(s): Minimum student level - graduate.
587 Mining the Web (3)
Registration Restriction(s): Minimum student level - graduate.
588 Human-Computer Interaction (3)
Registration Restriction(s): Minimum student level - graduate.
589 Information Networking Technologies (3)
Registration Restriction(s): Minimum student level - graduate.
590 Problems in Information Sciences (3)
Registration Restriction(s): Minimum student level - graduate.

591 Independent Research or Project (3-6)
Registration Restriction(s): Minimum student level - graduate.
594 Graduate Research Participation (3)
Registration Restriction(s): Minimum student level - graduate.

Registration Restriction(s): Minimum student level - graduate.
596 Field-Based Experience in School Library Information Centers (2)
Registration Restriction(s): Minimum student level - graduate.

\section*{599 Practicum (3-6)}

Registration Restriction(s): Minimum student level - graduate.
SUPPORTING INFORMATION: Rationale: Information Sciences 500-level courses are for graduate credit only. High demand Information Science courses are restricted to students within the major giving them priority enrollment when a course is offered.

\section*{I. COURSE CHANGES}

DEPARTMENT OF CHILD AND FAMILY STUDIES
(245) (CFS) Child and Family Studies

DROP
505 Development of Interpersonal and Supervision Skills (3)
522 Naturalistic Interventions for Parents and Teachers of Young Children (3)
525 Seminar on Play (3)

\section*{REVISE DESCRIPTION}

552 Diversity in Children and Families (3) Diversity in child and family contexts, focusing on variations that coincide with major axes of diversity in contemporary societies.

652 Men in Families (3) Contemporary men: primary psychological processes in sociological context. Reciprocal influence of society, men and their families in relation to marriage and parenting.

653 Women in Families (3) Contemporary women: primary psychological processes in sociological context. Reciprocal influence of society, women, and their families in relation to marriage and parenting.

\section*{REVISE TITLE AND DESCRIPTION}

511 Survey of Research in Child and Family Studies (3) Survey of research in the areas of "development in context" and "at-risk children and families." Foundational and contemporary conceptualizations and research related to development in context and risk and resiliency, considering multiple contexts in which children and families are situated.

\section*{DEPARTMENT OF EDUCATIONAL LEADERSHIP AND POLICY STUDIES}
(293) (EDAM) Educational Administration

ADD
562 Accountability and Evaluation of School Personnel, Programs, and School Climate (3) Focuses on a comprehensive assessment of school personnel and programs. To achieve that goal, issues related to accountability, school climate, and program evaluation is covered. Additionally, job satisfaction, occupational stress, and job burnout of teachers and principals are discussed.

563 School and Community Relations (3) Examines the multiple communities that comprise and surround our schools. From the students and their families to the faculty members, business and organization members, to the state, district, and school leaders, these groups directly and indirectly influence the teaching and learning that happen in schools. Amidst the focus of educational policy on heightened academic performance and Adequate Yearly Progress, school leaders need the skills to engage these different constituencies and unite them around a shared vision of quality instruction and learning.

565 Data Driven School Leadership (3) Data driven decision making is an introduction to the uses of disciplined inquiry as a tool for planning, problem solving, decision-making, program improvement, and communicating in school and schoolrelated contexts. The goal is to provide students with the quantitative and qualitative techniques that are needed to engage in the process of school improvement planning through the use of empirical data. Students will examine assessment methodologies and the accountability associated with these methods.

567 Human Resources and Supervision (3) Designed to enable school leaders to develop competencies in the supervision, evaluation, and development of teachers and other school personnel. Students will gain an understanding of human resources management, including best practices in the recruitment, hiring, placement, mentoring, and retention of staff. Students will explore the memorandum of agreement between the LEA and the teacher's association as well as strategies for developing professional relationships between schools and teacher organizations.

570 Aspiring Leaders Seminar (3) Designed to provide a link between theory and practice in Educational Administration through planned fieldwork experiences. This seminar is a forum for processing the "on-the-job" experiences with others who are also new to the work of administration. Course is planned not only to provide training situations for developing leadership skills, but also to provide community and school agencies with professional assistance. The foundations for this seminar are the Tennessee Instructional Leader Standards (TILS) and the standards from the Interstate School Leader Licensure Consortium (ISLLC).

572 Financial Leadership in Schools (3) Will provide a significant grounding in education resource management theory and practice, to allow students to acquire a working knowledge of the context of school finance at the national, state and local level, and understand the strategies and mechanics of school resource utilization that are most closely associated with increased student academic success.

574 Leadership for Change (3) Will assist aspiring leaders in developing strategies for implementing change in school settings. Will include emphasis on strategic and long range planning, change models, managing change, and the collaboration, involvement, and motivation of all stakeholders. First and second order change will be emphasized. Students will understand the 21 leadership responsibilities that have a significant effect on student learning. Reform models, as well as transitional and sustainable leadership, will be examined.

578 Organizational Leadership (3) Approaches the processes of leadership through the lens of management. The responsibilities and authority in operating the educational enterprise will be examined. Stresses the processes, protocols, and procedures of the organization. Particular emphasis will be paid to issues of school security, school discipline and classroom management, and media relations. School structures, such as chain of command, scheduling, and staff duties and responsibilities will be covered.

585 Policy, Equity, and Diversity (3) Examines current education policy and programs, particularly as these policies intersect with the issues of race, class, gender, culture and other social justice issues. Various foci of the course include: public school districts, charter schools, vouchers, the role of federal, state, and local policy on the achievement of children, particularly children in underrepresented groups. The study of education policy will be framed around the thematic areas of equity, standards and accountability, choice and privatization, home-school connection, and obstacles to achieving equity and diversity.

587 Educational Law (3) Educators must know the laws that govern the operation and conduct of their organizations as administrators face a highly litigious society. Will study the relevant legal principles that affect the operation, organization, and administration of American schools. Aspiring leaders will gain knowledge about legal issues that will help them in effectively performing their professional duties within the boundaries of constitutional, statutory, and case law. School law focuses on the legal rights, duties, and responsibilities of school personnel. Specific topics in this course include due process, tort liability, negligence, and contracts. Basic legal relationships between employer, colleagues, students, and adults are addressed.

588 Best Practices for School Leaders (3) Designed to acquaint the future school leaders with theories of school leadership and organization that they can employ in their work. Specifically, the course will use organizational theories to examine the practical challenges that leaders face, including faculty structure, alignment of learning standards with curricula and teaching strategies, initiation of new policies or programs, and ongoing evaluation of programs to insure rigorous implementation. Designed to challenge students to examine these different issues through different organizational frames and to collect relevant data before making decisions. Course is based on the assumption that leaders lead from their values and specific frames, and it encourages self-exploration and clarification of additional frames as a strategy to understand events or policies more deeply.

SUPPORTING INFORMATION: Rationale: These courses are part of the curriculum for the new Leadership Academy, a component of the Center for Educational Leadership They will be taught for students who are pursuing master's and education specialist degrees in the Leadership Academy. This is in response to: (a) new regulations mandated by the Tennessee State Department of Education in regards to principal preparation programs; and (b) feedback provided by 23 school districts across the State of Tennessee indicating the knowledge, skills, and dispositions needed by aspiring leaders in their districts.

Financial impact: There is a financial impact for the creation of this new program (i.e., Leadership Academy) in the form of stipends for practitioner partners and interdisciplinary partners. Each class has a practitioner partner and an interdisciplinary partner who collaborate with the instructor of record to deliver the knowledge and skills for that course. Practitioners' partners include principals and school district-level administrators who bring years of experiential knowledge to the program. Interdisciplinary partners are UT faculty members from other colleges/units across the UTK campus. There is also the impact of the need for a Director for the Center for Educational Leadership (This position has already been hired). All of these costs have been covered by the funders for this new Center. The funders (an anonymous donor and Cornerstone Foundation have committed to a four-year period with an amount that is approximately 3 million dollars). We are anticipating that the funders will provide an endowment that will allow the programs of the Center for Educational Leadership to continue well into the future. The College of Education, Health, and Human Sciences is prepared to absorb the additional faculty line (i.e., the Director's position) into its budget over the course of the four years of external funding in the case that funding does not continue. If funding does not continue from the external funders we will have to reconsider the use of practitioner partners and interdisciplinary partners. New methods of funding these positions will have to be explored. While their removal from the program would have a negative impact (based on research on effective principal preparation programs), the courses could still be taught by the instructors of record.
(461) (HEAM) Higher Education Administration

580 CSP Capstone Seminar (3) Seminar is designed to provide a transition between programmatic preparation and professional practice. The course is multi-themed, involves a service learning component, and seeks to ensure that students in the program leave with a clear sense of what it means to be a student affairs practitioner, what is needed to be effective in the field, and what they bring to that world of practice.

\section*{DEPARTMENT OF EDUCATIONAL PSYCHOLOGY AND COUNSELING}

\section*{(255) (COUN) Counselor Education}

ADD
540 Psychopharmacology for Mental Health and School Settings (3) Psychoactive medications are an increasing part of mental health treatment and counselors often serve on treatment teams with responsibilities for input to medical decisions and monitoring potential effects. Educates counselors in the basic pharmacological concepts of drugs in general, with specific emphasis on psychoactive medications, classifications, appropriate referrals, and monitoring. As counseling is a non-medical field, it is assumed that the student has not been exposed to a previous pharmacology course and/or clinical experience with the medication management of clients.

560 Practicum in Grief Support (3) Supervised practice and application of knowledge and skills about grief, loss, and life transitions.

562 Child Centered Play Therapy (3) Focuses on preparing counselors and professionals in related mental health fields to use child-centered play therapy as a powerful, effective method for helping children overcome a wide range of behavioral and emotional problems. Lecture, discussion, demonstration, and mock play sessions are employed to help students gain the necessary skills to build strong therapeutic relationships with children. Also addresses the history and context of play therapy and serves to enhance understanding of children, play, and therapeutic relationships for all ages.

563 Crisis Intervention for Counselors (3) Advanced course designed to introduce the development of crisis intervention methodologies, differences among psychotherapeutic approaches, a problem-solving approach to working with a client in crisis, and application of crisis counseling theory with various types of crises.

662 Advanced Theory and Practice of Counseling (3) An in-depth exploration of theories of human nature and the practice of counseling.
Comments: Requires admission to PhD program in Counselor Education or consent of instructor.
Registration Restriction(s): Minimum student level - graduate.
SUPPORTING INFORMATION: Rationale: Course 662 is a re-instatement of the COUN 660 course inadvertently dropped in 2009. The course is one of 4 theory and practice courses that form the core instruction in the Ph.D. concentration in Counselor Education. This course meets requirements dictated by the Council for Accreditation of Counseling and Related Educational Programs (CACREP) and reflected in the new 2009 standards. Financial Impact: None. Previously offered as COUN 660.

\section*{Equivalency Chart}
\begin{tabular}{|c|c|}
\hline Course dropped fall 2010 & Course Effective Fall 2011 \\
\hline Counselor Education(COUN) 660 & Counselor Education (COUN) 662 \\
\hline
\end{tabular}

664 Systems and Issues in Counseling Children and Youth (3) Theoretically and experientially explores current and relevant issues and systems-related interventions such as university-assisted community schools, charter schools, the Harlem Children's Zone, juvenile corrections, and mental health from a counseling perspective. Within the context of children and youth, systems theory and counseling interventions focus on a number of systems theories and counseling interventions.
Registration Restriction(s): Minimum student level - graduate.

REVISE TO ADD (DE) PREREQUISITE(S)
550 Foundations in School Counseling (3)
(DE) Prerequisite(s): 535.

REVISE (RE) PREREQUISITES
559 Internship in Mental Health Counseling (1-6)
(RE) Prerequisite(s): 525, 555, and School Psychology 690.
(271) (CSE) Cultural Studies

560 Introduction to Qualitative Research in Education (3) Fundamentals of qualitative methods. Overview of various qualitative approaches, data collection and analysis methods. Focus on skill development for data collection through interviews, observation, and document analysis, as well as the importance of reflexivity as a qualitative researcher. Cross-listed: (Same as Educational Psychology 555.)

\section*{(310) (EDPY) Educational Psychology}

\section*{REVISE DESCRIPTION OF SECONDARY CROSS-LISTED COURSE}

555 Introduction to Qualitative Research in Education (3) Fundamentals of qualitative methods. Overview of various qualitative approaches, data collection and analysis methods. Focus on skill development for data collection through interviews, observation, and document analysis, as well as the importance of reflexivity as a qualitative researcher. Cross-listed: (See Cultural Studies 560.)

\section*{REVISE TO ADD REPEATABILITY}

660 Evaluation, Statistics, and Measurement Research Seminar (1)
Repeatability: May be repeated: Maximum 5 hours.

REVISE TO DROP (RE) PRERREQUISITE
671 Advanced Seminar in Applied Educational Psychology (3)
(901) (SCHP) School Psychology

REVISE TITLE AND DESCRIPTION
690 Psychopathology in School and Mental Health Settings (3) Descriptive and critical study of psychopathology of childhood, youth, and adults and of systems of nomenclature applied to individuals with mental disorders: nomenclature provided in State Department of Education's Student Evaluation Manual and Diagnostic and Statistical Manual of Mental Disorders of American Psychiatric Association. Considerations for treatment selection and planning are included.

DEPARTMENT OF KINESIOLOGY, RECREATION, AND SPORT STUDIES
(590) (KNS) Kinesiology

REVISE TITLE, DESCRIPTION, AND GRADING (FROM A-F TO S/NC GRADING)
662 Seminar in Biomechanics (1-3) Selected topics on research in biomechanics and related areas.
Grading Restriction: Satisfactory/No Credit grading only.
REVISE TO ADD (RE) PREREQUISITE
540 Research Development in Sport Psychology: Data Analysis to Manuscript Submission (3)
(RE) Prerequisite(s): 539.

\section*{REVISE TO ADD REGISTRATION RESTRICTION}

535 Health and Exercise Psychology (3)
Registration Restriction(s): Must be majors within the Department of Kinesiology, Recreation, and Sport Studies or permission of the instructor. Minimum student level - graduate.

538 Professional Practice Issues in Kinesiology (3)
Registration Restriction(s): Must be majors within the Department of Kinesiology, Recreation, and Sport Studies or permission of the instructor. Minimum student level - graduate.

REVISE TO ADD REGISTRATION RESTRICTION AND DROP REGISTRATION PERMISSION
533 Psychology of Sport (3)
Registration Restriction(s): Must be majors within the Department of Kinesiology, Recreation, and Sport Studies. Minimum student level - graduate.

