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Undergraduate Council Minutes of Meeting January 17, 2002

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**THE UNIVERSITY OF TENNESSEE
UNDERGRADUATE COUNCIL**

**MINUTES OF MEETING
January 17, 2002**

Members present:

Mary Albrecht, Angela Batey, Richard Bayer, Chris Cox, Don Cox, David Dobbs, Tom George, Fred Gilliam, Eric Haley, Betsy Haughton, Heather Hirschfeld, Suzanne Kurth, Robert Leiter, Mark Moon, Johnnie Mozingo, Mike Mullen, Fred Pierce, Paul Pinckney, Max Robinson, Harold Roth, Richard Saudargas, Charles Schreck, Carol Seavor, Euridice Silva, Jean Skinner, Delores Smith, Frank Spicuzza, Terry Stratta, and Linda Tober.

Members absent:

Elizabeth Clement, Katie Gregory, Andrew James, Faye Julian, Miriam Summers, and Michael Ware.

Proxy:

Rita Smith (Barbara Dewey).

Tober called the meeting to order at 1:30 p.m.

I. Curricular Changes

- A. Albrecht distributed a revised agenda that reflects the College's withdrawal of a proposal to change a concentration to a major. Mullen presented the material.

The Departments of Agricultural and Biosystems Engineering, Ornamental Horticulture and Landscape Design, and Plant and Soil Sciences were reorganized into two departments: Biosystems Engineering and Environmental Science (BEES), and Plant Sciences and Landscape Systems (PSLS).

After some discussion of the lists of courses to be used to meet general education requirements, the College agreed to supply them so they can be published.

Saudargas requested that an upper division Psychology course be removed from the list and that affected colleges be consulted when such lists are constructed. With minor revisions, Council approved the material.

B. College Architecture and Design

Robinson presented the material. After some discussion of enforcement procedures for a proposed requirement of an off-campus academic program, Robinson agreed to return the proposal to the college for further clarification. Council approved the remaining items.

C. College of Arts and Sciences

Cox presented the material. A summary of the proposals appears on pp. 13340-13341. Council approved changes with minor revisions.

D. College of Business Administration

Changes were presented by Pierce. Changes include a name change of a major from General Business to Business Studies. Council approved.

- E. College of Communications
Haley and Taylor, head of the Department of Advertising, presented the changes in Advertising's progression requirements. Council approved.

- F. College of Education
George presented the material which includes revision of the Exercise Science and Sport Management programs. Council approved.

- G. College of Engineering
Gilliam presented the material. A summary of the revisions appears on pp. 13376-13377; and includes major changes in Electrical and Computer Engineering. Lists of approved electives for each major will be provided. Council approved.

- H. College of Human Ecology
Skinner presented the material. After discussion of proposed revision to Early Childhood Administration, Early Childhood Development, Dual Licensure, and Early Childhood Education, Saudargas moved that the material be returned to the College for further consideration. Kurth seconded and Council concurred. The remaining proposals were approved.

- I. College of Nursing
Mozingo presented revisions to two courses which Council approved.

- J. Tober presented the list of courses to be dropped that have not been offered in four or more years. Council approved.

- II. Academic Review
Tober presented the proposal that students dismissed for academic reasons be suspended one calendar year instead of two terms. Council approved.

There being no other business, the Council adjourned at 4:00 p.m.

Material for Faculty Senate approval appears on pp. 13283-13415.

Respectfully submitted,

Linda M. Tober
Secretary to the Undergraduate Council

THE UNIVERSITY OF TENNESSEE
COLLEGE OF AGRICULTURAL SCIENCES AND NATURAL RESOURCES



December 14, 2001

TO: Linda Tober

FROM: Mary Lewnes Albrecht

A handwritten signature in black ink, appearing to read 'Mary'.

RE: Proposed Changes to Undergraduate Courses and Curricula in the College of
Agricultural Sciences and Natural Resources

cc: C.A. Speer
CASNR Undergraduate Council (via e-mail)
Department Heads (via e-mail)

Office of the Dean
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Under cover of this letter are the proposed changes to undergraduate courses and curricula in the College of Agricultural Sciences and Natural Resources.

The bulk of the materials present extensive changes resulting from the reorganization of three departments into two departments. Effective July 1, 2001, the Departments of Agricultural and Biosystems Engineering, Ornamental Horticulture and Landscape Design, and Plant and Soil Sciences were reorganized into the Department of Biosystems Engineering and Environmental Science and the Department of Plant Sciences and Landscape Systems. This reorganization was approved by the UT Board of Trustees at their June, 2001 meeting.

Changes to the Biosystems Engineering major were planned prior to the reorganization of the departments and recognize changes in the discipline.

Other changes reflect revisions in courses and curricula to reduce the number of credit hours to earn a degree from 132 to 124. This resulted in course and curriculum changes in Agricultural Economics and Business and Animal Science; curriculum changes only for Food Science and Technology.

Also presented is the revised elective lists for the Forestry and the Wildlife and Fisheries Science majors.

Should you have any questions, please do not hesitate to contact me.

College of Agricultural Sciences and Natural Resources Course Changes

AGRICULTURAL ECONOMICS

ADD

- 310 The Agricultural Employment Process (1)
Career planning, job markets in the agricultural industry, and techniques to obtain employment including recruitment/placement services, résumé construction, personal interviewing, and job offer evaluation/analysis. F
- 356 Marketing Team Participation (1-2)
Participation in the development of a total marketing plan for a product sold to or by farmers. Includes product identification, market research, and development of an action plan including an extensive promotional plan, financial analysis, and evaluation. Requires preparation of final plan for presentation in written, oral and visual formats. Plan presented in national competition during the National AgriMarketing Conference. May be repeated up to a maximum of 6 hours. Prereq: Consent of instructor. F, Sp

REVISE COURSE DESCRIPTION

FROM:

- 410 Seminar in Agricultural Economics and Business (1). Primarily for Agricultural Economics and Business majors in their senior year. Analysis of contemporary problems in the field. Discussion of career objectives, opportunities, and placement processes. Assignments for written and oral presentation.

TO:

- 410 Seminar in Agricultural Economics and Business (1). Restricted to Agricultural Economics and Business majors in their senior year. Practice of critical thinking, ethical behavior, teamwork, and conflict resolution within the content of agribusiness decision making. Analysis of contemporary issues in the field of agricultural economics.

REVISE PREREQUISITE

- 320 Agricultural Microeconomics (3)
Prerequisites: Economics 201 and Agricultural Economics 212 (formerly Economics 201).
- 342 Farm Business Management I (3)
Prerequisites: Economics 201 and Agricultural Economics 212 (formerly Economics 201 and Junior standing).
- 350 The Agricultural Marketing System (3)
Prerequisites: Economics 201 and Agricultural Economics 212 (formerly Economics 201).
- 355 Agribusiness Marketing and Professional Selling (3)
Prerequisites: Economics 201 and Agricultural Economics 212 (formerly Economics 201).
- 412 Agricultural Finance (3)
Prerequisites: Economics 201 and Agricultural Economics 212 (formerly Economics 201).

EFFECTIVE DATE FOR ALL ADDITIONS AND REVISIONS: Fall 2002

AGRICULTURE AND NATURAL RESOURCES

ADD:

100 Orientation to Studies in Agriculture and Natural Resources (1) Orientation to academic advising and procedures in, and information about the College will be emphasized. Various invited guests will review University resources available to help students succeed at their studies. Student-to-student and advisor-to-student sessions are included to discuss the CASNR experience. Enrollment is restricted to freshmen and transfer sophomores. Grading is S/NC. F.

EFFECTIVE DATE: Fall, 2002

ANIMAL SCIENCE

ADD:

395 Careers Seminar (1)
Preparing students for career opportunities in animal agriculture including both industry and academic advancement. Topics will include resume preparation, interview skills, internship opportunities, and web-based employment search guides. Prereq: Junior standing. F, Sp.

DROP:

101 Orientation to Animal Science (1)

REVISE COURSE NAME, NUMBER AND DESCRIPTION:

FROM:

260 The Animal Industry and Market Evaluation (3)
Structure and production principles of food animal and horse industries. Criteria for food animal and horse evaluation. Market classes and grades of cattle, poultry and poultry products, lamb and wool, and swine. Subjective and objective techniques for evaluation of beef cattle, dairy cattle, poultry, sheep and swine. Introduction to and utilization of species specific performance programs. 3 labs. F, Sp.