534 Motor Behavior and Skill Acquisition (3)
Registration Restriction(s): Kinesiology major or concentration. Minimum student level - graduate.
536 Expert Performance in Sports (3)
Registration Restriction(s): Kinesiology major or concentration. Minimum student level - graduate.
539 Research Development in Sport Psychology: Idea Formation to Data Collection (3)
Registration Restriction(s): Must be majors within the Department of Kinesiology, Recreation, and Sport Studies.
Minimum student level - graduate.

Registration Restriction(s): Must be majors within the Department of Kinesiology, Recreation, and Sport Studies. Minimum student level - graduate.

633 Advanced Sport Psychology (3)
Registration Restriction(s): Must be majors within the Department of Kinesiology, Recreation, and Sport Studies. Minimum student level - graduate.
(850) (RSM) Recreation and Sport Management

ADD
505 Therapeutic Recreation in Public Schools (3) Concepts and techniques of working with children with disabilities in the public schools special education classes. Students will gain an understanding of various disabling conditions that children with special needs have and how to work with these children. Students will be involved in writing lesson plans, documenting progress, writing progress notes, writing evaluation reports, and leading activities with children in the school setting.
Registration Restriction(s): Recreation and Sport Management majors. Minimum student level - graduate.
525 Advanced Therapeutic Recreation Programming (3) Principles and practices of therapeutic recreation programming for individuals with multiple disabilities. Focus is on the social, interpersonal, and behavioral aspects of working with children and young adults with disabilities in recreational environments.
Contact Hour Distribution: Includes lab.

REVISE TITLE
554 Issues and Trends in Recreation and Sport Management (3)

REVISE TITLE AND ADD REGISTRATION RESTRICTION
515 Philosophical and Conceptual Foundations of Recreation (3)
Registration Restriction(s): Recreation and Sport Management majors. Minimum student level - graduate.

\section*{REVISE REGISTRATION RESTRICTION(S)}

570 Event Management (3)
Registration Restriction(s): Recreation and Sport Management or Kinesiology major. Minimum student level - graduate.

\section*{REVISE (RE) PREREQUISITES}

521 Facilitation Techniques in Therapeutic Recreation (3)
(RE) Prerequisite(s): 520.

REVISE TO ADD REPEATABILITY
590 Practicum (3)
Repeatability: May be repeated. Maximum 9 hours.

\section*{(959) (SPST) Sport Studies}

\section*{REVISE PRIMARY CROSS-LISTED COURSE TO ADD REGISTRATION RESTRICTION}

\section*{543 Women, Sport and Culture (3)}

Cross-listed: (Same as Kinesiology 543 or Women's Studies 543.)
Registration Restriction(s): Must be major within the Department of Kinesiology, Recreation, and Sport Studies or permission of instructor.

\section*{DEPARTMENT OF NUTRITION}
(726) (NUTR) NUTRITION

ADD
616 Maternal and Child Nutrition (3)
(DE) Prerequisites: 511 and 543.
Recommended Background: Advanced Nutrition or consent of instructor.
Registration Restriction(s): Minimum student level - graduate.
DROP
516 Maternal and Child Nutrition (3)

SUPPORTING INFORMATION: Rationale: Course 516 has developed into a course which critically evaluates cuttingedge research and thus is more in alignment with a doctoral-level course ( \(600-\mathrm{level}\) ). For this reason, we are requesting a change in course number to reflect the course content. Impact on other units: None. Financial impact: None.

Equivalency Chart
\begin{tabular}{|c|c|}
\hline Existing Course Fall 2010 & Course effective Fall 2011 \\
\hline Nutrition (NUTR) 516 & Nutrition (NUTR) 616 \\
\hline
\end{tabular}

REVISE (RE) PREREQUISITES
515 Field Study in Community Nutrition (1-12)
(RE) Prerequisite(s): 505 and 506.

REVISE GRADING (FROM LETTER GRADE TO S/NC) AND ADD REPEATABILITY
519 Analysis of Practice in Community Nutrition (3)
Grading Restriction: Satisfactory/No Credit grading only.
Repeatability: May be repeated. Maximum 6 hours.

REVISE TO ADD (DE) COREQUISITE
523 Nutrition Counseling Practicum (1)
(DE) Corequisite(s): 522.

REVISE TO ADD (DE) PREREQUISITE
618 Nutrition and Aging (3)
(DE) Prerequisite(s): 511.

\section*{DEPARTMENT OF PUBLIC HEALTH}
(839) (PUBH) Public Health

ADD
528 Public Health Leadership (3) Principles and practices of leadership within public health and community settings. Leadership and the core public health functions of assessment, policy development, and assurance. Enhancing communication, decision making, team-building, and conflict resolution skills. Leadership for planning process and organizational change. Review of case studies and skill-building exercises.

Rationale: This course is a requirement for the new Graduate Certificate: Public Health Leadership. This course, previously numbered 522, was previously instructed online during three separate fall semester (2005, 2006, and 2007). It will use electronically mediated methods to allow working students to participate without travel and with minimal disruption of their work routine. Impact: This online course will not impact other academic departments. Financial Impact: Support for instruction of this course will be provided to the Department by a federal grant, sub-agreement.

\section*{ADD AND CROSS-LIST AS SECONDARY COURSES}

612 Health and Nursing Policy/Planning (3) Policies affecting nursing education and practice; health policies and political processes; interactions between health professionals, consumer groups, and government in health policy development and health planning activities.
Cross-listed: (See as Nursing 612.)
Registration Restriction(s): Minimum student level - graduate.
614 Nursing Preceptorship in Health Policy (1-3) Individually-designed practicum, field, or internship experiences in variety of administrative, educational, research, or clinical practice settings.
Cross-listed: (See Nursing 614.)
Repeatability: May be repeated. Maximum 6 hours.
(RE) Prerequisite(s): Nursing 601.
Registration Restriction(s): Minimum student level - graduate.

509 Young Adult Literature in the Secondary School, Grades 7-12 (3) Content varies. Theoretical and practical approaches to using young adult literature in the secondary English classroom.

\section*{(642) (MEDU) Math Education}

REVISE TO ADD (RE) PREREQUISITE

\section*{550 Mathematics Assessment(3)}
(RE) Prerequisite(s): 485 or consent of Instructor.

\section*{REVISE TO ADD COMMENT}

\section*{583 Teaching Mathematics in Senior High Schools and Community Colleges (3)}

Comment(s): Undergraduate degree in mathematics or consent of instructor.

\section*{REVISE TO DROP COMMENT AND ADD REGISTRATION RESTRICTION}

\section*{485 Teaching of Mathematics Grades 7-12 (3)}

Registration Restriction: Admission to Teacher Education required or consent of Instructor.

REVISE TO DROP (RE) PREREQUISITE
523 Diagnosis and Correction of Children's Difficulties in Learning Mathematics (3)

REVISE RECOMMENDED BACKGROUND
622 Research Trends in Mathematics Teacher Education (3)
Recommended Background: 2 graduate courses in mathematics education.
(899) (SCED) Science Education

ADD
550 Classroom Assessment and Evaluation Techniques (3) Explores the theoretical and practical aspects of summative and formative assessment techniques used in science classrooms across grade levels.

REVISE TITLE AND DROP CREDIT LEVEL RESTRICTION AND REGISTRATION RESTRICTION 509 Global Science Education: Making Connections (3)

REVISE TO ADD REGISTRATION RESTRICTION
496 Teaching Science Grades 7-12 (3)
Registration Restriction: Admission to Teacher Education required or consent of Instructor.
628 Advanced Studies in Science Education (3)
Recommended Background: 2 graduate level science education courses or consent of Instructor.
Registration Restriction: Minimum student level - graduate.
696 Research Trends in Science Education (3)
Recommended Background: 2 graduate level science education courses or consent of Instructor.
Registration Restriction: Minimum student level - graduate.
(978) (TPTE) Theory and Practice in Teacher Education

REVISE HOURS AND ADD REPEATABILITY STATEMENT
574 Analysis of Teaching for Professional Development (2-3)
Repeatability: Not repeatable. May be taken once for 2-3 hours.
591 Clinical Studies (3-4)
Repeatability: Not repeatable. May be taken once for 3-4 hours.

\section*{II. PROGRAM CHANGES}

\section*{DEPARTMENT OF CHILD AND FAMILY STUDIES}

REVISE REQUIREMENTS - CHILD AND FAMILY STUDIES MAJOR, PHD
In the 2010-2011 Graduate Catalog revise the research methods hours, footnote 3, and total hours required as follows:
Research Methods (12 hours)
CFS 570; CFS 633 or CFS 660; CFS 633, CFS 650, or CFS 660; an advanced specialized research methods course. Can include one course from master's degree.

Program total hours..... 86

\section*{DEPARTMENT OF EDUCATIONAL LEADERSHIP AND POLICY STUDIES}

ADD HEADING AND TEXT FOR: CENTER FOR EDUCATIONAL LEADERSHIP
In the 2011-2012 Graduate Catalog add heading and text for Center for Educational Leadership after the heading for the Educational Administration major as follows:

\section*{The Center for Educational Leadership}

The Center for Educational Leadership, through its Leadership Academy, offers a 15-month intensive leadership preparation program that offers a Master of Science degree with a major in Educational Administration or a Specialist in Education degree with a major in Education (concentration in Educational Administration). Students (called "Fellows") in the Leadership Academy must be available on Monday through Thursday of each week for an intensive internship experience under the direction of a school mentor (e.g., the school principal). On Fridays, classes are conducted in order to complete the required curriculum and meet the knowledge and skill standards for initial certification as a beginning school leader. Admission to the Leadership Academy is highly selective. Information about the Leadership Academy and the application process can be obtained from http://cel.utk.edu.
\[
\begin{aligned}
& \text { ADD CONCENTRATION - EDUCATIONAL ADMINISTRATION - MS } \\
& \text { Leadership Academy concentration }
\end{aligned}
\]

In the 2011-2012 Graduate Catalog add heading, text, and requirements for new concentration.

\section*{Educational Administration major, MS - Leadership Academy concentration}

The Master of Science degree with a major in Educational Administration, concentration in Leadership Academy, requires 33 hours of coursework. The internship, which includes a minimum of 400 hours of field-based experience under the mentor's direction, is supervised through course EDAM 570. A final comprehensive examination is required and includes a minimum competency score on the School Leader Licensure Assessment, the submission and presentation of a professional learning portfolio (PLP) and an action research paper on a topic relevant to educational leadership.

\section*{Requirements}

Core requirement courses
EDAM 563
EDAM 588
EDAM 567
EDAM 574
Specialization courses
Credit hours
12

EDAM 587
EDAM 585
EDAM 578
EDAM 576
EDAM 572
Research course
3
EDAM 565
Internship course
3
EDAM 570
Total required hours

ADD HEADING, TEXT, AND REQUIREMENTS FOR THE LEADERSHIP ACADEMY SPECIALIZATION - EDUCATION MAJOR, EDS - EDUCATIONAL ADMINISTRATION CONCENTRATION

In the 2011-2012 Graduate Catalog add heading, text, and requirements for the new leadership academy specialization.

\section*{Education Major, EdS - Educational Administration concentration (Leadership Academy Specialization)}

The Specialist in Education degree, with a major in Education, concentration in educational administration with a specialization in leadership academy requires 39 hours of coursework and an internship, which includes a minimum of 400 hours of field-based experience under the mentor's direction. The internship is supervised through EDAM 570. A final comprehensive examination is required and includes a minimum competency score on the School Leader Licensure Assessment, the submission and presentation of a professional learning portfolio (PLP) and an action research paper on a topic relevant to educational leadership.

\section*{Requirements for Leadership Academy Specialization}

Core requirement courses
EDAM 563
EDAM 588
EDAM 567
EDAM 574
Specialization courses
EDAM 587
EDAM 585
EDAM 578
EDAM 576
EDAM 572
Research courses
EDAM 565
EDAM 592
\({ }^{1}\) EDPY 577
Internship course

\section*{Credit hours}

12
12


15

9

3
EDAM 570
Total required hours
\({ }^{1}\) Alternate research elective from outside educational administration must be chosen in consultation with advisor.
SUPPORTING INFORMATION: Rationale: This is in response to: (a) new regulations mandated by the Tennessee State Department of Education in regards to principal preparation programs; and (b) feedback provided by 23 school districts across the State of Tennessee indicating the knowledge, skills, and dispositions needed by aspiring leaders in their districts.

It is important to note that this new specialization will be running parallel to our "traditional" principal preparation program (i.e., Certificate, M.S., or Ed.S.). We have 5 faculty members (one to be hired for June/August 2011 due to a retirement in 2010) who have their teaching responsibilities in the Educational Administration and Supervision programs in the Department of Educational Leadership and Policy Studies. With a 2-2 load each fall and spring semester, we offer 8 courses for students across the various programs (i.e., MS, EdS, Certificate, and PhD) we offer in the department. Additionally, the degrees to be offered through the Center for Educational Leadership require (by original design and requested by the funding source) collaboration from practitioners/administrators in the field. We hire these instructors as clinical faculty, but they include people like Dr. Jim McIntyre who is the Superintendent of Knox County Schools. He teaches "Financial Leadership in Schools" and brings to this teaching position a doctoral degree and years of experience as the CFO for the Boston School District. Of the 10 courses we are proposing, three will be taught by clinical faculty with terminal degrees in these areas. This blending of theory and practice is an important undergirding principle in the Leadership Academy coursework.
Financial impact: There is a financial impact for the creation of this specialization (Leadership Academy) in the form of stipends for practitioner partners and interdisciplinary partners. Each class has a practitioner partner and an interdisciplinary partner who collaborate with the instructor of record to deliver the knowledge and skills for that course. Practitioners' partners include principals and school district-level administrators who bring years of experiential knowledge to the program. Interdisciplinary partners are UT faculty members from other colleges/units across the UTK campus. All of these costs have been covered by the funders for this new Center. The funders (an anonymous donor and Cornerstone Foundation have committed to a four-year period with an amount that is approximately 3 million dollars). We are anticipating that the funders will provide an endowment that will allow the programs of the Center for Educational Leadership to continue well into the future. The College of Education, Health, and Human Sciences is prepared to absorb the additional faculty line (i.e., the Director's position) into its budget over the course of the four years of external funding in the case that funding does not continue. If funding does not continue from the external funders we will have to reconsider the use of practitioner partners and interdisciplinary partners. New methods of funding these positions will have to be explored. While their removal from the program would have a negative impact (based on research on effective principal preparation programs), the courses could still be taught by the instructors of record.

\section*{DEPARTMENT OF EDUCATIONAL PSYCHOLOGY AND COUNSELING}

\section*{REVISE DEPARTMENT INTRODUCTORY TEXT}

In the 2010-2011 Graduate Catalog delete the two introductory paragraphs and headings and text for Adult Education; Evaluation, Statistics and Measurement concentration; Counseling Programs; and School Psychology Programs and replace with the following two paragraphs. (Note, this is just a clean-up of the introductory text. We are not deleting the program headings and text).

The majors offered by the Department of Educational Psychology and Counseling prepare graduates to work in schools, higher education, mental health agencies, and business and industry. The eight degree areas include three Master of Science degrees with a major in Counseling, Education, or Educational Psychology; a Specialist in Education degree with a major in Education; and four doctoral majors: Counselor Education, Education, Educational Psychology and Research, and School Psychology. All master's degree majors have concentrations, the one Ed.S. major has three concentrations, and one doctoral major has two concentrations. Three graduate certificates are also available.

All degree programs in the department that can be accredited are accredited: two doctoral majors operate under the supervision of national accrediting agencies. Counselor Education is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP), and the School Psychology Ph.D. program is accredited/approved by American Psychological Association (APA), the National Association of School Psychologists (NASP), and the National Council for Accreditation of Teacher Education (NCATE). Two master's concentrations, Mental Health Counseling and School Counseling, are also accredited by CACREP. The master's concentration in Rehabilitation Counseling is accredited by the Council on Rehabilitation Education, Inc. (CORE).

\section*{REVISE TEXT AND SHOWCASE: COUNSELING MAJOR, MS - MENTAL HEALTH CONCENTRATION}

In the 2010-2011 Graduate Catalog delete the first two paragraphs and replace with the following. Also, delete current showcase and replace with the following.

\section*{Mental Health Counseling Concentration}

The focus of the mental health counseling concentration is the preparation of excellent counselor practitioners and scholars to serve in agencies that provide counseling to adolescents, children, adults and families (such as outpatient and inpatient mental health treatment centers, programs serving troubled youth and families, hospitals, counseling and related service programs in colleges and universities, drug and alcohol treatment programs, and private practices). Our graduates are self-aware counselors and scholars whose lifelong learning continually informs their service, practice, and development. Many also choose to continue their graduate studies at the doctoral level.

The mental health counseling concentration at the University of Tennessee is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). The program of study includes a minimum of 1000 hours of supervised practicum and internship counseling experiences in clinical settings. Each student's plan of study is customized to support individual goals as well as to provide a common core of counselor preparation. Graduates will have completed the educational and graduate clinical preparation requirements for licensure as a professional counselor with mental health service provider designation (LPC-MHSP) in Tennessee. CACREP accreditation helps ensure the portability of the degree. For example, the counselor licensure requirements of many states match the CACREP standards for Mental Health Counseling Programs.
Requirements39
SCHP 690 ..... 3
EDPY 550 (Research course) ..... 3
Human development course, approved by advisement ..... 3
Four electives or a thesis (COUN 500 for 6 hours and two electives) ..... 12
Total required hours ..... 60

\section*{REVISE TEXT: COUNSELING MAJOR, MS - REHABILITATION COUNSELING CONCENTRATION}

In the 2010-2011 Graduate Catalog, revise the first sentence in the first paragraph and the 1st sentence under Distance Education to read as follows:

\section*{Rehabilitation Counseling Concentration}

The purpose of the rehabilitation counseling concentration is to ensure that skilled personnel are available to serve the rehabilitation needs of individuals with disabilities assisted through vocational rehabilitation (VR), supported employment, and independent living programs.

\section*{Distance Education}

The rehabilitation counseling concentration offers instruction in the 48 -hour track through distance delivery. Students interested in pursuing this option should contact the program coordinator (see below).

REVISE TEXT: COUNSELING MAJOR, MS - SCHOOL COUNSELING CONCENTRATION
In the 2010-2011 Graduate Catalog delete current paragraph and replace with the following:
The master's school counseling concentration ( 48 hours) is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). Its purpose is to develop graduates who will assume the major responsibilities of a counselor within elementary and secondary schools. Applicants for degrees in this field must present satisfactory evidence of academic ability and adequacy of personal characteristics and goals as determined by recommendations of employers, instructors, and colleagues, and by scores of the aptitude portion of the Graduate Record Examination. The concentration requires a 600 -hour internship in a school site during the second year to prepare students for practice. Students enrolled complete a program that includes core courses, clinical courses, and electives. Those applicants who have not had teaching experience may be required to complete additional classes. Graduates will fulfill the license requirements for PreK-12 School Counseling in Tennessee and in most states of the United States although some states may have additional experience and testing requirements.

\section*{REVISE TEXT: EDUCATION MAJOR, MS - CULTURAL STUDIES OF EDUCATIONAL FOUNDATIONS} CONCENTRATION

In the 2011-2012 Graduate Catalog add introductory paragraph as follows:
The concentration's intellectual identity emerges from a post-disciplinary orientation which includes coursework and research across the traditions of anthropology, history, philosophy, psychology, sociology, and women's studies.
Academically based community service, community based participatory research, and philosophical, ethnographic, and feminist inquiry in the program coursework address fundamental issues in education and relations of power.

REVISE TEXT AND SHOWCASE: EDUCATION MAJOR, MS - INSTRUCTIONAL TECHNOLOGY CONCENTRATION In the 2010-2011 Graduate Catalog add introductory paragraph and revise showcases as follows:

\section*{Instructional Technology Concentration}

The department offers a concentration in Instructional Technology under the Master of Science degree with a major in Education. Thesis and non-thesis options are available. The degree prepares leaders for K-12 schools and school systems, for education-related positions in organizations, and for teaching and supervisory positions at the college level. For details visit: http://epc.utk.edu/instructional_technology/

Instructional Technology Concentration (Thesis Option)
\begin{tabular}{lc} 
& Hours Credit \\
Foundations & 6 \\
Concentration core & 12 \\
Electives & 6 \\
Research elective & 3 \\
IT 500 & 6 \\
Total & \(\mathbf{3 3}\)
\end{tabular}

\section*{Instructional Technology Concentration (Non-Thesis Option)}
\begin{tabular}{lc} 
& Hours Credit \\
Foundations & 6 \\
Concentration core & 12 \\
Electives & 12 \\
Research elective & 3 \\
Total & \(\mathbf{3 3}\)
\end{tabular}

\section*{REVISE TEXT: EDUCATIONAL PSYCHOLOGY MAJOR, MS - ADULT EDUCATION CONCENTRATION}

In the 2010-2011 Graduate Catalog delete current sentence under Requirements heading and replace with the following:

\section*{Requirements}

The adult education concentration involves a minimum of 36 hours of course work (except for the thesis option, which is 33 hours minimum). Programs typically consist of the following.

In the 2010-2011 Graduate Catalog delete the two introductory paragraphs and replace with the following:

This master's program focuses on concepts, principles, techniques and models of educational psychology as they are used to facilitate teaching and learning and the creation of effective classroom environments for learners of all ages. The concentration includes traditional themes in educational psychology (e.g., human development, learning principles, assessment, and psycho educational intervention). It is unique in its focus on meeting the needs of nontraditional and underachieving learners from birth through adulthood through the use of cognitive education interventions.

The concentration may be used as a stepping stone for entering a doctoral program in educational or school psychology or as an additional preparation for functioning in an educational role in schools, mental health centers, and business programs devoted to personal and professional development. The faculty members in the Department of Educational Psychology and Counseling are committed to the creation and study of environments that enhance learning potential and promote lifelong learning for people of all ages, abilities, and backgrounds.

REVISE TEXT AND SHOWCASE EDUCATION MAJOR, EDS - INSTRUCTIONAL TECHNOLOGY CONCENTRATION
In the 2010-2011 Graduate Catalog add website link at end of introductory paragraph and delete current showcase and replace with the following:
...possess a master's degree in education or a related field. For details, visit: http://epc.utk.edu/instructional_technology
\begin{tabular}{lr}
\({ }^{1}\) Requirements & \\
Concentration core & 15 \\
\({ }^{2}\) Electives & 9 \\
Research & 6 \\
Total hours required & \(\mathbf{3 0}\)
\end{tabular}
\({ }^{1}\) Must hold master's degree in education or related field.
\({ }^{2}\) Two courses ( 6 hours) must be taken outside the IT program area.
Rationale: We are not requiring specific courses for the concentration core, rather we will advise students in this area. We are eliminating the thesis and problems in lieu of thesis option in favor of only the non-thesis option. Rather than providing all three options (thesis, non-thesis, and problems in lieu of thesis), we will now offer only a non-thesis option. A thesis option is still available as part of the M.S. degree. No Ed.S. Graduate students have chosen to do the thesis option in the past.

\section*{REVISE TEXT EDUCATION MAJOR, EDS - SCHOOL PSYCHOLOGY CONCENTRATION}

In the 2010-2011 Graduate Catalog under Requirements heading, delete the first sentence and replace with the following:

\section*{Requirements}

This concentration typically requires four years beyond the Bachelor's degree to complete and requires a minimum of 79 graduate hours, which includes course work, field experiences, and an internship completed in the final academic year.

\section*{REVISE TEXT AND REQUIREMENTS (IN TWO AREAS) COUNSELOR EDUCATION MAJOR, PHD}

In the 2010-2011 Graduate Catalog, introductory text, second paragraph, first sentence: delete first three words (The doctoral program) and replace with (The major). Should read: The major requires advanced course work...

In the 2010-2011 Graduate Catalog, under Requirements heading, revise the first sentence as follows:

\section*{Requirements}

Coursework for the counselor education doctoral program includes the following.
More detailed information about course work is available in the program handbook and through the advising process.

\section*{REVISE TEXT: EDUCATION MAJOR, PHD-LEARNING ENVIRONMENTS AND EDUCATIONAL STUDIES CONCENTRATION}

In the 2010-2011 Graduate Catalog delete the first paragraph and replace with the following. Other text remains as is.
The learning environments and educational studies (LEEDS) doctoral concentration explicitly links the fields of cultural studies, human learning and development from an applied educational psychology perspective, and instructional technology to prepare graduates to work in high level professional careers in a wide range of settings such as higher education, K-12 education, community-based agencies and community-based participatory research, research institutions and other applied educational, social and political settings. The mission of the doctoral concentration in Learning Environments and Educational Studies (LEEDS) in the Department of Educational Psychology and Counseling is to ground students in theoretical, philosophical and research foundations of human learning and development, cultural and social contexts of educational environments (both formal and informal), the design process of technology-supported learning environments, and skills for inquiring into and critiquing these environments.
http://web.utk.edu/~edpsych/LEEDS/default.html

\section*{REVISE TEXT: EDUCATIONAL PSYCHOLOGY AND RESEARCH MAJOR, PHD - ADULT LEARNING CONCENTRATION}

In the 2010-2011 Graduate Catalog delete the first and second paragraph and replace with the following:
The doctoral concentration in adult learning serves the needs of individuals who work with adult learners in diverse settings, including business, government, higher education, and non-profit organizations. Emphasis of the concentration is on the development of reflective practitioners and engaged scholars who actively participate in leadership and service that promotes lifelong learning in a global community. It focuses on three areas of study and practice: 1) self-directed learning, 2) transformative learning, and 3) reflective practice. In addition to addressing more general areas of adult learning, core faculty offer their expertise in their supervision of student research and in their respective courses. For example, faculty members' expertise may serve as the focus of proseminars, especially as the seminars focus on evolving research in related disciplines, research methodologies, and exemplars of notable studies in the three areas of adult learning.

A Master's degree is not required for students who apply for admission to the concentration. For students who are admitted to the concentration, prior graduate work will be examined on a case-by-case basis as it might be used to satisfy the overall course requirements of the concentration. Students may use up to 24 semester credit hours of prior coursework for this purpose.

\section*{REVISE TEXT AND REQUIREMENTS: EDUCATIONAL PSYCHOLOGY AND RESEARCH MAJOR, PHD EVALUATION STATISTICS AND MEASUREMENT CONCENTRATION}

In the 2010-2011 Graduate Catalog delete the last sentence of the introductory paragraph and replace with the following:
...and faculty members want to study and work. This concentration combines elements of theory, methods, and hands-on applications to provide students with relevant knowledge, skills, and dispositions for engaging in research, teaching, and/or the practice of evaluation, statistics, or measurement.

In the 2010-2011 Graduate Catalog under Requirement heading, delete current requirements and showcase and replace with the following:

\section*{Requirements}

The PhD concentration in Evaluation, Statistics, and Measurement involves a minimum of 90 hours beyond the baccalaureate degree distributed among the following categories.
\begin{tabular}{lr} 
& Hours/Credit \\
\({ }^{1}\) Basic Concentration & 21 \\
\({ }^{2}\) Advanced Concentration & 18 \\
\({ }^{3}\) Research & 15 \\
\({ }^{4}\) Cognate & 6 \\
\({ }^{5}\) Electives & 6 \\
\({ }^{6}\) Dissertation & 24 \\
Total hours required & 90
\end{tabular}
\({ }^{1}\) The basic concentration consists of the following courses: EDPY 601, EDPY 582, EDPY 533, EDPY 555, EDPY 577, EDPY 677, and EDPY 660 ( 660 is a one credit hour course taken five times).
\({ }^{2}\) The advanced concentration consists of the following courses: EDPY 651, EDPY 652, EDPY 534, EDPY 670 (a threehour course taken at minimum of two times), and EDPY 678.
\({ }^{3}\) Research courses must include EDPY 581 and EDPY 583 as well as three additional courses chosen from the following: EDPY 505, EDPY 506, EDPY 530, EDPY 531, EDPY 550, EDPY 661, EDPY 662, EDPY 663 or CSE 625, CSE 660 or COUN 525, or IOP 627 or PSYC 521, PSYC 522, PSYC 607, any statistics course above 500, or other approved options (contact program faculty for a complete list of options).
\({ }^{4}\) Students, in consultation with their advisor, must select two courses outside ESM that complement their professional focus.
\({ }^{5}\) Students, in consultation with their advisor, select two courses focused on content areas they expect to address as professionals.
\({ }^{6}\) Students will enroll in a minimum of 24 hours of dissertation at the conclusion of their coursework.

\section*{- ADD CERTIFICATE - GRIEF, LOSS, AND TRAUMA}

In the 2011-2012 Graduate Catalog add text and requirements for new certificate: Grief, Loss, and Trauma.
Grief, Loss, and Trauma Graduate Certificate

The graduate certificate in grief, loss, and trauma is intended for currently admitted graduate students wishing to acquire knowledge and develop clinical skills to work with individuals who have experienced or are experiencing grief, loss, or trauma. Certificate candidates must currently be admitted to a graduate program at the university or hold a terminal degree and be admitted to the graduate school. All 12 hours of course work for the certificate must be completed at the University of Tennessee within a five-year period. A minimum 3.5 GPA must be earned in all certificate courses. An important part of the program is COUN 560 for graduate students who participate as grief facilitators in the Grief Outreach Initiative.