TO:

160 Introduction to Animal Science (3)
Preparation of academic plans and career discussion. Introduction to structure and production principles of the food animal and horse industries. Overview of companion and alternative livestock. Market classes and grades of cattle, poultry and poultry products, lamb and wool, and swine. 3 labs. F, Sp

REVISE COURSE NAME:

FROM:

280 Farm Animal Management Practices (3)
Integration of herd/livestock management practices into cattle, horse, poultry, sheep, and swine enterprises. Application of animal behavior knowledge, handling of animals, including facilities and restraint. Includes age and sex determination, pre- and post-natal care, identification, dehorning, castrating, docking, implanting, dubbing, food care, fitting and grooming, record keeping, reproductive and milking management. 2 3-hr labs. F, Sp.

TO:

280 Biotechnology and Management Practices in Animal Production (3)
Exposure to current animal agriculture management practices and biotechnology techniques as they affect beef, dairy, horse, poultry, sheep and swine industries. Includes animal behavior, restraint and welfare, computer applications, nutrients and nutrient utilization, waste management, food safety, animal reproduction, health and well being, and emerging technologies and opportunities in animal agriculture. 2 3-hour labs.

REVISE COURSE NAME, CREDIT HOURS, DESCRIPTION, AND PREREQUISITES:

FROM:

330 Animal Nutrition, Feeds, and Ration Formulation (4)
Properties, functions, utilization, and deficiency symptoms of essential nutrients; properties and functions of feedstuffs and principles of ration formulation. Prereq: Chemistry 110 or Chemistry 130 and Math 121. 2 hours and 2 labs. F.

TO:

330 Comparative Animal Nutrition (3)
Nomenclature, structures, functions, utilization, and deficiency symptoms of essential nutrients in carnivores, omnivores and herbivores. Prereq: Animal Science 220, Chemistry 110 or Chemistry 130.

REVISE COURSE NAME AND DESCRIPTION

FROM:

381 Animal Production Systems (3)
Fundamentals of production and management systems in beef, dairy, pork, and poultry programs. Application of principles of nutrition, breeding, physiology, and marketing into enterprise systems. Decision making management practices and information resources, enterprise evaluation, and comparison of production systems. 2 hours and 1 lab. No credit for majors. F.

TO:

381 Animal Nutrition and Production Systems (3)
Fundamentals of production and management systems with an emphasis on nutrition in beef, dairy, pork, and poultry programs. Application of principles of nutrition, breeding, physiology, and marketing into enterprise systems. Decision making management practices and information resources, enterprise evaluation, and comparison of production systems. 2 hours and 1 lab. No credit for majors. F.

REVISE COURSE CREDIT HOURS:

FROM:

430 Advanced Ration Formulation (2)
Advanced ration formulation for beef and dairy cattle, sheep, horses, swine poultry, laboratory, zoo and companion animals. Mathematical and computer solutions and applications to formulating complex rations with constraints. Prereq: Animal Science 330 and introductory computer course. 2 labs. Sp.

TO:

430 Nutrient Evaluation and Ration Formulation (3)
Ration nutrient analysis and formulation for beef and dairy cattle, sheep, horses, swine poultry, laboratory, zoo and companion animals. Mathematical and computer solutions and applications to formulating complex rations with constraints. Prereq: Animal Science 330 and introductory computer course. 2 hours and 1 lab. Sp.

REVISE NAME AND DESCRIPTION:

FROM:

495 Seminar (1)
Review of the literature and oral and written presentation on special topics an current research in Animal Science field. Prereq: Senior standing. One 2 hour lab. F, Sp.

TO:

495 Ethics in Animal Agriculture (1)
Discussion and presentations on issues related to ethics in animal research and industry. Prereq: Senior standing. F, Sp.

EFFECTIVE DATE for all animal science courses: FALL, 2002

BIOSYSTEMS ENGINEERING AND ENVIRONMENTAL SCIENCE

BIOSYSTEMS ENGINEERING

DROP:

- 103 Introductory Design and Fabrication (1)
- 243 Material and Energy Flows in Biological Systems (3)
- 303 Transport Processes in Biological Systems (3)
- 311 Processing Food and Biological Materials (3)
- 315 Soil and Water Conservation (3)
- 331 Power Units and Machinery (3)
- 403 Machine and Component Design (3)
- 423 Irrigation and Waste Management System Design (3)
- 430 Mobile Hydraulic Power System Design (3)
- 433 Bioprocess System Design and Analysis (3)

REVISE NUMBER, DESCRIPTION AND PREREQUISITE:

104 Design Apprenticeship (1) Exposure to design in biosystems engineering, through apprenticeship with senior design teams in Biosystems Engineering 402. Apprentices will maintain a journal describing their activities in assisting the senior design engineers, and will make an oral presentation summarizing the design project with which they assisted. Grading will be based on journal submissions, contributions to the design team, and the final presentation. Prereq: Engineering Fundamentals 101. 2 hour lab. Sp (Formerly: 103)

ADD:

- 221 Mass and Energy in Biosystems (3) Introduction to thermodynamic concepts for biological systems (energy, mass and energy balances, processes and cycles); psychrometrics and psychrometric processes; biological systems and the biosphere (bioenergetics, hydrologic cycle, global energy cycle). Prereq: Chemistry 120, Engineering Fundamentals 102. 2 hours and 1 lab. F
- 321 Biothermodynamics, Heat and Mass Transfer (3) Application of thermodynamics to biological systems; heat transfer, with emphasis upon conduction and convection applications; introduction to diffusion mass transfer. Coreq: Mathematics 241. Prereq: 221, Nuclear Engineering 203. 2 hours and 1 lab. Sp
- 411 Mechanical Systems Engineering (3) Fundamentals of power delivery systems and simple mechanisms; selection and design of mechanical, hydraulic, and tractive power transmission systems. Emphasis on off-road vehicles and bioprocessing systems. Prereq. 431, Engineering Science 231, Engineering Science 321. 2 hours and 1 lab. Sp
- 421 Natural Resource Engineering (3) Introduction to hydrologic cycle: movement of water and interaction with environment through such processes as erosion and contaminant transport. Impacts through estimation and measurement, and controlling impacts through engineering design. Specific designs: waterways, erosion and sediment control structures, waste management systems, irrigation systems, and hydrologic monitoring systems. Prereq: 321, Environmental and Soil Sciences 210, Civil Engineering 390 or Engineering Science 341. 2 hours and 1 lab. F

431 Bioprocessing Engineering (3) Application of basic engineering principles to processing and handling of biological materials: physical, chemical, biological properties; materials handling; material conversion operations; drying; heat processing; and bioprocessing. Prereq: 321 or equivalent. 2 hours and 1 lab. F

441 Life Systems Engineering (3) Design of controlled environments to optimize conditions for organism growth and development: growth equations and population dynamics; plant growth systems; microbial growth systems; animal growth systems; biotechnological applications. Prereq: 321, Mathematics 231. 2 hours and 1 lab. Sp

444 Practicum (3) Applications of engineering theory and design in selecting, sizing, and fabricating engineering materials; and in developing processes and systems typically used in biosystems engineering. Must be taken in same semester as 401. 1 hour and 2 labs. F

BIOSYSTEMS ENGINEERING TECHNOLOGY

ADD:

326 GIS/GPS Applications in Agriculture and Environmental Science (3) Introduction to the application of Geographic Information Systems (GIS) and Global Positioning Systems (GPS) in agriculture and in environmental science. Topics covered will include GIS software and concepts, GPS receivers, data acquisition, and spatial analysis of data to solve problems. Case studies in agricultural demographics, precision agriculture, pasture management, water quality, watershed management, and waste pollution will be used to provide hands-on experience with these emerging technologies. Prereq. Agriculture and Natural Resources 290 or equivalent. S

414 CAD Applications to Biosystems Engineering Technology (3) Computer Aided Drafting (CAD) applications in agriculture and environmental science. Essentials of CAD software to create drawings of components, systems, flow charts, and process diagrams. Applications in mechanical, structural, and biosystems. 2D applications with limited exposure to 3D applications. Computer intensive course. Hands-on experience. Prereq. Computer proficiency and admission to graduate program. (Students cannot receive credit for both 414 and 514.) Two 2-hour labs. F

474 Environmental Instrumentation and Monitoring (3) Equipment and techniques commonly used to measure all aspects of hydrologic cycle: precipitation, runoff, streamflow, subsurface water movement. Sampling of all flows for contaminants. Design of monitoring systems. Analysis of data. Prereq: Environmental and Soil Sciences 324, Statistics 201, Math 152, or consent of instructor. (Students cannot receive credit for both 474 and 574.) 2 hours and 1 lab. Sp.