\section*{Requirements:}

COUN 560
At least one of the following: COUN 480, CFS 505
At least two of the following: COUN 431, COUN 554, COUN 551, COUN 660, COUN 562, CFS 511, CFS 562, CFS 566

REVISE CERTIFICATE REQUIREMENTS: EVALUATION, STATISTICS, AND MEASUREMENT
In the 2010-2011 Graduate Catalog under Requirements, remove \(6^{\text {th }}\) bullet and replace with the following:
- One of the following: EDPY 678 or PSYC 607.

REVISE CERTIFICATE REQUIREMENTS: QUALITATIVE RESEARCH METHODS IN EDUCATION
In the 2010-2011 Graduate Catalog revise the certificate requirements as follows:
1) Revise first sentence: remove 12 -hour and replace with 15 -hour. (The 15 -hour graduate certificate in...)
2) Under requirements heading, delete current requirements and replace with the following:

\section*{Requirements}

CSE 560/EPDY 555.
At least one of the following: CSE 661/EPDY 661, CFS 650, EDAM 618.
At least three of the following: EDPY 631, EDAM 617/HEAM 617, CSE 660, CSE 526.
Attainment of a minimum 3.5 grade point average in the certificate coursework.
Completed peer-reviewed qualitative research study, such as a conference presentation, completed qualitative dissertation, or qualitative research presentation.

Other courses may, where appropriate, be substituted for the courses listed above with permission of the program coordinator.

SUPPORTING INFORMATION: Rationale: We are increasing the number of hours from 12 to 15 to provide the depth and breadth of knowledge and skills required for students to successfully undertake qualitative research studies. We are changing coursework requirements to be consistent with current course offerings. We are requiring achievement of a minimum 3.5 grade point average and a capstone project to demonstrate student mastery of these skills. Impact on other units: The original development of the certificate was a collaborative effort between departments in the college; all parties have approved the changes. Financial impact: None.

\section*{DEPARTMENT OF KINESIOLOGY, RECREATION, AND SPORT STUDIES}

\section*{REVISE REQUIREMENTS: KINESIOLOGY MAJOR, MS - BIOMECHANICS CONCENTRATION}

In the 2010-2011 Graduate Catalog revise course requirements by removing KNS 602 from the list of required courses.

\section*{REVISE REQUIREMENTS: KINESIOLOGY MAJOR, MS - EXERCISE PHYSIOLOGY CONCENTRATION}

In the 2010-2011 Graduate Catalog revise course requirements by removing KNS 602 from the list of required courses.

REVISE REQUIREMENTS: KINESIOLOGY MAJOR, MS - SPORT PSYCHOLOGY AND MOTOR BEHAVIOR CONCENTRATION
In the 2010-2011 Graduate Catalog revise course requirements as follows:
1) In first paragraph remove last sentence and replace with the following: The following courses are required:
2) Remove current required courses and replace with the following:

KNS 533 Psychology of Sport (3)
KNS 534 Motor Behavior and Skill Acquisition (3)

KNS 535 Health and Exercise Psychology (3)
KNS 538 Professional Practice Issues in Kinesiology(3)
In addition, 3 hours must be selected from the following list of courses:
KNS 490 Psychology of Coaching (3) (must be taken for graduate credit)
KNS 536 Expert Performance in Sports (3)
KNS 543 Women, Sport and Culture (3)
KNS 633 Advanced Sport Psychology (3)

REVISE SHOWCASES: RECREATION AND SPORT MANAGEMENT MAJOR, MS -THERAPEUTIC RECREATION CONCENTRATION (THESIS AND NON-THESIS OPTIONS)
In the 2010-2011 Graduate Catalog revise showcases as follows:

\section*{Therapeutic Recreation Concentration (Non-Thesis Option)}

RSM 515, RSM 520, RSM 521, RSM 522, RSM 525, RSM 554
Hours Credit
¹RSM 595
18
RSM 508
6
3
Electives
6
Total hours
36
\({ }^{1}\) Must meet national certification requirements.

\section*{Therapeutic Recreation Concentration (Thesis Option)}

RSM 515, RSM 520, RSM 521, RSM 522, RSM 525, RSM 554
Hours Credit
RSM 595
18
RSM 508
6
Thesis
3
Statistics
Total hours
36
\({ }^{1}\) Must meet national certification requirements

\section*{DEPARTMENT OF NUTRITION}

REVISE REQUIREMENTS: NUTRITION MAJOR, MS
In the 2010-2011 Graduate Catalog revise thesis option course requirements as follows:
1) Remove minimum of 33 hours and replace with minimum of 39 hours.
2) Delete first 2 bullets and replace with the following 2 bullets.
- Cellular and molecular nutrition students must take NUTR 412 or NUTR 505, NUTR 511, NUTR 512, NUTR 543 and 545, 3 hours of graduate-level statistics, LFSC 520; two courses selected from CMVM 609, BCMB 440, or ANSC 556; and 6-7 additional hours in NUTR or in a cognate area outside the department.
- Public health nutrition students must take NUTR 505, NUTR 506, NUTR 509, NUTR 511, NUTR 512, NUTR 515, NUTR 616, NUTR 522, NUTR 543 and 545, and PUBH 520, PUBH 530, PUBH 540.

In the 2010-2011 Graduate Catalog revise non-thesis option course requirements as follows:
1) Remove minimum of 50 hours and replace with minimum of 47 hours.
2) First bullet: remove course NUTR 516 and replace with course NUTR 616.
3) Remove second bullet and replace with the following bullet:
- 3 hours in social/behavioral science and education electives are required.

Rationale: Revisions correct the hour requirements for Thesis and Non-Thesis Options, the addition of two electives in the "cellular and molecular nutrition" concentration, and a change in the elective hours in the "public health nutrition" concentration (Non-Thesis Option).

ADD CONCENTRATIONS - NUTRITIONAL SCIENCES MAJOR, PHD
Cellular and Molecular Nutrition concentration
Community Nutrition concentration

In the 2010-2011 Graduate Catalog remove current text and requirements and replace with the following:

\section*{Requirements}

Study in Nutrition Science at the doctoral level leads to the Doctor of Philosophy degree and is completed in one of either two concentrations: cellular and molecular nutrition or community nutrition. Doctoral study in the cellular and molecular nutrition concentration prepares the student for research and/or teaching positions in institutions of higher education, government or industry. Doctoral study in the community nutrition concentration prepares the student for research, teaching, and/or advanced-level practice in institutions of higher education, government, or the public and private sectors.

A minimum of 24 hours of graduate coursework (graded A-F), beyond the Master's degree, is required. Exceptionally well-prepared students with demonstrated superior achievement may enter upon completion of the baccalaureate degree in which case a minimum of 48 hours of graduate coursework (graded A-F) beyond the baccalaureate degree is required. In either case, an original nutrition research project with 24 hours of dissertation work is required.

\section*{Coursework (Minimum)}
- 16 hours in nutrition; these must include NUTR 511, NUTR 512, NUTR 543, NUTR 545, either NUTR 412 (taken for graduate credit) or NUTR 505, and an additional 2 nutrition credits.
- Cellular and Molecular Nutrition concentration: LFSC 520 and two of the following three courses: CMVM 609, BCMB 440 (3), ANSC 556.
- Community Nutrition concentration: NUTR 506, 522, and PUBH 542.
- 6 hours of statistics
- 6 hours in a cognate area
- 9 hours at the 600-level (exclusive of dissertation); at least 4 of these hours must be in nutrition
- Additional graduate credit hours to ensure a minimum of 48 credit hours graded (A-F) beyond the Baccalaureate degree, or a minimum of 24 credit hours graded (A-F) beyond the Master's degree.

Students receiving a Graduate Teaching Assistantship (GTA) and without previous college teaching experience are required to take the fall semester teaching seminar for GTAs.

\section*{REVISE TEXT AND REQUIREMENTS: DUAL MS-MPH PROGRAM - NUTRITION}

In the 2010-2011 Graduate Catalog revise text and requirements as follows: remove current text under the Admission, Requirements and Approved Dual Credit headings and replace with the following:

Admission
Applicants for the MS-MPH program must make separate applications to and be accepted by the Department of Nutrition for the MS, and the Department of Public Health for the MPH, and also the MPH Academic Program Committee. Students who have been accepted by both departments may apply for approval to pursue the dual program any time prior to, or after, matriculation in either or both departments. Such approval will be granted, provided that dual program studies are started prior to entry into the fourth semester of the MS and MPH programs.

\section*{Requirements}

A dual degree candidate must satisfy the requirements for both MS (public health nutrition concentration) and the MPH degrees, as well as the requirements for the dual program. All candidates for the dual degree must successfully complete PUBH 510, 537, and 555; 2 hours (1 hour each) of PUBH 509 and NUTR 509; and a minimum of 60 hours. The Department of Nutrition will award a maximum of 9 hours of credit toward the MS for successful completion of approved graduate-level public health courses offered in the Department of Public Health. The Department of Public Health will award a maximum of 11 hours of credit toward the MPH for successful completion of approved courses offered in the Department of Nutrition.

All courses for which such cross-credit is awarded must be approved by the MPH Academic Program Committee and the student's graduate committee. A single block field experience (or public health internship) is required of all students and the analytical field paper incorporates public health nutrition and the student's public health concentration. Dual-degree students who withdraw from the program before completion of the requirements for both degrees will not receive credit towards the MS or MPH for courses taken in the other program, except as such courses qualify for credit without regard to the dual program.

\section*{Approved Dual Credit}

For thesis students, MS courses to be counted toward the MPH program must include 9 hours of NUTR 515, 1 hour of NUTR 509, a maximum of 3 hours of NUTR 543 and NUTR 545, and 3 hours of NUTR 616. For non-thesis students, MS courses to be counted toward the MPH program must include a maximum of 10 hours of NUTR 515 and NUTR 519, 1 hour of NUTR 509, and 3 hours of NUTR 616. For thesis and non-thesis students MPH courses to be counted toward the MS include PUBH 520, PUBH 530, and PUBH 540.

Rationale: Revision reflects changes to NUTR 516 (now 616) course number and reflects the MPH Academic Program Committee (rather than "Public Health Academic Program Committee). Impact: None.

\section*{DEPARTMENT OF PUBLIC HEALTH}

\section*{ADD TEXT FOR PARTICIPATION IN THE INTERCOLLEGIATE GRADUATE STATISTICS PROGRAM (IGSP)}

In the 2010-2011 Graduate Catalog add heading, text, and requirements for participation in the IGSP.

\section*{Intercollegiate Graduate Statistics Program}

The Intercollegiate Graduate Statistics Program is a formal University of Tennessee, Knoxville academic program housed within the Department of Statistics, College of Business Administration, but made available to students enrolled in a variety of degree programs, including those in Public Health. Students in both the MPH and PhD program in Public Health are eligible to earn a minor in statistics with 9-15 hours of approved coursework.

Additional information is available at http://www.bus.utk.edu/stat/igsp/.

ADD CERTIFICATE - PUBLIC HEALTH LEADERSHIP
In the 2011-2012 Graduate Catalog add heading, text, and requirements for new certificate: Public Health Leadership.

\section*{Public Health Leadership Graduate Certificate}

The University of Tennessee MPH program, in a consortium arrangement with East Tennessee State University and the Tennessee Department of Health, offers a graduate certificate in public health leadership for Health Department staff seeking continuing education and career advancement opportunities in the public health practice arena. Delivered exclusively through electronically mediated courses, the program is focused on leadership principles and skills as applied in public health and community settings.

The 15 -hour certificate is available by completing Public Health 520, 521,528 , and 580 , plus an elective. For those holding the MPH, other identified elective coursework may be used to satisfy certificate requirements, by petition.

SUPPORTING INFORMATION: This request seeks to restore a certificate program which was dropped with the establishment of the Department of Public Health, largely due to the loss of state funding. Impact: All courses are offered by the public health department. Financial Impact: Funding has been made available through a Health Resources and Services Administration grant to East Tennessee State University, which has a sub-agreement with the UT Department of Public Health to offer this certificate program.

\section*{ADD TEXT FOR PARTICIPATION IN GRADUATE CERTIFICATE - HEALTH POLICY}

In the 2011-2012 Graduate Catalog add heading, text, and requirements for new certificate: Health Policy.

\section*{Health Policy Graduate Certificate}

The College of Nursing and Department of Public Health-College of Education, Health, and Human Sciences jointly offer a graduate certificate in health policy to prepare nursing and public health leaders, researchers, and educators to be active in all aspects of policymaking relative to health. The certificate program is designed to build upon and expand concepts from core courses of the curriculum of each discipline's masters' degree programs and the previous experiences and interests of students. Certificate candidates must currently be admitted to a graduate program at the university or hold a terminal degree and be a graduate student in good standing and comply with all other applicable academic policies. Course experiences will foster the examination and application of current policy research and the development of skills related to policy analysis, research, program evaluation, and advocacy.

\section*{Requirements}

A minimum of four courses will be required for the certificate:
- PUBH 520
- PUBH 612 (Same as NURS 612)
- PUBH 614, 3 hours minimum (Same as NURS 614)
- Elective(s)-3 hours minimum; must be selected in consultation with assigned certificate program advisor

Total hours may vary based on the student's academic record, experiences, and objectives. Students must complete a minimum of 12 hours.

Rationale: The certificate allows MPH students interested in health policy to develop knowledge and skills through a set of three courses plus a focused internship experience with the Baker Center. Impact: The certificate is jointly offered by the Department and the College of Nursing. Other academic units may become interested in co-sponsoring the certificate in the future. Financial Impact: No financial impact is anticipated. The certificate does not require additional department funding to instruct new courses.

REVISE REQUIREMENTS AND ADD ADMISSIONS TEXT: EDUCATION MAJOR, PHD - HEALTH BEHAVIOR AND HEALTH EDUCATION CONCENTRATION

In the 2010-11 Graduate Catalog revise footnote \#2 requirements as follows:
\({ }^{2}\) PUBH 550, PUBH 536, PUBH 552, PUBH 636, PUBH 637, PUBH 656, PUBH 609 (4 semesters); STATS 531 and STATS 532 or STATS 537 and STATS 538.

In the 2010-11 Graduate Catalog add Admission heading and text as follows:

\section*{Admission}

Applicants will be evaluated for admission based on the following criteria:
- A GPA of at least 3.2 on a 4.0 scale on master's degree coursework, as evidenced by official transcripts.
- A minimum of 40th percentile on all sections of the Graduate Record Examination (GRE); 4.5 on the analytic portion of GRE and, for international students, a satisfactory score on the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).
- Appropriate academic background and professional and volunteer experience, as evidenced on a curriculum vitae.
- Three letters of reference completed within the past 12 months by faculty members, academic advisors, or employers or professional colleagues. At least two letters must be from persons able to assess academic capacity.
- Ability to express complex concepts and ideas in writing as evidenced in a 600 -word essay.
- Demonstrated skill in a professional, research or academic writing sample.
- Ability to clearly articulate a defined research agenda upon interview.

Admission forms are available at http://graduateadmissions.utk.edu/apply.shtml and http://publichealth.utk.edu/Applications.html

\section*{REVISE TEXT AND REQUIREMENTS AND ADD ADMISSIONS TEXT: PUBLIC HEALTH MAJOR, MPH}

In the 2010-11 Graduate Catalog, add sentence below as a third paragraph in the introductory text, make revisions under the Requirements heading, and revise footnote 2 as indicated below.

The MPH program is accredited by the Council on Education for Public Health (CEPH).

\section*{Requirements}
\({ }^{3}\) Electives 6

Total 42
\({ }^{2}\) Community Health Education: PUBH 536, PUBH 550, PUBH 552.
Health Planning and Administration: PUBH 521, PUBH 525,PUBH 527.
Veterinary Public Health: PUBH 550, Veterinary Medicine VMD 837, Comparative and Experimental Medicine CMVM 611.

In the 2010-11 Graduate Catalog, add admission heading and text as follows:

\section*{Admission}

A departmental application (MPH data form), a statement of the applicant's educational and career goals, Graduate Record Examination scores, and three rating forms are required. Admission to the University of Tennessee Graduate School is also required for admission to the MPH program. Preferential consideration for admission to degree status shall be given to those with a minimum undergraduate grade point average of 3.0 and with at least one year of professional experience in a health-related occupation. As a restricted program, non-degree admission requires program director recommendation. Deadlines for completed applications are 1 February for summer term and 1 April for fall semester. New students are not admitted for spring semester.

Admission forms are available at http://graduateadmissions.utk.edu/apply.shtml and http://publichealth.utk.edu/MPH/apply_index.html

\section*{REVISE DUAL MS-MPH PROGRAM - PUBLIC HEALTH}

In the 2010-11 Graduate Catalog, make the following two revisions as indicated below.
Remove second bullet and replace with the following:
- Plan a career in nutrition and want to acquire the knowledge, skills and perspective of the public health professional.

Remove current text under Admission, Requirements, and Approved Dual Credit headings and replace with the following:

\section*{Admission}

Applicants for the MS-MPH program must make separate applications to and be accepted by the Department of Nutrition for the MS, and the Department of Public Health for the MPH, and also the MPH Academic Program Committee. Students who have been accepted by both departments may apply for approval to pursue the dual program any time prior to, or after, matriculation in either or both departments. Such approval will be granted, provided that dual program studies are started prior to entry into the fourth semester of the MS and MPH programs.

\section*{Requirements}

A dual degree candidate must satisfy the requirements for both MS (public health nutrition concentration) and the MPH degrees, as well as the requirements for the dual program. All candidates for the dual degree must successfully complete PUBH 510, PUBH 537, and PUBH 555; 2 hours (1 hour each) of PUBH 509 and NUTR 509; and a minimum of 60 hours. The Department of Nutrition will award a maximum of 9 hours of credit toward the MS for successful completion of approved graduate-level public health courses offered in the Department of Public Health. The Department of Public Health will award a maximum of 11 hours of credit toward the MPH for successful completion of approved courses offered in the Department of Nutrition.

All courses for which such cross-credit is awarded must be approved by the MPH Academic Program Committee and the student's graduate committee. A single block field experience (or public health internship) is required of all students and the analytical field paper incorporates public health nutrition and the student's public health concentration. Dual-degree students who withdraw from the program before completion of the requirements for both degrees will not receive credit towards the MS or MPH for courses taken in the other program, except as such courses qualify for credit without regard to the dual program.

\section*{Approved Dual Credit}

For thesis students MS courses to be counted toward the MPH program must include 9 hours of NUTR 515, 1 hour of NUTR 509, a maximum of 3 hours of NUTR 543 and NUTR 545, and 3 hours of NUTR 616. For non-thesis students MS courses to be counted toward the MPH program must include a maximum of 10 hours of NUTR 515 and NUTR 519, 1 hour of NUTR 509, and 3 hours of NUTR 616. For thesis and non-thesis students MPH courses to be counted toward the MS include PUBH 520, PUBH 530, and PUBH 540.

\section*{DEPARTMENT OF THEORY AND PRACTICE IN TEACHER EDUCATION}

REVISE ADMISSION TEXT FOR:
EDUCATION MAJOR, PhD - LITERACY STUDIES IN EDUCATION CONCENTRATION
EDUCATION MAJOR, PhD - SPECIAL EDUCATION CONCENTRATION
EDUCATION MAJOR, PhD - TEACHER EDUCATION CONCENTRATION
In the 2010-11 Graduate Catalog remove current admission text and replace with the following for all three above concentrations.

\section*{Admission}

Students must submit to the University of Tennessee, Knoxville, a Graduate Admissions Application to the Office of Graduate Admissions. Students must also submit the Theory and Practice in Teacher Education Departmental Application for Graduate Study. Applicants must submit verbal, quantitative, and analytic writing GRE scores that are equal to or higher than the 50th percentile, based on the norms in effect at the time the test was taken. An applicant with either a verbal or quantitative subtest score that is less than the 50th percentile will be expected to submit a proportionally higher, off-setting second subtest score. For details see: http://www.ets.org/gre/)

Three letters of reference from those who know of the candidate's record and promise are required. An overall GPA of 3.3 in previous graduate study is required for admission to doctoral study and an interview with the faculty may be required. Admissions decisions are made on a holistic basis to discern the candidate's promise for doctoral study and to ascertain the match of the candidate's educational goals with the resources and goals of the department.

\section*{REVISE TEACHER EDUCATION MAJOR, MS (TRACK 2)}

In the 2010-11 Graduate Catalog, revise and add headings and text as indicated below. No changes to the other headings and text listed under Track 2: Requirements.

\section*{Track 2: Initial Licensure Programs}

The Track 2 master's is intended for individuals desiring to earn teacher licensure. Applicants to this program must first be admitted to teacher education. Elementary, middle grades, or secondary English and social sciences education applicants must complete the equivalent of an undergraduate minor in either elementary or secondary education. Applicants interested in secondary math or science education should contact the CEHHS Office of Student Services for further guidance on available options at both the undergraduate and graduate levels. Applications to the middle grades teaching program complete an academic minor in one of the following licensure areas - mathematics, science, social studies, language arts, or foreign language arts. Post-baccalaureate students interested in seeking licensure in art education, special education, or in other fields that require students to earn an undergraduate major would be expected to complete an equivalent undergraduate program of study. Please refer to the catalog for complete details. Individuals are encouraged to contact the college's Student Services Center, A332 Bailey Education Complex, for a diagnostic interview and to develop a tentative course of study and time line.

\section*{Requirements}

Track 2 Common Course Requirements
Master's Track 2 programs are 36 -hour (non-thesis); 42-hour (thesis). Students, regardless of teaching area (e.g., elementary, secondary, etc.), complete a common teacher licensure core of 24 hours during the professional year (see below).

Professional Year Courses ( 24 credits)
TPTE 574 (2-3), 575 (12), TPTE 591 (3-4), specialty studies (6)

\section*{Elementary Teaching}

6 hours chosen from MEDU 530, REED 530, SCED 531, or SSCE 521, 6 hours of educational electives chosen from historical, philosophical, or social foundations; instructional technology; reading education; language arts education; science education; social science education; elementary education; issues in teacher education.

\section*{I. COURSE CHANGES}

\section*{DEPARTMENT OF CHEMICAL AND BIOMOLECULAR ENGINEERING}
(223) (CBE) Chemical and Biomolecular Engineering

DROP
548 Transport Phenomena II (3)
661 Advanced Topics in Process Dynamics and Control (3)
662 Chaos and Engineering Applications (3)

REVISE TITLE
506 Advanced Engineering Mathematics (3)
547 Advanced Transport Phenomena (3)
671 Advanced Topics in Biomolecular Engineering (3)

\section*{REVISE DESCRIPTION}

647 Advanced Topics in Transport Phenomena (3) Application of mass, momentum, and energy evolution equations to complex materials and energy-relevant and biological systems.

\section*{REVISE TO ADD REGISTRATION PERMISSION}

691 Advanced Topics in Chemical Engineering (3)
Registration Permission: Consent of instructor.

DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING
(344) (ENVE) Environmental Engineering

ADD
532 Statistical Methods in Water Resources (3) Advanced hydrologic analysis through the use of statistical methods. Course will focus on applying statistical techniques to support research hypothesis. Topics include: data collection and uncertainty; hypothesis testing; regression (stepwise and partial least squares); non-parametric (kernel density estimator); multivariate (principal components analysis, cluster analysis and singular value decomposition); validation statistics.
Recommended Background: Civil Engineering 494; Statistics 251.
Comment: Students not meeting Recommended Background may seek consent of instructor.

\section*{DEPARTMENT OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE}
(266) (COSC) Computer Science

ADD NEW 400-LEVEL COURSES FOR GRADUATE CREDIT
462 Parallel Programming (3) Principles and practice of parallel computing; design, implementation, and evaluation of parallel programs for shared and distributed memory architectures, and vector processors. Sample topics include models of parallel computers, basic communication operations, performance and scalability of parallel systems, and programming techniques including multi-threading and message passing.
(RE) Prerequisite(s): 361.
482 Theory of Computation (3) Properties of finite automata/regular sets and push-down automata/context-free languages. Countability, diagonalization, and undecidability. Complexity, including the classes P and NP, NPcompleteness, and reduction techniques.
(RE) Prerequisite(s): 312.

DROP
430 Advanced Topics in Hardware Systems (3)
460 Advanced Topics in Software Systems (3)

470 Advanced Topics in Scientific Computation (3)
480 Advanced Topics in Theoretical Computer Science (3)

\section*{REVISE TITLE AND DESCRIPTION}

420 Biologically-Inspired Computation (3) Recent developments in computational methods inspired by nature, such as neural networks, genetic algorithms, evolutionary programming, ant-swarm optimization, artificial immune systems, swarm intelligence, cellular automata, multi-agent systems, cooperation, and competition.

\section*{(319) (ECE) Electrical and Computer Engineering}

ADD
619 Application of Constrained Optimization (3) Linear programming, mixed integer programming; weak and strong duality; convexity; quadratic programming; graph search methods; goal programming; gradient and derivative free methods; population and data-driven approaches; emphasis on formulations.
Recommended Background: Knowledge of linear system theory.
Registration Restriction(s): Minimum student level - graduate.

REVISE (RE) PREREQUISITE
453 Introduction to Computer Networks (3)
(RE) Prerequisite(s): 206 or Computer Science 102.

REVISE (RE) PREREQUISITE(S) (from October 19 email - Banner cross-list cleanup)
663 Advanced Plasma Physics I (3)
(RE) Prerequisite(s): 541, 542.
Formerly: (RE) Prerequisite(s): 541, 542 and 461,462 or 563,564 , or consent of instructor.
Rationale: Departmental graduate committee clarifies correct prerequisites. Impact on other academic units: N/A. Financial impact N/A

\section*{DEPARTMENT OF INDUSTRIAL AND INFORMATION ENGINEERING}
(556) (IE) Industrial Engineering

ADD
603 Design and Analysis of Industrial Experiments (3) Objective is to develop and discuss the fundamental theory, concepts and procedures required in the efficient design and analysis of industrial experiments. Emphasis is placed on meaningful real-world formulations and applications. Specific topics discussed include: review of fundamental principles of the design of experiments and ANOVA methodology, introduction to linear statistical models, specialized designs allowing multiple restrictions on randomization with or without replication, orthogonal arrays, symmetric and mixed full and fractional factorial experiments, response surface methodology, and Taguchi methods.
(DE) Prerequisite(s): 516.
Registration Restriction(s): Minimum student level - graduate.
604 Network-Based Planning and Scheduling Systems (3) Fundamental theory, algorithms, and applications of deterministic network-flow models, and analytical procedures for a special class of stochastic networks (GERT networks). Linear programming and its relationship to network analysis. Algorithms for various kinds of shortest and \(k\)-shortest path models. Labeling procedures for maximal flows in capacitated networks. The Out-Of-Kilter algorithm for costminimization flow models. Primal Simplex network optimization procedures for pure and generalized networks. TravelingSalesman problem algorithms with extensions to multiple salesmen. CPM, PERT and network-flow models in project management. Introduction to multi-commodity networks. Extensive use of network optimization software.
(DE) Prerequisite(s): 522.
Registration Restriction(s): Minimum student level - graduate.

ADD AS SECONDARY CROSS-LISTED COURSE
585 Process System Reliability and Safety (3) Cross-listed: (See Nuclear Engineering 585.)

\section*{REVISE DESCRIPTION}

550 Graduate Seminar (1) Seminar provides an opportunity for Master's and Doctoral students to acquaint themselves with research being conducted by both faculty and graduate students in the Industrial and Information Engineering Department, as well as select campus-wide and off-campus researchers from both academia and industry. Research
work and relevant results are presented in a professional environment that promotes continued interaction among interested parties. Presentations are not restricted to thesis and dissertation work.

\section*{REVISE TITLE, DESCRIPTION AND PREREQUISITE(S)}

601 Operations Research in Service and Environmental Systems (3) Research review of operations research methods in service systems and the environment; including modeling and solution approach. Service system applications to be covered include finance, logistics, healthcare, energy, and security. Environmental issues include forestry and water quality. The primary course method will be to read and critique research articles, and to discuss these findings with the instructor, fellow classmates, and guest lecturers.
(DE) Prerequisite(s): 516, 518, and 522.

REVISE TITLE AND (RE) COREQUISITE
401 Facilities Planning and Material Handling (3)
(RE) Corequisite(s): 405.

REVISE TITLE AND HOURS; ADD (RE) PREREQUISITE
422 Industrial Engineering Design II (2)
(RE) Prerequisite(s): 404; English 102 or 118.

\section*{REVISE DESCRIPTION AND REGISTRATION RESTRICTION; DROP REGISTRATION PERMISSION}

405 Engineering Economic Analysis (3) Introduction to engineering economy and its application in engineering practice. Time-value of money and discounted cash flow techniques. Basic accounting principles. Decisions among engineering alternatives involving design options, equipment selection, break-even points, and similar situations. Cost estimating and consideration of taxes and inflation. Analyzing uncertainty in economic estimates using nonprobabilistic techniques. Introduction to techonomics including transaction cost analysis, concept of techonomic metrics, key trends driving exponential change in the economy and organizations.
Registration Restriction(s): Restricted to majors in the College of Engineering or Biosystems Engineering.