ENVIRONMENTAL AND SOIL SCIENCES (ESS)

ADD NEW COURSE PREFIX:

ESS: ENVIRONMENTAL AND SOIL SCIENCES

NOTE: Course proposals for the new Environmental and Soil Sciences course panel are the soil and climate courses from the old Plant and Soil Sciences (792) panel. This request is made due to departmental reorganization (see more information below under Curricula Changes)

REVISE CREDIT HOURS AND CREDIT HOURS DISTRIBUTION:

FROM: Plant and Soil Sciences 210 Introduction to Soil Science (3). 2 hours lecture and one 2-hour lab

TO: Environmental and Soil Sciences 210 Introduction to Soil Science (4). 3 hours lecture and one 2-hour lab

REVISE COURSE NUMBER:

FROM: Plant and Soil Sciences 292 Soil Morphology

TO: Environmental and Soil Sciences 242 Soil Morphology

FROM: Plant and Soil Sciences 311 Soil Nutrient Management and Fertilizers

TO: Environmental and Soil Sciences 334 Soil Nutrient Management and Fertilizers

REVISE COURSE NUMBER AND DESCRIPTION:

FROM: Plant and Soil Sciences 315 Soil and Water Conservation (3) Hydrologic, agronomic, and engineering principles applied to resource management problems including flood and erosion control, drainage, and water quality. Prereq: 210. 2 hours lecture and one 2-hour lab. Sp.

TO: Environmental and Soil Sciences 324 Soil and Water Conservation (3) Investigation of hydrologic principles regarding soil and water conservation. Topics include: hydrologic cycle, water quality, soil properties, erosion prediction and control, and techniques to protect natural resources. Prereq: 210. 2 hours lecture and one 2-hour lab. Sp.

REVISE COURSE NUMBER AND PREREQUISITES:

FROM: Plant and Soil Sciences 412 Soil Genesis and Classification. Prereq: **PSS 310**

TO: Environmental and Soil Sciences 442 Soil Genesis and Classification. Prereq: **ESS 210**

FROM: Plant and Soil Sciences 413 Environmental Soil Chemistry. Prereq: **310 and Chemistry 110 or 350**

TO: Environmental and Soil Sciences 434 Environmental Soil Chemistry. Prereq: **ESS 210 and Chemistry 350**

REVISE COURSE NUMBER, TITLE, DESCRIPTION, PREREQUISITES:

FROM: Plant and Soil Sciences 414 **Soil, Land Use and the Environment (3)**. Prereq: 310

TO: Environmental and Soil Sciences 481 **Capstone in Environmental and Soil Sciences (3)**. Integrative course in which students work individually and collaboratively to develop solutions for soil and water related environmental problems. Writing and oral communication emphasis course. Prereq: 434 and senior standing

FROM: Plant and Soil Sciences 415 **Soil Hydrology**. (3) Prereq: 310

TO: Environmental and Soil Sciences 444 **Environmental Soil Physics**. (3) Basic understanding of soil physical properties and processes; practical experience in measurement and analysis of soil physical properties; methods of analysis related to agricultural, environmental, and engineering issues. Prereq: 210 and Physics 221 or equivalent.

FROM: Plant and Soil Sciences **432 Bioclimatology (3)**

TO: Environmental and Soil Sciences **462 Environmental Climatology (3)**. Study of atmosphere as environment. Physical, chemical and biological factors affecting climates of various earth environments; meteorological process affecting biosystems. Climatic change and the human impact on the atmosphere, consequences of climatic change and mitigation policies, microclimates and urban climates, atmospheric pollution, extreme events and ozone depletion. Design and operation of weather information systems; automated weather stations. Prereq: Agriculture and Natural Resources 290 or equivalent.

ADD:

Environmental and Soil Sciences 110 Introduction to Environmental and Soil Sciences (1). Invited speakers on current topics; career opportunities in the environmental sciences; field trip with departmental faculty. S/NC grading. F.

Environmental and Soil Sciences 301 Professional Development (1). Techniques of effective professional communications; professional ethics; interviewing and the job search. Prereq: Junior standing. Sp.

Environmental and Soil Sciences 355 Environmental Soil Biology (3). Biology and biochemistry of the soil environment as it applies to environmental and agricultural processes. Topics to include microbial ecology, biogeochemical cycling of soil elements, soil quality and bioremediation. Prereq: 210 and Microbiology 210. Sp.

Environmental and Soil Sciences 492 Internship (1-6). Supervised experience with a departmentally-approved employer. Student is responsible for making arrangements. Requirements include maintaining a daily log, supervisor evaluations, and a final report. May be repeated with a maximum of 6 hours credit. Prereq: Junior standing. S/NC. E

Environmental and Soil Sciences 493 Problems in Environmental and Soil Sciences (1-3). Special research problems in environmental sciences. May be repeated. Maximum 6 hours. Prereq: Approval of Department and Junior Standing. E.

EFFECTIVE DATE: Fall 2002 for all Biosystems Engineering, Biosystems Engineering Technology, and Environmental and Soil Sciences course changes

ENTOMOLOGY AND PLANT PATHOLOGY

ADD:

201 Impact of Insects and Plant Diseases on Human Societies (3) Insects and plant diseases have had a significant influence on human history, culture, and lifestyles. The science of entomology and plant pathology help humankind understand the impact of insects and plant pathogens on these dimensions of human existence. The development of strategies to capitalize on the beneficial aspects of these organisms will also be explored. 3 hours. Sp, A-O

EFFECTIVE DATE: Spring Semester, 2002

FOOD SCIENCE AND TECHNOLOGY

ADD:

301 Professional Development (1) Professional development requirements, resources and opportunities. Individual written and oral report and group discussion on careers and food companies. Prerequisite: Junior standing or consent of instructor.

- 445 Application of Food Chemistry and Processing Principles (4) Interactions and functions of dairy, egg, cereal and other plant based ingredients during the production and storage of processed food products. Prerequisite: FST 340 and 410 or consent of instructor. 3 hours lecture and 1 lab.

EFFECTIVE DATE: Fall 2002

DROP:

- 452 Dairy Science (3)
EFFECTIVE DATE: Spring 2003

- 470 Crop Products (3)
EFFECTIVE DATE: Fall 2002

- 480 Cereal and Bakery Science (3)
EFFECTIVE DATE: FALL 2002

REVISE COURSE NAME

- 340 Food Preservation and Packaging (3) (Formerly: Food Preservation)
- 401 Professional Food Science Communication (3) (Formerly: Food Science and Technology Seminar).
- 493 Practical Experience in Food Science and Technology (1-12 hrs) (Formerly: Independent Study)
- 495 Quality Assurance and Sanitation Practices (3) (Formerly: 495 Food Processing System Analysis and Evaluation)

EFFECTIVE DATE: Fall 2002

PLANT SCIENCES AND LANDSCAPE SYSTEMS

Ornamental Horticulture and Landscape Design

ADD:

- 427 Management and Administration of Public Horticulture Institutions (3) Management of resources in non-profit institutions, support organizations and communities. Theoretical framework and institutional mission; strategic planning and programming; financial accounting and budgeting; development and fund raising; personnel policies; volunteer development; marketing and publicity; legal issues; relationships between staff and governing boards; the use of information technology in management and governance systems; and conservation/preservation roles in community development. Prereq: 326. F
- 435 Public Garden Operations and Management (3) An analysis of year-round operations and management of public gardens. Case studies involving time and labor management, budget development and management, implementation of volunteer programs, information dissemination methods for public outreach, management of grounds and facilities using the University of Tennessee Institute of Agriculture Gardens as a model. Prereq: 326. Sp
- 436 Plant and Garden Photography (2) Principles and techniques of photography as they relate to plants and gardens. Study of equipment options and field shooting under various weather conditions and in different seasons. Prereq: 326 or consent of the instructor. Sp, A-O

446 Horticulture Therapy (3) Application of horticulture as therapy for treatment, rehabilitation and/or training of individuals with disabilities. Prereq: 326, senior standing, or consent of the instructor. F, A-E

EFFECTIVE DATE: Spring, 2002

DROP:

431 Greenhouse Floral Crop Production Laboratory (1)

EFFECTIVE DATE: Spring, 2002

REVISE COURSE NUMBER, CREDIT, AND PREREQUISITES:

FROM:

426 Public Horticulture (2) In-depth study of the public horticulture industry. Attention given to the diversity of public horticulture institutions, career opportunities, and research. Discussion of current topics and issues. Prereq: Must have senior standing in OHLD or consent of the instructor. Sp

TO:

326 Public Horticulture (3) In-depth study of the public horticulture industry. Attention given to the diversity of public horticulture institutions, career opportunities, and research. Discussion of current topics and issues. Prereq: 110 or consent of the instructor. F

EFFECTIVE DATE: Fall, 2002

REVISE CREDIT HOURS:

380 Supplemental Landscape Design Graphics (3) (Formerly 2)

EFFECTIVE DATE: Fall, 2002

REVISE COURSE PREREQUISITES:

110 Introduction to Ornamental Horticulture (3) (Formerly None) Prereq: Enrollment is restricted to PSLS freshmen and transfer sophomores; open to all non-majors.