\section*{DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING}
(638) (MSE) Materials Science and Engineering

ADD
527 Welding Metallurgy II (3) The effect of the Welding Method on properties and performance for a full range of metallic alloys (e.g., Carbon and Alloy Steels, Stainless Steels, Aluminum and Ni Base Alloys) together with the effect of the specific joining process characteristics on Composite Materials, Ceramics and Plastics. Lecture and laboratory exercises. (RE) Prerequisite(s): 525.

556 Materials for Energy (3) Underlying physics and operating principles of functional materials used in energy applications such as photovoltaics and photocatalysts, fuel cells, batteries, thermoelectrics, and superconductors.
Recommended Background: 350.
Comment(s): Prior knowledge may satisfy Recommended Background with consent of instructor.

DROP
560 Principles of Ceramic Processing (3)

\section*{610 Structure and Dynamics of Materials (3)}

\section*{632 Advanced Topics in Intermetallic Compounds and Composites (3)}

Rationale: The dropped courses are replaced by new courses in the area of expertise of recently hired faculty. Impact on other units: None. Financial impact: None.

\section*{REVISE DESCRIPTION}

545 Polymer Engineering Processing and Characterization Laboratory (3) Project-based polymer processing laboratory course. Groups of students will work on specific projects that involve polymer processing and characterization. Each semester-long project includes processing of polymer samples, characterization of mechanical and physical properties of the products, variation of processing parameters to determine effect on properties, and generation of oral and written reports.

\section*{DEPARTMENT OF MECHANICAL, AEROSPACE, AND BIOMEDICAL ENGINEERING}
(018) (AE) Aerospace Engineering

DROP FOR GRADUATE CREDIT (RETAINING COURSES IN THE UNDERGRADUATE CATALOG)
422 Aerodynamics (3)
424 Astronautics (4)
425 Propulsion (4)
426 Introduction to Aerospace Design (3)
429 Aerospace System Design (3)
449 Aerospace Engineering Laboratory (3)
494 Selected Topics in Aerospace Engineering (1-4)
495 Selected Topics in Aerospace Engineering (1-4)
SUPPORTING INFORMATION: Courses not appropriate for graduate credit. Impact on other units: None. Financial Impact: None.
(192) (BME) Biomedical Engineering

ADD
580 Computational Cell Biology (3) Introduction to dynamical modeling in molecular and cellular biology. Topics include: models and analysis of neurons and other excitable systems, fast and slow time scales, whole-cell models, intercellular communication, cell cycle controls, molecular motors, and stochastic and nonlinear dynamics in biological systems.
Credit Restriction: Students cannot receive credit for both 480 and 580.
Recommended Background: Multivariate calculus, differential equations, MATLAB or other programming language. Registration Permission: Consent of instructor.

DROP FOR GRADUATE CREDIT (RETAINING COURSES IN THE UNDERGRADUATE CATALOG)
430 Biomedical Engineering Laboratory (3)

\section*{473 Applied Biomechanics (3)}

SUPPORTING INFORMATION: Courses not appropriate for graduate credit. Impact on other units: None. Financial Impact: none.
(335) (ES) Engineering Science

REVISE TO REMOVE PREREQUISITE AND ADD REGISTRATION PERMISSION TO PRIMARY COURSE
552 Computational Fluid-Thermal Systems (3)
Cross-listed: (Same as Aerospace Engineering 572; Biomedical Engineering 562; Mechanical Engineering 562.)
Registration Permission: Consent of instructor.
(650) (ME) Mechanical Engineering

\section*{ADD NEW 400-LEVEL COURSE FOR GRADUATE CREDIT}

476 Fuel Cell Engines (3) Introduction to fundamentals of fuel cells with an emphasis on polymer electrolyte fuel cells. Includes fundamentals of electrochemistry, thermodynamics, fluid mechanics, heat transfer, materials, and manufacturing issues of PEFCs. A brief survey of other fuel cell types is also included.
(RE) Prerequisite(s): 331 and Aerospace Engineering 341.

ADD
576 Advanced Fuel Cell Engines (3) Fundamental science of polymer electrolyte fuel cells. Includes fundamentals of electrochemistry, materials, manufacturing and transport in PEFCS. Laboratory testing of the performance characteristics of PEFCS.
Recommended Background: Undergraduate Thermodynamics and Fluid Mechanics.
Registration Permission: Consent of instructor.
678 Advanced Topics in Fuel Cells and Electrochemical Power Systems (3) Graduate level topics in electrochemical power systems. Includes emphasis on transport issues in polymer electrolyte fuel cells and flow batteries, with some topical coverage of other electrochemically based power systems.
Recommended Background: Course in Fuel Cell Engines.
Registration Restriction(s): Minimum student level - graduate.
Registration Permission: Consent of instructor.

REVISE RECOMMENDED BACKGROUND
521 Thermodynamics I (3)
Recommended Background: Undergraduate thermodynamics.
522 Thermodynamics II (3)
Recommended Background: Undergraduate thermodynamics.

REVISE TITLE
527 Thermal Systems Analysis (3)

DROP FOR GRADUATE CREDIT (RETAINING COURSES IN THE UNDERGRADUATE CATALOG)
449 Mechanical Engineering Laboratory (3)
466 Elements of Machine Design II (3)
475 Thermal Engineering (3)
494 Selected Topics in Mechanical Engineering (1-4)
495 Selected Topics in Mechanical Engineering (1-4)
SUPPORTING INFORMATION: Courses not appropriate for graduate credit. Impact on other units: None. Financial Impact: None.

DEPARTMENT OF NUCLEAR ENGINEERING
(716) (NE) Nuclear Engineering

\section*{ADD NEW 400-LEVEL COURSES FOR GRADUATE CREDIT}

440 Introduction to Nuclear Fuels and Materials (3) Introduction to nuclear fuels and materials in light water reactors, with a focus on the effect of irradiation on properties and performance.
(DE) Prerequisite(s): Mechanical Engineering 331.
(DE) Corequisite(s): Materials Science and Engineering 201 and Mechanical Engineering 321.
441 Corrosion in Nuclear Power Systems (3) Introduction to materials degradation due to aqueous corrosion of the materials in nuclear power plants.
(DE) Prerequisite(s): Mechanical Engineering 331 and Materials Science and Engineering 201.

ADD
540 Fundamentals of Irradiation Effects in Nuclear Materials (3) Detailed analysis of the atomistic mechanisms controlling radiation damage and effects on materials in nuclear environments.

REVISE DESCRIPTION AND HOURS
470 Nuclear Reactor Theory I (3) Fundamentals of reactor physics relative to cross sections kinematics of elastic scattering, reactor kinetics, reactor systems, and nuclear data. Analytical and numerical methods applicable to general criticality problems, eigenvalue searches, perturbation theory, and the multigroup diffusion equations.

\section*{II. PROGRAM CHANGES}

\section*{DEPARTMENT OF CHEMICAL AND BIOMOLECULAR ENGINEERING}

\author{
ADD CONCENTRATION - CHEMICAL ENGINEERING MAJOR - PHD \\ Energy Science and Engineering concentration
}

Insert in the 2011-2012 Graduate Catalog, the catalog text for the new concentration.

\section*{Energy Science and Engineering Concentration}

This concentration is offered in collaboration with the Center for Interdisciplinary Research and Graduate Education (CIRE). The CIRE is a joint effort between the College of Engineering and other University of Tennessee colleges and the Oak Ridge National Laboratory. The students who wish to pursue this concentration will normally have completed 6 credit hours of Core, 3 credit hours of Knowledge Breadth, and 6 credit hours of Knowledge Specialization coursework (minimum 15 hours) specified under the Energy Science and Engineering major, (PhD) program section of this catalog.

\section*{REVISE CERTIFICATE - SUSTAINABILITY SCIENCE INTERDISCIPLINARY GRADUATE CERTIFICATE}

In the 2010-2011 Graduate Catalog, under the Program of Study heading, remove current text and replace with the following:

\section*{Program of Study}

The 12-hour certificate is earned by completing Chemical and Biomolecular Engineering (CBE) 571 or (CBE) 572 and a minimum of 3 hours, but no more than 4 hours, of Chemical and Biomolecular Engineering (CBE) 503 or (CBE) 673. Other course credits may be taken from a pool of courses approved by the STAIR committee. Students must maintain a GPA of 3.00 .

\section*{DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING}

ADD CONCENTRATIONS - CIVIL ENGINEERING MAJOR - PHD
Climate Impacts Engineering concentration Energy Science and Engineering concentration Water Resources Engineering concentration

Insert in the 2011-2012 Graduate Catalog, the following heading and text.

\section*{Energy Science and Engineering Concentration}

This concentration is offered in collaboration with the Center for Interdisciplinary Research and Graduate Education (CIRE). The CIRE is a joint effort between the College of Engineering and other University of Tennessee colleges and the Oak Ridge National Laboratory. The students who wish to pursue this concentration will normally have completed 6 credit hours of Core, 3 credit hours of Knowledge Breadth, and 6 credit hours of Knowledge Specialization coursework (minimum 15 hours) specified under the Energy Science and Engineering major, (PhD) program section of this catalog.

REVISE REQUIREMENTS - CIVIL ENGINEERING - PHD
In the 2010-2011 Graduate Catalog, delete the 2nd and 3rd bullets and replace with the following 3 bullet items:
- A minimum of 18 semester hours of graduate courses in civil engineering or environmental engineering, exclusive of thesis or dissertation credit.
- Additional course work in civil engineering, environmental engineering, or related scientific and engineering fields, amounting to a minimum of 18 semester hours, subject to approval by the student's faculty committee. These related fields will normally include such disciplines as mechanics, chemistry, mathematics, microbiology, physics, and other engineering fields. A minimum of 6 semester hours of mathematics will be required beyond the civil engineering undergraduate requirements.
- At least 6 semester hours of the above coursework must be at the \(600-\) level or above.

\section*{REVISE REQUIREMENTS ENVIRONMENTAL ENGINEERING - MS}

In the 2010-2011 Graduate Catalog, delete the last two sentences in the Requirements paragraph and replace with the following:
...Both options require completion of the following core courses: Environmental Engineering (ENVE) 511, ENVE 512 and additional core courses required depending on the concentration selected.

ADD PARTICIPATION AND TEXT FOR THE INTERDISCIPLINARY GRADUATE MINOR IN COMPUTATIONAL SCIENCE

Insert in the 2010-2011 Graduate Catalog, text for participation in the Interdisciplinary Minor in Computational Sciences.
Interdisciplinary Graduate Minor in Computational Sciences
The Department of Civil and Environmental Engineering participates in the interdisciplinary graduate minor in computational science (IGMCS) program. Any student pursuing a MS or PhD with a major in civil or environmental engineering can receive a minor in computational science by completing the appropriate IGMCS requirements. For additional information, see the description of the Interdisciplinary Graduate Minor in Computational Science listed under Department of Electrical Engineering and Computer Science or visit the IGMCS website at http://igmcs.utk.edu/. The Department of Civil and Environmental Engineering also contributes courses to the IGMCS program curriculum.

\section*{DEPARTMENT OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE}
- ADD CONCENTRATION - COMPUTER ENGINEERING MAJOR - PHD

Energy Science and Engineering concentration

ADD CONCENTRATION - COMPUTER SCIENCE MAJOR - PHD
Energy Science and Engineering concentration

ADD CONCENTRATION - ELECTRICAL ENGINEERING MAJOR - PHD
Energy Science and Engineering concentration

Insert in the 2011-2012 Graduate Catalog, the following heading and text independently under each major.

\section*{Energy Science and Engineering concentration}

This concentration is offered in collaboration with the Center for Interdisciplinary Research and Graduate Education (CIRE). The CIRE is a joint effort between the College of Engineering and other University of Tennessee colleges and the Oak Ridge National Laboratory. The students who wish to pursue this concentration will normally have completed 6 credit hours of Core, 3 credit hours of Knowledge Breadth, and 6 credit hours of Knowledge Specialization coursework (minimum 15 hours) specified under the Energy Science and Engineering major, (PhD) program section of this catalog.

\section*{DEPARTMENT OF INDUSTRIAL AND INFORMATION ENGINEERING}

ADD CONCENTRATION - INDUSTRIAL ENGINEERING MAJOR - PHD
Energy Science and Engineering concentration

Insert in the 2011-2012 Graduate Catalog, the following heading and text.

\section*{Energy Science and Engineering Concentration}

This concentration is offered in collaboration with the Center for Interdisciplinary Research and Graduate Education (CIRE). The CIRE is a joint effort between the College of Engineering and other University of Tennessee colleges and the Oak Ridge National Laboratory. The students who wish to pursue this concentration will normally have completed 6 credit hours of Core, 3 credit hours of Knowledge Breadth, and 6 credit hours of Knowledge Specialization coursework (minimum 15 hours) specified under the Energy Science and Engineering major, (PhD) program section of this catalog.

\section*{DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING}

\author{
ADD CONCENTRATION - MATERIALS SCIENCE AND ENGINEERING MAJOR - MS \\ Biomaterials concentration
}
- ADD CONCENTRATION - MATERIALS SCIENCE AND ENGINEERING MAJOR - PHD

Energy Science and Engineering concentration

Insert in the 2011-2012 Graduate Catalog, the following heading and text.

\section*{Energy Science and Engineering Concentration}

This concentration is offered in collaboration with the Center for Interdisciplinary Research and Graduate Education (CIRE). The CIRE is a joint effort between the College of Engineering and other University of Tennessee colleges and the Oak Ridge National Laboratory. The students who wish to pursue this concentration will normally have completed 6 credit hours of Core, 3 credit hours of Knowledge Breadth, and 6 credit hours of Knowledge Specialization coursework (minimum 15 hours) specified under the Energy Science and Engineering major, (PhD) program section of this catalog.

\section*{REVISE MATERIALS SCIENCE AND ENGINEERING MAJOR - (MS) - THESIS OPTION}

In the 2010-2011 Graduate Catalog, under Thesis Option, replace the 2nd bullet item with the following :
- Additional courses up to 12 hours total in related areas. These courses must include Materials Science and Engineering (MSE) 515 and MSE 516 for the metallurgy concentration; Materials Science and Engineering (MSE) 539 and MSE 540 for the polymers concentration; two graduate specialization courses approved by the student's faculty committee for the materials concentration; two courses from the approved nanomaterials specialization list for the nanomaterials concentration, and two courses from the approved biomaterials concentration list.

\section*{REVISE REQUIREMENTS - MATERIALS SCIENCE AND ENGINEERING MAJOR - (PHD)}

In the 2010-2011 Graduate Catalog, under Requirements heading, replace the 3rd, 4th, 5th bullet items with the following three bullet items information:
- For students proceeding directly to the PhD from the baccalaureate degree, a minimum of 72 graduate hours is required. These hours must include 42 graduate hours, including Materials Science and Engineering (MSE) 511, MSE 512, MSE 513, and MSE 514, at least 6 hours of 600 -level courses in the department, and 30 hours of dissertation. Six hours of MSE 503 may be counted toward degree requirements. At least 24 hours must be courses taught in the department. The materials science and engineering major must include the courses required for the master's program. For students in the nanomaterials concentration at least 12 hours of course work must be from the approved nanomaterials specialization list. For students in the biomaterials concentration at least 12 hours of course work must be from the approved biomaterials specialization list. For students in the Energy Science and Engineering concentration, at least 18 hours of course work must be from the curriculum jointly approved by the center for Interdisciplinary Research and Education (CIRE) and the MSE graduate affairs committee.
- For students having a thesis-based master's degree from UT in materials science and engineering or polymer engineering or a master's degree from another university in materials science and engineering, polymer engineering, or metallurgical engineering, a minimum of 48 graduate hours is required. These hours must include 18 hours of graduate course work with at least 6 hours of 600 -level courses in the department and 30 hours of dissertation. Three hours of MSE 503 may be counted toward degree requirements. For students in the nanomaterials concentration at least 12 hours of course work must be from the approved nanomaterials specialization list. At least 12 hours must be courses in the department. . For students in the Energy Science and Engineering concentration, all 18 hours of course work must be from the curriculum jointly approved by the center for Interdisciplinary Research and Education (CIRE) and the MSE graduate affairs committee.
- For students having a non-thesis master's degree from UT in materials science and engineering or polymer engineering, a minimum of 48 graduate hours is required. These must include 15 hours of graduate course work with at least 6 hours of 600 -level courses in the department and 33 hours of dissertation. For students in the nanomaterials concentration at least 12 hours of course work must be from the approved nanomaterials specialization list. Three hours of MSE 503 may be counted toward degree requirements. At least 12 hours must be courses in the department. For students in the Energy Science and Engineering concentration, 18 hours of course work must be taken from the curriculum jointly approved by the center for Interdisciplinary Research and Education (CIRE) and the MSE graduate affairs committee.

In the 2011-2012 Graduate Catalog, add the Five-Year BS-MS Program to Materials Science and Engineering.

\section*{Five-Year BS-MS Program - Materials Science and Engineering}

The department offers a 5 -year BS-MS program with a BS (major in materials science and engineering) and an MS (major in materials science and engineering or polymer engineering) for qualified students. The primary component of the program is that qualified students may take up to 9 hours of approved graduate courses for their senior undergraduate electives and have them count toward both their bachelor's and master's degrees at the University of Tennessee. This program is designed for students attending the University of Tennessee for their Master of Science degree because other universities may not accept these courses for graduate credit since they were used to satisfy requirements for the Bachelor of Science degree. Significant components of the program are:
- Students must have an overall GPA of 3.4 in required course work. Conditional admission to the 5 -year program may be granted after completion of 65 hours of required course work, while full admission may be granted after the completion of 96 hours of required course work with a minimum GPA of 3.4.
- Admission must be approved by the department and the Graduate School.
- Students must at least be conditionally admitted to the program prior to taking courses that receive credit for both the BS and MS degrees.
- All courses taken for graduate credit must be approved by the director of graduate studies. Students admitted to the program must request permission from the Graduate School to take approved courses for graduate credit. Students admitted to the program must also follow the normal procedure for admission to the Graduate School.
- Students will not be eligible for assistantships until they are enrolled as graduate-level students in the Graduate School.

\section*{DEPARTMENT OF MECHANICAL, AEROSPACE, AND BIOMEDICAL ENGINEERING}
- ADD CONCENTRATION - AEROSPACE ENGINEERING MAJOR - PHD

Energy Science and Engineering concentration
- ADD CONCENTRATION - BIOMEDICAL ENGINEERING MAJOR - PHD

Energy Science and Engineering concentration

ADD CONCENTRATION - ENGINEERING SCIENCE MAJOR - PHD
Energy Science and Engineering concentration

ADD CONCENTRATION - MECHANICAL ENGINEERING MAJOR - PHD
Energy Science and Engineering concentration

Insert in the 2011-2012 Graduate Catalog, the following heading and text independently under each of the above mentioned majors.

\section*{Energy Science and Engineering concentration}

This concentration is offered in collaboration with the Center for Interdisciplinary Research and Graduate Education (CIRE). The CIRE is a joint effort between the College of Engineering and other University of Tennessee colleges and the Oak Ridge National Laboratory. The students who wish to pursue this concentration will normally have completed 6 credit hours of Core, 3 credit hours of Knowledge Breadth, and 6 credit hours of Knowledge Specialization coursework (minimum 15 hours) specified under the Energy Science and Engineering major, (PhD) program section of this catalog.

\section*{REVISE GRADUATE CERTIFICATE - COMPUTATIONAL FLUID DYNAMICS CERTIFICATE}

In the 2010-2011 Graduate Catalog, remove current text and replace with the following:
The College of Engineering offers a graduate certificate in computational fluid dynamics (CFD). The program is designed primarily for the part-time student interested in gaining dexterity in this subject by taking a graduate course sequence through distance education. The pertinent course work is archived at the College of Engineering Computational Fluid Dynamics laboratory website http://cfdlab.utk.edu and is available on demand.

The 12-hour certificate is earned by completing Mechanical Engineering 452 or Engineering Science 551, Engineering Science 552 and Engineering Science 645. The 12-hour sequence is completed via an elective chosen by the participant subject to the approval of the department's Director of Graduate Studies. The suggested elective is the first level graduate course in classical fluid dynamics, which may be credit transferred to UT from the student's local university.

The sole academic prerequisite for the certificate program is a bachelor's degree in engineering or an applied science (physics, mathematics, etc). Applicants must meet the admission requirements of the Graduate School at the University of Tennessee, Knoxville, and be admitted thereto.

\section*{DEPARTMENT OF NUCLEAR ENGINEERING}

\section*{ADD CONCENTRATION - NUCLEAR ENGINEERING MAJOR - PHD Energy Science and Engineering concentration}

Insert in the 2011-2012 Graduate Catalog, the following heading and text.

\section*{Energy Science and Engineering Concentration}

This concentration is offered in collaboration with the Center for Interdisciplinary Research and Graduate Education (CIRE). The CIRE is a joint effort between the College of Engineering and other University of Tennessee colleges and the Oak Ridge National Laboratory. The students who wish to pursue this concentration will normally have completed 6 credit hours of Core, 3 credit hours of Knowledge Breadth, and 6 credit hours of Knowledge Specialization coursework (minimum 15 hours) specified under the Energy Science and Engineering major, (PhD) program section of this catalog.

\section*{ADD FIVE-YEAR BS-MS PROGRAM TO NUCLEAR ENGINEERING}

In the 2010-2011 Graduate Catalog, add Five-Year BS-MS Program to Nuclear Engineering Major, after the showcase:

\section*{Five-Year BS-MS Program - Nuclear Engineering}

In the 2010-2011 Graduate Catalog, add a Five Year BS-MS Program Information for Nuclear Engineering, on the Information page:

The department offers a 5 -year BS-MS program with a BS (major in nuclear engineering) and an MS (major in nuclear engineering) for qualified students. The primary component of the program is that qualified students may take up to 6 hours of approved graduate courses for their senior undergraduate electives and have them count toward both their bachelor's and master's degrees at the University of Tennessee. This program is designed for students attending the University of Tennessee for their Master of Science degree because other universities may not accept these courses for graduate credit since they were used to satisfy requirements for the Bachelor of Science degree. Significant components of the program are:

Students must have an overall GPA of 3.4 in required course work. Conditional admission to the 5 -year program may be granted after completion of 63 hours of required course work, while full admission may be granted after the completion of 93 hours of required course work with a minimum GPA of 3.4.

Admission must be approved by the department and the Graduate School.
Students must at least be conditionally admitted to the program prior to taking courses that receive credit for both the BS and MS degrees. All courses taken for graduate credit must be approved by the director of graduate studies. Students admitted to the program must request permission from the Graduate School to take approved courses for graduate credit. Students admitted to the program must also follow the normal procedure for admission to the Graduate School.

Students will not be eligible for assistantships until they are enrolled as graduate-level students in the Graduate School.

College of Nursing
PART I: COURSE CHANGES
(720) (NURS)

\section*{REVISE TITLE AND DESCRIPTION}

532 Global Health and Security Threats (3) Foundation course providing an in-depth and multi-perspective survey of disasters and other threats to global security and public health. Exploration of the phenomena of mass casualties and global health and security threats in modern society.

533 Global Disaster Nursing/Studies I (5) Advanced planning and leadership in response to human-made and natural disasters, as well as mass casualties related to terrorism or breach of global health and security.

534 Global Disaster Nursing/Studies II (5) Continuation of Global Disaster Nursing/Studies I, providing emphasis on disaster incident management in global perspective, including ethical issues, and the impact of culture, vulnerability, and psychology on the human response to terrorism, disaster, mass casualty events, and large population emergencies.

535 Global Disaster Nursing/Studies III (7) Application of advanced practice knowledge and skills to assess and respond to mass casualty and global health and security disasters of any type, including infectious diseases, toxic exposures, natural or human-made events; to mobilize available resources; support integration of local response into broader national and international response; and effectively use communication within emergency response systems.

536 Global Disaster Nursing/Studies IV (8) Advanced core concepts applied to those affected by specific types of global health and security disasters, including natural or human-made events, infectious diseases, toxic exposures, mass casualty events or large population emergencies, all in global context.

\section*{REVISE DESCRIPTION AND COMMENTS}

592 Nursing Administration: Macroanalysis (2) Exploration, analysis, and application of selected organizational, management, and leadership theories and financial principles to delivery of global disaster nursing services. Structure, functions, organization, behaviors, and adaptive processes of health care organizations.
Comment(s): This course is for students in the Global Disaster Nursing concentration only.

REVISE (RE) PREREQUISITE(S)
608 Quantitative Nursing Research (3)
(RE) Prerequisite(s): 601.

REVISE PRIMARY COURSE TO ADD CROSS-LISTING, DROP REGISTRATION RESTRICTION, AND ADD COMMENT
612 Health and Nursing Planning/Policy (3) Cross-listed: Same as Public Health 612.
Comment(s): Required for all Doctor of Philosophy and Doctor of Nursing Practice - Nursing majors.
614 Nursing Preceptorship in Health Policy (1-3) Cross-listed: Same as Public Health 614.
Comment(s): Required for all Doctor of Philosophy - Nursing majors.

REVISE TO DROP REGISTRATION RESTRICTION AND ADD COMMENT
613 Nursing Leadership in Complex Systems (3)
Comment(s): Required for all Doctor of Philosophy and Doctor of Nursing Practice - Nursing majors.

\section*{PART II: PROGRAM CHANGES}

DROP CONCENTRATION: NURSING MAJOR, MSN
Homeland Security Nursing
- ADD CONCENTRATION: NURSING MAJOR, MSN

Global Disaster Nursing
In the 2010-2011 Graduate Catalog revise name of concentration. Do not remove catalog text for Homeland Security Nursing. Catalog text remains the same. Revise heading and name to reflect the name change of concentration.

In the 2010-2011 Graduate Catalog, second paragraph, second sentence, substitute the new concentration name: Global Disaster Nursing for the dropped concentration name: Homeland Security. Keep the existing two tracks within the concentration: Advanced Practice and Management.

In the 2010-2011 Graduate Catalog, under heading Additional Course Requirements, revise bullets 2 and 3 by substituting Global Disaster Nursing for Homeland Security Nursing.

\section*{- DROP CERTIFICATES:}

Homeland Security Nursing
Homeland Security Studies

\section*{ADD CERTIFICATES:}

Global Disaster Nursing
Global Disaster Studies

REVISE TEXT TO ALL NURSING GRADUATE CERTIFICATES
Adult Health Nursing
Family Nurse Practitioner
Global Disaster Nursing
Global Disaster Studies
Mental Health Nursing
Nurse Anesthesia
Nursing Administration
Nursing Education
In the 2010-2011 Graduate Catalog, second paragraph, third sentence, substitute the new certificate name: global disaster nursing for the dropped certificate name: homeland security.

AND, Global Disaster Studies Graduate Certificate has a second revision in the third paragraph. Change homeland security studies to global disaster studies.

\section*{ADD CERTIFICATE}

Health Policy

\section*{Health Policy Graduate Certificate}

The College of Nursing and Department of Public Health - College of Education, Health, and Human Sciences jointly offer a graduate certificate in health policy to prepare nursing and public health leaders, researchers, and educators to be active in all aspects of policymaking relative to health. The certificate program is designed to build upon and expand concepts from core courses of the curriculum of each discipline's Master's degree programs and the previous experiences and interests of students. Certificate candidates must currently be admitted to a graduate program at the university or hold a terminal degree and be a graduate student in good standing and comply with all other applicable academic policies. Course experiences will foster the examination and application of current policy research and the development of skills related to policy analysis, research, program evaluation, and advocacy.

\section*{Requirements}

A minimum of four courses will be required for the certificate:
- NURS 612, (Same as PUBH 612) - 3 hours
- PUBH 520-3 hours
- NURS 614, (Same as PUBH 614), 3 hours minimum
- Elective(s) - 3 hours minimum; must be selected in consultation with assigned certificate program advisor

Total hours may vary based on the student's academic record, experiences, and objectives. Students must complete a minimum of 12 hours.

SUPPORTING INFORMATION: Rationale: This joint certificate builds on areas of strength in nursing and public health and provides a formal mechanism for students to demonstrate preparation in health policy. Course format and location: Depends on specific course. In the future, other departments may wish to join this interdisciplinary certificate offering. Financial impact: None. No new courses.

\section*{I. COURSE CHANGES}
(905) (SOWK) Social Work

ADD
665 Advanced Quantitative Research Methods (3) Elective course. Advanced research methods course will focus on advanced quantitative methods such as hierarchical linear models in social work research; item response theory in social work research; methods for categorical dependent variables; and generalizable theory.
Repeatability: May be repeated. Maximum 9 hours.
(RE) Prerequisite(s): 605 and 606 with grade of \(B\) or better.
Registration Restriction(s): Minimum student level - graduate.