429 Field Study of Public Horticulture Institutions (3) (Formerly 426) Prereq: 326

EFFECTIVE DATE: Fall, 2002 for above two courses

REVISE SEMESTER OFFERED:

391 Spring Herbaceous Ornamental Plants (3) Sp, A-E (Formerly Sp)

EFFECTIVE DATE: Fall, 2002

ADD NEW COURSE DESIGNATION:

PSLS Plant Sciences and Landscape Systems

REVISE COURSE DESIGNATION AND PREREQUISITES:

PSLS 471 Statistics for Biological Research (3) Prereq.: calculus (Formerly PSS, Prereq.: Mathematics 121 or equivalent.)

EFFECTIVE DATE: Fall, 2002

REVISE COURSE DESIGNATION AND COURSE DESCRIPTION:

FROM: OHL 490 Seminar (1) Current problems in ornamental horticulture and landscape design. Prereq: Senior standing. E

TO: PSL 490 Seminar (1) Current topics in Horticulture, Crop Sciences, and Landscape Design. Prereq: Senior Standing. F, Sp

FROM: OHL 492 Off-Campus Internship (1-3) Work experience in approved ornamentals, turf or landscaping industry. May be repeated. Maximum of 6 credits. E

TO: PSL 492 Internship in Horticultural and Plant Sciences (1-3) Supervised work experience with a departmentally-approved employer within the ornamental horticulture, turfgrass, production horticulture, or field crop science industry. May be repeated. Maximum of 6 credits. E

FROM: OHL 493 Individual Problem Study (1-3) May be repeated. Maximum of 6 credits. E

TO: PSL 493 Problems in Horticultural and Plant Sciences (1-3) Supervised individual problems relating to the plant sciences or landscape design. May be repeated. Maximum of 6 credits. E

EFFECTIVE DATE: Fall, 2002

ADD NEW COURSE DESIGNATION:

IPS Integrated Plant Systems

REVISE COURSE DESIGNATION:

IPS 433 Agricultural Pesticides (3) (Formerly PSS)

IPS 440 Advanced Turfgrass Management (4) (Formerly OHL)

REVISE COURSE DESIGNATION AND TITLE:

IPS 230 Introduction to Crop Science (3) (Formerly PSS 230 Introduction to Crop Science and World Crops)

REVISE COURSE DESIGNATION AND PREREQUISITE(S):

IPS 334 Weed Management (3) Prereq.: Environmental and Soil Sciences 210 (Formerly PSS 334, Prereq.: 210)

IPS 340 Turfgrass Management (3) Prereq.: Environmental and Soil Sciences 210; 8 hours biological/botanical sciences or consent of instructor (Formerly OHL 340 Prereq.: Plant and Soil Sciences 210; 8 hours biological sciences or consent of instructor)

IPS 431 Physiology and Ecology in Agroecosystems (3) Prereq.: 230 (Formerly PSS 431 Prereq.: 330)

- | | | |
|-----|-----|--|
| IPS | 434 | <u>Fruit and Vegetable Crops</u> (3) Prereq.: 230 (Formerly PSS 434 Prereq.: 230 or 330) |
| IPS | 435 | <u>Field and Forage Crops</u> (3) Prereq.: 230 (Formerly PSS435 Prereq.: 230 or 330) |
| IPS | 453 | <u>Principles of Plant Breeding</u> (3) Prereq.: Plant Sciences and Landscape Systems 471 and Biology 240 (Formerly PSS 453 Prereq.: 353, 471 Biology 240) |

EFFECTIVE DATE: Fall, 2002

Plant and Soil Sciences

DROP:

All PSS courses numbered 200 through 493.

EFFECTIVE DATE: Fall, 2002 for the above changes

College of Agricultural Sciences and Natural Resources Curricula Changes

REVISE MAJORS, MINORS AND CONCENTRATIONS on page 33 of the 2000-2001 Undergraduate Catalog,

From:

DEPARTMENT	MAJOR	CONCENTRATION	DEGREE
College of Agricultural Sciences and Natural Resources			
Agriculture (Interdepartmental Unit)			
Agricultural Biology			
Agricultural Economics and Rural Sociology	Agricultural Economics and Business ¹	Agricultural Equipment Systems Management	Bachelor of Science in Agriculture
Agricultural and Extension Education	Agricultural Education		Bachelor of Science in Agriculture
Animal Science	Animal Science ¹	Production/Management Science/Technology	Bachelor of Science in Agriculture
		Animal Science Curriculum with Pre-Veterinary Medicine (3+1)	Bachelor of Science in Agriculture
Agricultural and Biosystems Engineering	Biosystems Engineering	Agricultural Engineering Biological Engineering Food Engineering	Bachelor of Science in Biosystems Engineering
Biosystems Engineering Technology (minor only)			
Entomology and Plant Pathology			
Food Science and Technology	Food Science and Technology ¹	Science Business/Technology Pre-Professional	Bachelor of Science in Agriculture
Forestry, Wildlife and Fisheries	Forestry ¹	Forest Resources Management Wildland Recreation	Bachelor of Science in Forestry
	Wildlife and Fisheries Science ¹		Bachelor of Science in Wildlife and Fisheries Science
Ornamental Horticulture and Landscape Design	Ornamental Horticulture and Landscape Design ¹	Business Horticulture Science and Management Public Horticulture Landscape Design	Bachelor of Science in Ornamental Horticulture and Landscape Design
Plant and Soil Sciences	Plant and Soil Sciences ¹	Science/Technology Management/Consulting Environmental Science and Natural Resources	Bachelor of Science in Plant and Soil Sciences

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To:

DEPARTMENT	MAJOR	CONCENTRATION	DEGREE
College of Agricultural Sciences and Natural Resources			
Agriculture and Natural Resources (Interdepartmental Unit)			
Agricultural Economics	Agricultural Economics and Business ¹	Agricultural Equipment Systems Management	Bachelor of Science in Agriculture
Agricultural and Extension Education	Agricultural Education		Bachelor of Science in Agriculture
Animal Science	Animal Science ¹	Production and Business Science/Technology Science/Technology-Pre-Veterinary Medicine	Bachelor of Science in Animal Science
		Animal Science -Pre -Veterinary (3+1)	
Biosystems Engineering and Environmental Science	Biosystems Engineering	Food Engineering	Bachelor of Science in Biosystems Engineering
	Biosystems Engineering Technology (minor only)		
	Environmental and Soil Sciences	Soil Science Environmental Science	Bachelor of Science in Environmental and Soil Sciences
Entomology and Plant Pathology			
Food Science and Technology	Food Science and Technology ¹	Science Business/Technology Pre-Professional	Bachelor of Science in Agriculture
Forestry, Wildlife and Fisheries	Forestry ¹	Forest Resources Management Wildland Recreation	Bachelor of Science in Forestry
	Wildlife and Fisheries Science ¹		Bachelor of Science in Wildlife and Fisheries Science
Plant Sciences and Landscape Systems	Plant Sciences and Landscape Systems	Business Management Horticulture & Agronomy Landscape Design Public Horticulture Turfgrass Management	Bachelor of Science in Plant Sciences and Landscape Systems
	Integrated Plant Systems (minor only)		
	Ornamental Horticulture and Landscape Design (minor only)		

Effective Date: Fall 2002

COLLEGE REQUIREMENTS:

FROM: (see page 38 of the 2001-2002 Undergraduate Catalog)

Minimum Requirements for Baccalaureate Degree Programs

All B.S. degree programs offered in the College have the following minimum requirements:

Perspectives in Agriculture and Associated Natural Resources (3) (counts towards the University's general education requirement for 6 hours of integrative studies)

Biological Sciences (College of Agricultural Sciences and Natural Resources courses included¹) (8)

Computer Science (3) (Or equivalent experience. See specific departmental requirements.)

English and Communications to include English Composition (6), Speech (3), and an additional communications elective (3) for a total of 12 (the communications elective may overlay to fulfill one course for the University's humanities electives)

Mathematics (6)

Physical Sciences (Chemistry, Physics, Geology) (8)

Social Sciences and Humanities to include Economics (4) and other electives (8) for a total of 12 (Economics (4) may overlay to fulfill one course for the University's social science electives)

²Directed Electives (6)

Major Courses (24)

³College of Agricultural Sciences and Natural Resources courses (outside of the major department) designated by the department and/or electives (12)

Other courses designated by the department and/or electives (38)

For a total of 132 hours.

¹ Bachelor of Science in Biosystems Engineering

² Must be courses in English and communications, biological sciences, physical sciences, or social sciences and humanities, historical studies, integrative studies or combinations of these subject matter areas in order for degree programs to meet the University's general education requirements.

³ Bachelor of Science in Biosystems Engineering and Bachelor of Science in Forestry program excepted.

TO:

Minimum Requirements for Baccalaureate Degree Programs

All B.S. degree programs offered in the College have the following minimum requirements:

Communicating through Writing (3 courses that include two English Composition courses and one course designated as "writing intensive" (W) in the undergraduate catalog.)

Communication (1 course from specified list)

Quantitative Reasoning (2 courses, 6 hours minimum, from two math or statistics courses from approved list)

Arts and Humanities (2 courses, 6 hours minimum, from approved list)

Social Sciences (2 courses, 6 hours minimum, from approved list)

History (2 courses, 6 hours minimum, from approved list)

Biological Sciences (2 courses, 6 hours minimum, College of Agricultural Sciences and Natural Resources courses included)

Physical Sciences (2 courses, 6 hours minimum from Chemistry, Physics or Geology)

Computer Applications (ANR 290 or equivalent)

Major Courses (24) (These courses are specified within each major)

For a total of 124 hours minimum.

AGRICULTURAL ECONOMICS

On page 39 of the 2001-2002 Undergraduate Catalog, change requirements for Major in Agricultural Economics and Business.

<u>From:</u>	<u>Hours Credit</u>
Freshman	
Agricultural Economics 110	1
Agriculture and Natural Resources 101	3
¹ Biological Science Elective	8
Mathematics 123, 125	6
English 101, 102	6
² Humanities Elective	3
² History Electives	6
	33
Sophomore	
Agriculture and Natural Resources 290	3
Economics 201	4
³ Physical Science Electives	8
Speech 210 or 240	3
Accounting 201, 202	6
Animal Science 260 or 381	3
Plant and Soil Science 210 or 230	3
Statistics 201	3
	33
Junior	
Rural Sociology 380	3
Economics 313	3
Statistics 302	3
² Nondepartmental Agricultural Electives	6
Agricultural Economics 320, 342, 350, 412	12
Humanities Elective	3
English 295	3
	33
Senior	
Agricultural Economics 410	1
Agricultural Economics or Rural Sociology Electives	12
¹ Business Electives	6
Integrative Studies Elective	3
Electives	11
	<u>33</u>
Total	132

¹Selected from Biology 101, 102, 130, 140.
²See advisor for list of acceptable courses.
³Selected from Chemistry 100-110 or 120-130,
Geology 101-102 or 103, Physics 121-122.

<u>To:</u>	<u>Hours Credit</u>
Freshman	
Agricultural Economics 110	1
Agriculture and Natural Resources 290	3
¹ Biological Science Electives	8
² History Electives	6
English 101, 102	6
Mathematics 123, 125	6
	30
Sophomore	
Accounting 201, 202	5
Agricultural Economics 212	3
Animal Science 280 or 381	3
Economics 201	4
² Humanities Elective	3
³ Physical Science Electives	8
Environmental and Soil Sciences 210 or Integrated Plant Systems 230	3-4
Statistics 201	3
	32-33
Junior	
Agricultural Economics 310, 320, 342, 350, 412	13
English 295 or 360 or Journalism 201	3
² Nondepartmental Agricultural Electives	6
Rural Sociology 380	3
Speech 210 or 240	3
Statistics 320 or 365	3
Electives	3
	34
Senior	
Agricultural Economics 410	1
⁴ Agricultural Economics or Rural Sociology Electives	15
Economics 313	3
² Humanities Elective	3
Electives	8-9
	<u>30-31</u>
Total	127

¹Selected from Biology 101, 102, 130, 140.
²See advisor for list of acceptable courses.
³Selected from Chemistry 100, 110, 120, 130,
Geography 131, 132, Geology 101, 102, 103.
⁴A minimum of 9 credit hours must be taken from the
following courses: Agricultural Economics 355,
360, 420, 430, 442, 450, 470. A maximum of 3
credit hours can be used from each of the follow
ing courses: Agricultural Economics 356 and 492.

On page 39 of the 2001-2002 Undergraduate Catalog, change requirements for Major in Agricultural Economics and Business: Concentration in Agricultural Equipment Systems Management.

<u>From:</u>	<u>Hours Credit</u>
Freshman	
Agricultural Economics 110	1
Agriculture and Natural Resources 101	3
Botany 110, 120	8
Mathematics 123, 125	6
English 101, 102	6
¹ Humanities Elective	3
¹ History Electives	6
	<u>33</u>
Sophomore	
Economics 201	4
Accounting 201, 202	6
Statistics 201	3
Biosystems Engineering Technology 202	3
Agriculture and Natural Resources 290	3
Plant and Soil Science 210	3
Chemistry 120	4
Physics 161	3
Speech 210 or 240	3
	<u>32</u>
Junior	
Agricultural Economics 320, 342, 350, 412	12
Rural Sociology 380	3
Economics 313	3
Statistics 320	3
Business Law 301	3
English 295	3
Biosystems Engineering 315	3
Biosystems Engineering Technology 452	3
	<u>33</u>
Senior	
Agricultural Economics 410	1
Agricultural Economics 442	3
Agricultural Economics or Rural Sociology Electives	6
¹ Business Elective	3
Biosystems Engineering Technology 432	3
Biosystems Engineering Technology 462	3
Biosystems Engineering Technology Electives	6
¹ Nondepartmental Agricultural Elective	3
¹ Humanities Elective	3
Electives	3
	<u>34</u>
Total	132

¹See advisor for list of acceptable courses.

<u>To:</u>	<u>Hours Credit</u>
Freshman	
Agricultural Economics 110	1
Agriculture and Natural Resources 290	3
Botany 110, 120	8
History Electives	6
English 101, 102	6
Mathematics 123, 125	6
	<u>30</u>
Sophomore	
Accounting 201, 202	5
Agricultural Economics 212	3
Biosystems Engineering Technology 202	3
Chemistry 120	4
Economics 201	4
¹ Humanities Elective	3
Physics 161	3
Environmental and Soil Sciences 210	4
Statistics 201	3
	<u>32</u>
Junior	
Agricultural Economics 310, 320, 342, 350, 412	13
Biosystems Engineering 315	3
Biosystems Engineering Technology 452	3
English 295 or 360 or Journalism 201	3
¹ Humanities Elective	3
Rural Sociology 380	3
Speech 210 or 240	3
Statistics 320 or 365	3
	<u>34</u>
Senior	
Agricultural Economics 410, 442	4
² Agricultural Economics or Rural Sociology Electives	9
Biosystems Engineering Technology 432, 462	6
Biosystems Engineering Technology Electives	6
Economics 313	3
¹ Nondepartmental Agricultural Elective	3
	<u>31</u>
Total	127

¹See advisor for list of acceptable courses.

²A minimum of 6 credit hours must be taken from the following list of courses: Agricultural Economics 355, 360, 420, 430, 450, 470. A maximum of 3 credit hours can be used from each of the following courses: Agricultural Economics 356 and 492.