REVISE TO ADD (RE) PREREQUISITES
602 Research for Social Work Practice II
(RE) Prerequisite(s): 601.

\section*{603 Advanced Research}
(RE) Prerequisite(s): 602.

\section*{606 Analysis of Social Work Data II}
(RE) Prerequisite(s): 605.

\section*{613 Social Work Practice and Its Social Context II}

\section*{(RE) Prerequisite(s): 612.}

\section*{REVISE DESCRIPTION}

538 Culturally Relevant Practice with Diverse Populations (3) In-depth study of evidence-informed and evidencedbased practice models with diverse and at-risk populations. Assessment and interventions focus on individuals, families, groups, and communities. Integrates local to international information about our global, diverse, multicultural society with evidence-based knowledge and skills that are culturally affirming, address oppression, and promote social and economic justice, human dignity, and a human rights perspective.

REVISE HOURS
548 Advanced Policy Practice (3)

\section*{II. PROGRAM CHANGES}

\section*{ADD MAJOR AND DEGREE}
\[
+ \text { DOCTOR OF SOCIAL WORK - SOCIAL WORK MAJOR (PENDING THEC APPROVAL) }
\]

In the 2011-2012 Graduate Catalog insert text and requirements for the Doctor of Social Work (DSW) degree.

\section*{Social Work Major - Doctor of Social Work (DSW)*}
*This program is pending approval from the Tennessee Higher Education Commission. Students will be admitted to the major and degree should the program be approved.

The College of Social Work offers the Doctor of Social Work degree (DSW). The College of Social Work DSW program is designed for MSSW/MSW graduates with significant clinical social work practice experience interested in earning an advanced clinical degree in social work. At the completion of the DSW program, graduates will be able to:
- Integrate social work social and behavioral science with other disciplines as the basis for the highest level of evidence-based social work practice.
- Demonstrate professionalism, advocacy, ethical principles, and scientific integrity in advanced social work practice.
- Provide collaborative leadership in the development of social work evidence-based practice models and standards of care for diverse populations.
- Generate client, system and outcomes research and analyze other evidence to guide improvements in practice.
- Utilize information systems/technology to support and improve social work care and social and health care systems.

\section*{Admission Requirements}
- Meet requirements for admission to the Graduate School.
- Hold a Master's degree in social work from a program accredited by the Council on Social Work Education. Applicants from international programs will be reviewed on an individual basis.
- Have two years of post-MSSW/MSW clinical practice experience
- Have a minimum cumulative grade-point average of 3.0 on a 4.0 scale for previous graduate work
- Have achieved a competitive score on the verbal and quantitative portions of the Graduate Record Examination.
- Have TOEFL scores of at least 550 on the paper test or 80 on the internet-based test if native language is not English.
- Demonstrable information technology skills.

\section*{Special Requirements and Policies}
- Each student must hold personal professional liability insurance.
- Students must adhere to ethical and professional standards.
- Students will attend an annual week of on campus residency each summer devoted to intensive study and skills practice.

\section*{Requirements}

The following courses are required for all students. Courses are listed below in the expected sequence of the DSW curriculum. Students must complete the courses listed above DSW Capstone I, before writing and defending the Capstone I paper. Students must complete all courses listed below the DSW Capstone I course before taking DSW Capstone II.
\begin{tabular}{lr} 
Neuroscience for Clinical Practice & Hours \\
Epistemology and Clinical Evidence-based Practice Methods & 3 \\
Cognitive Behavioral Therapy I & 3 \\
Interpersonal Psychotherapy & 3 \\
Psychopathology and Psychopharmacology & 3 \\
Cognitive Behavioral Therapy II & 3 \\
Advanced EBP for Addictions and Dual Diagnosis Treatment & 3 \\
Cinical Research and Applied Statistics & 3 \\
Clinical Management & 3 \\
Trauma Focused Interventions & 3 \\
Individual/Group Practice with Diverse Populations in Complex Systems & 3 \\
DSW Capstone I & 3 \\
Clinical Leadership & 3 \\
Translationnal Research & 3 \\
Emergent Intervention Methods for Complex Populations & 3 \\
DSW Capstone II & 3 \\
& Total 48
\end{tabular}

The residence for the Doctor of Social Work is defined as four consecutive semesters with a minimum of 6-credit hours of enrollment per semester. Students will be admitted to candidacy after completing the period of residence and successfully
writing and defending the Capstone I publishable paper. This tangible and deliverable academic product is derived from the student's practice experience and immersion in the research literature. See Capstone I course description. The Capstone I paper is the comprehensive exam for the DSW program. It is reviewed and evaluated by the student's academic committee. The academic committee for Capstone I and Capstone II projects is composed of a minimum of three doctorally-prepared faculty. One committee member may be a doctorally-prepared faculty member from another academic unit, or external to the university who holds special expertise relative to the Capstone I and II projects. The oral defense for both Capstone I and Capstone II may be conducted either via online, interactive video or during face-to-face meeting of the academic committee and the student. In case of failure of either examination, the student may request a retake. The result of the second examination is final.

Advanced evidence-based practice in clinical social work is based on a dynamic and rapidly evolving theoretical, empirical and clinical practice literature. As such, DSW comprehensive exam must be taken within three years, and all requirements must be completed within five years, from the time of a student's first enrollment in the DSW program.

\section*{Supporting Information:}

Rationale: The post-MSW/MSSW Doctorate of Social Work (DSW) in clinical practice program is for individuals interested in advancing their clinical knowledge and becoming leaders in clinical practice. Advanced practitioners in social work are research-literate, reflective and professional leaders in their field. They are able to draw on a range of empirical, theoretical and professional sources of knowledge and take the lead on social work policy and practice innovations. The DSW differs from other social work doctorates in that it is a professional practice degree, designed to prepare students for advanced clinical practice and advanced practice leadership. Geared toward working professionals, the DSW is an intensive accelerated program that enables students to satisfy all degree requirements in three years, without career disruption. The curriculum focuses on advanced clinical practice, clinical research and advanced practice leadership.

The DSW in clinical practice program is consistent with the goals and priorities of The University of Tennessee-Knoxville. Specifically, it will prepare the next generation of skilled and ethical professionals, contribute to improving the quality of life of the citizens of Tennessee, conduct research to improve human well-being, and partner with urban and rural communities to improve their livability. Thus, the proposed DSW program contributes significantly to the mission of UTKnoxville. State governmental agencies across Tennessee as well as a wide range of social service, health care, mental health, and substance abuse treatment providers need advanced social work practitioners prepared at the doctoral level to not only render excellent direct care but also to provide critical organizational and state leadership in moving social care to an acceptable level of best practices.

The College of Social Work conducted two separate surveys to ascertain need and demand for the program. Eduventures conducted the first survey in June 2009. The intention of the survey was to better understand the demand for a practice-oriented doctoral degree in social work offered through a primarily distance learning format. Of particular interest were industry experts' and employers' perceptions of the proposed program. The report reviews insights from social work experts in the Southeast region of the U.S., relevant national and regional economic data, and national degree conferral trends to determine consumer demand.

The findings from Eduventures survey indicated the following with respect to student demand:
Positive perceptions exist for the proposed distance learning delivery format.
There is a need for the proposed distance learning practice-oriented doctoral degree.
The potential demand for the practice-oriented doctoral degree will be greater in the future as not only the profession but also the general audience drive the doctoral degree as the accepted "professional degree in social work".

There appears to be limited, if any, competition for practice-oriented doctoral level training in social work. As such, this presents a unique market opportunity for the UT-Knoxville College of Social Work.

The second survey, conducted with the assistance of the UT Office of Distance Education and Continuing Education and the Social Work Office of Research and Public Service, solicited input from Licensed Master Social workers (LMSW) and Licensed Clinical Social Workers (LCSW) in Tennessee to determine demand for the program and program content desired.

A postcard was mailed to 1,596 practitioners with a LMSW licensure and 1,786 practitioners holding the LCSW licensure residing in the state of Tennessee. The postcard provided a brief statement of purpose for the study and the Internet link for completing the survey. Two hundred sixty-nine (269) individuals completed the survey.

A majority of master's level social workers who responded to the survey indicated that they were either very or extremely interested in pursuing a practice doctorate in social work.

Those who worked in the social work field between 6 and 9 years reported the highest level of interest in pursuing the practice doctorate.

The respondents overwhelmingly preferred the use of online courses for delivery of the practice doctorate.

REVISE DEGREE REQUIREMENTS, SOCIAL WORK MAJOR, MSSW
In the 2010-11 Graduate Catalog revise first bullet (adding text to include hours required for Advanced Standing) to:
- The program requires successful completion of a minimum total of 60 semester hours. Advanced Standing requires successful completion of 37 semester hours.

REVISE TO REMOVE ADVANCED CONTENT HEADING AND TEXT, SOCIAL WORK MAJOR, MSSW
In the 2010-11 Graduate Catalog delete Advanced Content heading and text (paragraph).

REVISE REQUIREMENTS, SOCIAL WORK MAJOR, PHD
In the 2011-2012 Graduate Catalog, revise 4th paragraph as follows:
Delete as a required course STAT 531 and STAT 532. No other changes to the paragraph.

\section*{REVISE VETERINARY SOCIAL WORK GRADUATE CERTIFICATE}

In the 2011-2012 Graduate Catalog, under Program of Study heading, remove \(1^{\text {st }}\) paragraph and replace with the following:

The certificate program consists of 21 hours of course work: 3 hours of veterinary social work courses (SW 567), 3 elective hours (SW 557), 3 selective hours with assignment in the course on a veterinary social work topic (SW 570, SW 571 or SW 572), and 12 field placement credits.

\title{
ATTACHMENT 3 \\ Graduate Deans' Group \\ Thursday, January 13, 2011, 2:00-3:30 p.m. \\ Graduate School Conference Room
}

\section*{Attending:}

Mary Albrecht, Chris Boake, Ernest Brothers, Joy DeSensi (Chair), David Dupper for Cynthia Rocha, Michael Essington, Tom George, Mary Gunther, Yvonne Kilpatrick, Tom Ladd, Jan Lee, Catherine Luther, Michael McEntee, Stefanie Ohnesorg, Masood Parang, Carol Parker, Kay Reed.

The Graduate Deans' Group meeting was called to order by Joy DeSensi, on Thursday, January 13, 2011, at 2:00 p.m. in the Graduate School Conference Room.
1. The minutes of the Graduate Deans' Group meeting from October 14, 2010 were approved.
2. Top 25 Planning and Implementing Taskforces Update

Mary Albrecht, Vice Chancellor and Project Director, shared the following information:
- The Top 25 Strategic Plan is expected to take 10 years to complete.
- The Advisory Group consisting of the original Top 25 Task Force members with a few changes in membership will be overseeing the various task force committees.
- The task force committees and chairs are:
- Undergraduate - Sally McMillan
- Research - Wes Hines
- Faculty - Sarah Gardial
- Graduate Education - Carolyn Hodges
- Staff - Mike Herbstritt
- Chairs of the committees meet regularly to share information.
- Graduate Plan will be presented to the Board of Trustees in February.
- The complete Top 25 Strategic Plan will be presented to the Board of Trustees in June.
3. Distance Education Policy

The distance education policy appears in the Graduate Catalog. Kay Reed, Assistant Dean of the Graduate School, stated that if a existing program offers distance education, it needs to described in the Graduate Catalog. If it is a new major or degree, it will need to go to THEC for approval.
4. College Diversity Recruitment Initiatives

The following colleges shared their diversity recruitment initiatives:

\section*{Nursing}
- Appointed Mary Gunther to serve as Director of Graduate Studies
- Linked with historical black colleges and universities

Business Administration
- Hired Tyvi Small as a coordinator of diversity. Established a chapter of Black Accountants which links students to other parts of the university or other colleges.
- PhD project recruits doctoral level instructors from African-American, Native American or Hispanic backgrounds. They go to businesses and invite high level business men and women to attend the conference in hopes in recruiting them to college teaching. Research is a major part of the plan. It has been very successful in the workplace. The college must provide assistantships.

\section*{Law}
- Students and faculty members attend job fairs, conferences, etc.
- Law firms assist in recruiting students
- Current students are sent to recruit.
- Retention numbers are an important tool in recruitment.

Education, Health and Human Sciences
- Since 1985 the college has had a recruiter of minorities and retention, and it has been expanded to include all under-represented groups.
- Churches, schools, etc. are great resources for recruiting students.
- Donors help fund recruitment and student expenses.

Communications
- Linked with historically black colleges

Arts and Sciences
- Hanes-Morris Fund was established for a seminar series used to recruit students while they are on campus for the seminars.
- Mayhew Funds are used for international travel for graduate students.

Social Work
- Public Social Services are used to recruit students.
- Engineering
- Hired a recruiter
- Part of the faculty's role is linking with Ph.D. students.
- GRE Score list is used as it is a good way to select engineering students.
- Students are brought to campus for a visitation.
- Supplement student stipends.

Office of Training and Mentorship
Dr. Ernest Brothers, Assistant Dean of the Graduate School, noted the following:
- Collaborations are being established with other universities and colleges.
- Everyone is a recruiter, staff, faculty, and students.
- Communication between colleges and the Office of Training and Mentorship is being established.
- Customizing seminars to college's requests.
- GEM
- ORNL

The next Graduate Deans' Group meeting will be on Thursday, February 10, 2011, 2:00 3:30 in the Graduate School Conference Room.

With no further business, the meeting was adjourned at \(3: 25\) p.m.
Respectfully Submitted,
Gay Henegar
Secretary to Graduate Deans' Group

ATTACHMENT 4
GRADUATE COUNCIL MEMBERS ROTATING OFF GC 2010-2011
\begin{tabular}{|l|c|c|c|}
\hline \multicolumn{1}{|c|}{ College } & Members & \begin{tabular}{c} 
Appointment \\
Ends
\end{tabular} & Proxy \\
\hline Arts \& Sciences & Dr. Daniel Feller & July 31, 2011 & Dr. Alvaro Ayo \\
\hline & Dr. Robert Hatcher & July 31, 2011 & Dr. Brandon Prins \\
\hline & & July 31, 2011 & Dr. Michael Logan \\
\hline & & & \\
\hline Business Administration & Dr. John Wachowicz & July 31, 2011 & Dr. Lloyd Rinehart \\
\hline & & & \\
\hline Communication \& Information & Dr. Ed Caudill & July 31, 2011 & Dr. Roxanne Hovland \\
\hline & & & \\
\hline Education, Health, \& Human Sciences & Dr. Ralph Brockett & July 31, 2011 & \\
\hline & Dr. Barbara Thayer-Bacon & July 31, 2011 & Dnfilled \\
\hline
\end{tabular}```