Agricultural Economics and Business: Minor

On page 39 of the 2001-2002 Undergraduate Catalog, change requirements

From:

Minor consists of 16 credit hours including Economics 201, Agricultural Economics 342, 350, 412 and a 3-hour elective in Agricultural Economics.

To:

Minor consists of 19 credit hours including Economics 201, Agricultural Economics 212, 342, 350, 412 and a 3-hour elective in Agricultural Economics.

Effective date: Fall 2002

ANIMAL SCIENCE

REVISE DEGREE NAME:

From:

Bachelor of Science in Agriculture

To:

Bachelor of Science in Animal Science

Summary of changes in the curriculum's concentrations:

1. Change concentration name from "Animal Science: Production and Management" to "Animal Science: Production and Business". Require a minor in Business or Agricultural Economics and Business for the Production and Business concentration.
2. Drop AS 101: Orientation to Animal Science (1 hr).
3. Change AS 260: Animal Industry and Market Evaluation (3 hr) to AS 160: Introduction to Animal Science (3 hr).
4. Require AS 160 for all Animal Science concentrations.
5. Change AS 280: Farm Animal Management Practices (3 hr) to AS 280: Biotechnology and Management Practices in Animal Agriculture (3 hr).
6. Require AS 280 for all Animal Science concentrations.
7. Drop AS 48X requirement for Pre-vet 3 + 1 students (replaced by AS 280).
8. Change AS 330: Animal Nutrition, Feeds and Ration Formulation (4 hr) to AS 330: Comparative Animal Nutrition (3 hr).
9. Require AS 330 for all Animal Science concentrations.
10. Change AS 430: Advanced Ration Formulation (2 hr) to AS 430: Advanced Ration Formulation (3 hr).
11. Change AS 495: Seminar (1 hr) to AS 395: Careers Seminar (1 hr).
12. Require AS 395 for all Animal Science concentrations.
13. Revise AS 495 Seminar to a seminar course that focuses on "Ethics in Animal Agriculture" (1 hr).
14. Change hours required for graduation with a BS in Animal Science from 132 to 124 for Production and Business, Science and Technology, Science and Technology/ Pre-vet concentrations.
15. Change hours required for Pre-vet 3 + 1 from 99-100 to 96.

DIRECTED ELECTIVES LIST: AGRICULTURAL ECONOMICS AND BUSINESS MAJOR

History

History 221-222, 241-242, 261-262, 255-256

Humanities

Art 172-173
English 201-202, 231-232
Music General 110
Philosophy 110, 111, 130, 240, 342;
Religious Studies 101, 102
Theatre 100

Nondepartmental Agricultural Electives

Animal Science 280; 381
Entomology and Plant Pathology 313, 321
Food Science and Technology 140
Forestry, Wildlife and Fisheries 211, 250
Ornamental Horticulture and Landscape Design 110
Environmental and Soil Sciences 210
Integrated Plant Systems 230

REVISE REQUIREMENTS AND NAME of the Animal Science Concentration in Production/Management on page 42 of the 2001-2002 Undergraduate Catalog, to:

ANIMAL SCIENCE: CONCENTRATION IN PRODUCTION/BUSINESS

Freshman	Credit
Animal Science 160	3
Biology 130-140 or 101-102	8
English 101-102	6
Math 123-125, 141-142 or 151-152	6
Chemistry 100-110 or 120-130	8
Total	31

Sophomore	Credit
Animal Science 220, 280	6
Agriculture and Natural Resources 290	3
Environmental and Soil Sciences 210	4
Speech 210 or 240	3
Humanities Writing Intensive Elective	3
Economics 201	4
Humanities	3
Business/Agricultural Economics & Business Minor	3
Social Science Elective	3
Total	32

Junior Credit	
Animal Science 320, 330, 340, 380, 395	13
Biological Science Restricted Elective	3
History	6
Animal Science 361, 362, or 364 (select one course)	2
Business/Agricultural Economics & Business Minor	6
Total	30

Senior	Credit
Animal Science 430, 495	4
Animal Science 481, 482, 483, 484, 485, or 489 (select two courses)	6
Business/Agricultural Economics & Business Minor	13
Free Electives	9
Total	32

Total 124

Requirements for a Business Minor: Accounting 201, 202 (5), Economics 201 (4), Statistics 201 (3), Business Functions 201 (4), Finance 301 (3), Marketing 300 (3), and Management 300 (3)

Requirements for an Agricultural Economics & Business Minor: Economics 201, Agricultural Economics 342, 350, 412, and a 3-hour elective in Agricultural Economics (total of 16 credits)

REVISE REQUIREMENTS AND NAME of the Animal Science Concentration in Science/Technology on page 42 of the 2001-2002 Undergraduate Catalog, to:

ANIMAL SCIENCE: CONCENTRATION IN SCIENCE/TECHNOLOGY

Freshman	Credit
Animal Science 160	3
Biology 130-140	8
English 101-102	6
Math 123-125, 141-142 or 151-152	6
Chemistry 120-130	<u>8</u>
Total	31

Sophomore	Credit
Animal Science 220, 280	6
Agriculture and Natural Resources 290	3
Speech 210 or 240	3
Humanities Writing Intensive Elective	3
Economics 201	4
Physical Science and Math Restricted Elective	8
Biological Science Restricted Elective	<u>3</u>
Total	30

Junior	Credit
Animal Science 320, 330, 340, 380, & 395	13
Biological Science Restricted Elective	8
Physical Science and Math Restricted Elective	6
History Elective	<u>3</u>
Total	30

Senior	Credit
Animal Science 495	1
Animal Science 481, 482, 483, 484, 485, or 489 (select one course)	3
Humanities Elective	3
Biological Science Restricted Elective	3
History Elective	3
Social Science Elective	3
Business Elective	6
Free Electives	<u>11</u>
Total	33

Total	124
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ADD the Animal Science Concentration in Science/Technology–Pre-Veterinary Medicine on page 42 of the 2001-2002 Undergraduate Catalog:

ANIMAL SCIENCE WITH CONCENTRATION IN SCIENCE/TECHNOLOGY – PRE-VETERINARY MEDICINE

Freshman	Credit
Animal Science 160	3
Biology 130-140	8
English 101-102	6
Math 123-125, 141-142 or 151-152	6
Chemistry 120-130	<u>8</u>
Total	31

Sophomore	Credit
Animal Science 220, 280	6
Agriculture and Natural Resources 290	3
Speech 210 or 240	3
Humanities Writing Intensive Elective	3
Economics 201	4
Chemistry 350, 360 & 369	8
Biological Science Restricted Elective	<u>3</u>
Total	30

Junior	Credit
Animal Science 320, 330, 340, 380, & 395	13
Biological Science Restricted Elective	4
Physics 221-222	8
Humanities Elective	3
History Elective	<u>3</u>
Total	31

Senior	Credit
Animal Science 495	1
Animal Science 481, 482, 483, 484, 485, or 489 (select one course)	3
Biological Science Restricted Elective	3
Biochemistry 410	4
History Elective	3
Social Science Elective	3
Business Elective	6
Free Electives	<u>9</u>
Total	32

Total 124

REVISE NAME PROGRAM NAME:

On page 42 of the 2001-2002 Undergraduate Catalog, to:

From:

PRE-VETERINARY MEDICINE PROGRAM

To:

ANIMAL SCIENCE – PRE-VETERINARY MEDICINE PROGRAM (3+1)

REVISE PROGRAM REQUIREMENTS:

On page 43 of the 2001-2002 Undergraduate Catalog, revise requirements to:

Freshman	Credit
Animal Science 160	3
Biology 130-140	8
English 101- 102	6
Math 123-125, 141-142 or 151-152	6
Chemistry 120-130	<u>8</u>
Total	31

Sophomore	Credit
Animal Science 220, 280	6
Biological Science Restricted Elective	4
Agriculture and Natural Resources 290	3
Speech 210 or 240	3
Chemistry 350, 360 & 369	8
Physics 221-222	<u>8</u>
Total	32

Junior	Credit
Animal Science 320, 330, 340, 380, 395	13
Biochemistry 410	4
Humanities Elective	3
Humanities Writing Elective	3
Economics 201	4
History Elective	3
Social Science Elective	3
Total	33

Total	96
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FOOD SCIENCE AND TECHNOLOGY

REVISE Food Science and Technology Concentration in Science curriculum from that on page 43-44 of the 2001-2002 Undergraduate Catalog, TO:

Food Science and Technology Concentration in Science

Freshman	hours
¹ English	6
² Math	6
³ Biological Sciences	4
Chemistry 120-130	8
Food Science & Technology 140	3
Agriculture and Natural Resources 290	3
Sophomore	
Chemistry 350, 360-369	8
Microbiology 210 or higher	3
⁴ Physics	3
⁵ Social Science Electives	6
⁵ Humanities Elective	3
Food Science & Technology 340	3
Nutrition 100 or 300	3
Junior	
Food Science & Technology 301	1
Food Science & Technology 410 and 430	7
Biochemistry and Molecular Biology 310 or 410	4
Biosystems Engineering Technology 422	3
Plant Sciences & Landscape Systems 471 or Statistics 201	3
⁵ Humanities Elective	3
⁶ Writing intensive course	
⁵ History Electives	6
⁷ Oral Communication	3
Electives	3
Senior	
Food Science & Technology 401	1
Food Science & Technology 420-429	5
Food Science & Technology 445, 460, 490, 495	3
Nutrition 420	4
Food Science & Technology 493	3
Electives	6
Total hours	124

¹ May select either English 101 and 102 or English 118 and 102 (Students who obtain a grade of A or B in 118 may complete their freshman requirement with 102, 355, or with a 200 level course in the English department. The 200 level course may, if so listed, also be used toward the Humanities requirement.)

² Math placement depends on high school courses and grades and ACT scores. Math 119 or higher is required and Math 125 or 141 or 151.

³ May be chosen from Biology or Botany course.

⁴ May be chosen from a Physics course.

⁵ Lists of appropriate courses are available and should be selected in conference with academic advisor.

⁶ One course other than English requirements must be designated as "writing intensive" (W) in the undergraduate catalog.

⁷ May be chosen from Speech 210, 220 or 240

REVISE Food Science and Technology Pre-Professional Concentration curriculum from that on pages 43-44 of the 2001-2002 Undergraduate Catalog, TO:

FOOD SCIENCE AND TECHNOLOGY PREPROFESSIONAL CONCENTRATION

These programs in Pre-Dental, Pre-Medicine, Pre-Pharmacy and Pre-Veterinary Medicine allow students to be awarded a B.S. degree in Agriculture with a major in Food Science and Technology, after three years and the successful completion of the first year (two semesters) in UT-Memphis dental, medical or pharmacy programs or UT College of Veterinary Medicine, Knoxville. The last 30 hours of the three-year curriculum must have been taken at UT Knoxville. A total of 124 hours must be completed by the end of the first year in professional school. No later than December 31 of the student's first year in professional school (s)he should contact the Department Food Science and Technology in order to check on graduation procedures for this program.

Although a B.S. degree is not required for admission to the Colleges of Dentistry or Medicine, most of the students accepted into these programs have the baccalaureate degree before admission. Therefore students are encouraged to plan to complete all requirements for B.S. degree before enrolling in either of these colleges. A B.S. degree can be obtained before enrolling in the Doctor of Pharmacy (Pharm. D.) program.

Freshman	hours
¹ English	6
² Math	6
Biology 130-140	8
Chemistry 120-130	8
Food Science & Technology 140	3
Sophomore	
Chemistry 350, 360-369	8
Microbiology 210 or higher	3
³ Physics 221	4
⁴ Social Science Electives	6
Agriculture and Natural Resources 290	3
Food Science & Technology 340	3
Nutrition 100 or 300	3
Junior	
Food Science & Technology 301, 410, and 420-429	10
⁵ Biochemistry and Molecular Biology 310 or 410	4
⁵ Humanities Elective	6
Plant Sciences & Landscape Systems 471 or Statistics 201	3
⁶ Writing intensive course	
⁴ History Electives	6
⁷ Oral Communication	3
Electives	3

This curriculum meets the requirements for entrance to the CVM or UT medical, dental or pharmacy schools. After the first successful year in the professional school, the student will be awarded a B.S. in Agriculture with a major in Food Science and Technology. Should the student not gain admittance after the Junior year, the student could complete the following requirements during the Senior year for a major in Food Science and Technology with a Pre-professional concentration.

Senior	
Food Science & Technology 401, 430, 445, 490 and 495	14
Nutrition 420	4
⁸ Food Science & Technology electives	4
Electives	6
Total hours	124

¹ May select either English 101 and 102 or English 118 and 102 (Students who obtain a grade of A or B in 118 may complete their freshman requirement with 102, 355, or with a 200 level course in the English department. The 200 level course may, if so listed, also be used toward the Humanities requirement.)

² Math placement depends on high school courses and grades and ACT scores. Math 119 or higher is required and Math 125 or 141 or 151.

³ Pre-Med and Pre-Vet require Physics 222 also.

⁴ Lists of appropriate courses are available and should be selected in conference with academic advisor.

⁵ BCMB 230 required for Pre-Dental, BCMB 310 required for Pre-Pharmacy, BCMB 410 required for Pre-Med and Pre-Vet.

⁶ One course other than English requirements must be designated as "writing intensive" (W) in the undergraduate catalog.

⁷ May be chosen from Speech 210, 220 or 240

⁸ May be chosen from FST 442, 460, 469, 493

REVISE Food Science and Technology Concentration in Technology/Business curriculum from that on pages 43-44 of the *2001-2002 Undergraduate Catalog*, TO:

FOOD SCIENCE AND TECHNOLOGY CONCENTRATION IN TECHNOLOGY/BUSINESS

Freshman	hours
¹ English	6
² Math	6
³ Biological Sciences	4
Chemistry 100 or 120	4
⁴ Humanities Elective	3
Food Science & Technology 140	3
Agriculture and Natural Resources 290	3
Sophomore	
Chemistry 110	4
Microbiology 210 or higher	3
Food Science & Technology 240	2
⁴ Social Science Electives	6
⁵ Writing intensive course	
⁴ Directed Technology/Business electives	6
Food Science & Technology 340	3
Nutrition 100 or 300 or Animal Science 381	3
Junior	
Food Science & Technology 301, 410 and 430	8
⁴ Humanities Elective	3
⁴ History Electives	6
⁶ Oral Communication	3
⁴ Directed Technology/Business electives	9
Statistics 201 or Plant Sciences & Landscape Systems 471	3
Statistics 365	3
Electives	3
Senior	
Food Science & Technology 401	1
Food Science & Technology 420-429	5
Food Science & Technology 445, 460, 490 and 495	13
⁴ Directed Technology/Business electives	3
Food Science & Technology 493	3
Electives	6
Total hours	124

¹ May select either English 101 and 102 or English 118 and 102 (Students who obtain a grade of A or B in 118 may

complete their freshman requirement with 102, 355, or with a 200 level course in the English department. The 200 level course may, if so listed, also be used toward the Humanities requirement.)

² Math placement depends on high school courses and grades and ACT scores. Math 110 or higher is required and Math 119 or higher.

³ May be chosen from Biology or Botany course.

⁴ Lists of appropriate courses are available and should be selected in conference with academic advisor.

⁵ One course other than English requirements must be designated as "writing intensive" (W) in the undergraduate catalog.

⁸ May be chosen from Speech 210, 220 or 240

FORESTRY

On page 45 of the 2001-2002 Undergraduate Catalog, REVISE the Forest Resources Management Concentration as follows:

Sophomore

FROM: Plant and Soil Sciences 210 3
TO: Environmental and Soil Sciences 210 4

On page 45 of the 2001-2002 Undergraduate Catalog, REVISE the Wildland Recreation Concentration as follows:

Freshman

DROP: Agriculture and Natural Resources 101 3
ADD: Forestry 100 3

FROM: LD Psychology or LD Sociology or Urban Studies 200 or Anthropology 130 3
TO: Psychology 110 or Sociology 120 or LD Psychology or LD Sociology or Urban Studies 200
or Anthropology 130 3

Sophomore

DROP: UD Psychology or UD Sociology or Geography 320 or 323 3
Journalism 201, 412, 450, 451, or English 295 3
Speech 220, 230, 270, 310, 320, 330, or 420 3
ADD: Sociology 360 or 465, or Sociology 345, 363, 370, 380 or 464, or Geography 320, 323,
or 345 3

FROM: Plant and Soil Sciences 210 3
TO: Environmental and Soil Sciences 210 4

FROM: Biology 250 or Forestry 315 3-4
TO: Forestry 315 or Biology 250 3-4

Junior

DROP: Wildlife & Fisheries Science 341 3
ADD: Forestry 314 or Political Science 440 or 441 or Management 301 or 440 2-3

FROM: ² Ethics Elective 3
TO: Philosophy 346 or 110, 130, 240, 290, or 342 3

FROM: 6 hours from Recreation 310, 410, 415, 430, OHLD 280, 370 6

TO: Recreation 310, 410, 415, 430 or 470 3
OHL 280, 350, 370, 421, 426 3

Senior

DROP: Political Science 440, 441, Management 301, 440, Accounting, Planning 402..... 3
ADD: Journalism 451 or 290, Communication 450, Art Media Arts 231 or 236, Journalism 201,
310, 412, or 450, or English 295 3
Speech 330 or 440, or 220, 230, 270, 310, 320, or 420 3
Geography 411, Planning 402, Biosystems Engineering Technology 212, or
Geography 310, 410, 413 3

REVISE ELECTIVES LISTS

FROM:

APPROVED ELECTIVES

For both Forest Resource Management and Wildland Recreation Concentrations

The two concentrations in the Bachelor of Science in require courses in a number of general education. Below are specific courses that meet the requirements in each of the areas. Courses listed for social science, humanities, and history are from a University-wide list, while those for communications have been developed within the Department of Forestry, Wildlife and Fisheries. Other courses may satisfy the requirements. If you are interested in an unlisted course, see the description of each area under general education requirements (page 46 in the 1997-98 UT Undergraduate Catalog) and then discuss it with your advisor.

SOCIAL SCIENCES

- Afro-American Studies 201, 202, 314, 315, 343, 373, 379, 442, 452, 473, 480, 483
- American Studies 310.410
- Anthropology 110, 120, 130, 302, 306, 310-320, 360, 361, 373, 410, 412, 413, 462-463, 495
- Botany 305.306
- Business Administration 311
- Child and Family Studies 220, 240
- Cinema Studies 312
- Geography 101, 102, 320, 323, 340, 361, 363, 365,372, 373. 375, 421, 425, 441, 443, 445
- Geology 201, 202
- Latin-American Studies 251, 252, 313, 355, 372, 373, 401, 455
- Medieval Studies 475
- Music History 330
- Political Science 101, 102, 311-312, 315, 320-322, 330, 331, 340, 350, 355, 361, 365, 366, 370, 374, 411, 412, 420, 430, 431, 440-442, 452, 454, 455, 459, 461, 463, 470, 475, 476
- Psychology 110, 220, 300, 310, 330, 360, 370, 424, 470, 480
- Religious Studies 232, 302, 319, 373
- Rural Sociology 380
- Russian and East European Studies 375, 469
- Sociology 110, 200, 232, 291, 310, 311, 319, 321, 330, 340, 343-346, 350-352, 360, 363, 370, 375, 380, 415, 442, 446, 451, 455, 459, 462, 464
- Speech Communication 466, 469
- University Honors 347
- Urban Studies 321, 323, 441, 454, 464
- Woman's Studies 220, 230, 310, 340, 375, 434, 466, 483

HUMANITIES

- Afro-American Studies 352, 353, 429
- American Studies 334

Art 171, 176, 183, 371, 374, 385, 386, 486
Asian Studies 101, 102
Cinema Studies 281, 323, 334, 420, 421, 469
Classics 221, 222, 232, 233, 253, 254, 331, 334, 381-383
Comparative Literature 201-203
Economics 325
English 201, 202, 221, 222, 232, 233, 251-253, 281, 301, 302, 306, 332-334, 351, 381, 389, 401, 402, 404-406,
409-416, 419-422, 431-436, 441-443, 451-454, 480-483
French 410-415, 420, 431-434
German 323, 363, 424, 485
Italian 401-405, 421
Latin American Studies 311, 431, 432, 471, 473, 474, 479
Medieval Studies 201, 202, 261, 262, 322, 371, 372, 381, 382, 401-403, 410, 415, 475
Music General 110, 120
Music History 350, 390, 460
Philosophy 110, 111, 120, 121, 130, 135, 240, 290, 320, 322, 324, 326, 342, 344, 345, 349, 350, 353, 370, 374,
376, 379, 380, 382, 390, 393, 395, 411, 412, 420, 440, 446, 473, 479
Portuguese 431, 432
Religious Studies 101, 102, 300, 301, 305, 311-313, 320, 326, 332, 342, 344, 345, 351-353, 355, 370, 373, 374,
376, 379, 383, 384, 389, 411, 412, 446, 490
Russian 221, 222, 301, 302, 371, 372
Russian and East European Studies 301, 302, 393
Spanish 291, 345, 431, 435, 436, 450, 471, 473, 474, 479
Theatre 100, 313
University Honors 118, 128, 337
Woman's Studies 210, 215, 320, 330, 332, 360, 380, 382, 383, 422, 433, 469

HISTORY

Afro-American Studies 201, 202, 310, 350, 371, 372, 421, 445
American Studies 440
Anthropology 361
Architecture 211, 212, 406, 415
Art 172, 173, 371, 372, 374, 375, 381-384, 471-476, 485
Asian Studies 101, 102
Classics 381, 382
Dance 480, 490
English 301, 302
Geography 425
History (all courses)
Italian 311, 312
Latin-American Studies 360, 361, 471, 475
Medieval Studies 312, 313
Military Sciences 430
Music History 310
Philosophy 120, 121
Religious Studies 315, 321, 322
Russian and East European Studies 340, 341
Theatre 312, 313
Woman's Studies 432, 453

COMMUNICATIONS

English 263, 355, 363-365, 455, 456, 460, 463, 464
Journalism 201, 310, 412, 414, 450, 451
Speech Communications 210*, 220, 240*, 270, 310, 320

*All concentrations require 210 or 240; taking both would satisfy the speech requirement and the communications elective

TO:

APPROVED ELECTIVE COURSES

For both Forest Resource Management and Wildland Recreation Concentrations

The asterisk (*) indicates a writing emphasis course. Check with your advisor if you have any questions about these electives.

The two concentrations in the Bachelor of Science in Forestry require courses in a number of general education areas. Below are specific courses that meet the requirements in each of the areas. Courses listed for social science, humanities, and history are from a University-wide list, while those for communications have been developed within the Department of Forestry, Wildlife and Fisheries. Other courses may satisfy the requirements. If you are interested in an unlisted course, discuss it with your advisor.

SOCIAL SCIENCES

African-American Studies 315, 319, 343, 373, 379, 442, 452, 473, 480, 483

American Studies 310, 410, 423

Anthropology 110, 120, 130, 302, 305, 306, 310-321, 360, 361, 363, 373, 410, 412, 413, 462, 463, 495

Botany 305, 306

Business Administration 311

Child and Family Studies 220, 240

Cinema Studies 312

Geography 101, 102, 320, 323, 340, 351, 361, 363, 365, 371, 372, 373, 375, 379, 421, 423, 441, 443, 449

Geology 201, 202

Latin-American Studies 251, 252, 313, 314, 319, 331, 372, 373, 401, 456

Medieval Studies 475

Political Science 101, 102, 311-312, 315, 320, 330, 340, 350, 361, 365, 366, 374, 411, 412, 420, 430, 431, 440-442, 452, 454, 456, 459, 461, 463, 470, 471, 472, 475, 476

Psychology 110, 210, 300, 310, 320, 330, 360, 370, 415, 424, 434, 440, 470, 480

Religious Studies 232, 302, 319, 373-384

Rural Sociology 380

Sociology 110, 232, 291, 310, 311, 321, 340, 343-345, 350-352, 360, 363, 370, 375, 380, 405, 415, 442, 446, 451, 455, 459, 462, 464, 465

Speech Communication 466, 469

University Honors 347

Urban Studies 321, 323, 441, 454, 464

Woman's Studies 220, 230, 310, 340, 375, 434, 466, 483

HUMANITIES

African and African-American Studies 429*

Art (all courses of instruction—art, ceramics, design/graphic, drawing, education, history, media arts, painting, printmaking, sculpture)

Asian Languages (all courses except 199 - see catalog for writing emphasis courses)

Asian Studies 101*, 102*

Classics (all courses - see catalog for writing emphasis courses)

Comparative Literature 202*, 203*

Dance (all courses - see catalog for writing emphasis courses)

English 201-351 and 401-454, 480, 482 (see catalog for writing emphasis courses)

French (all courses except 199 - see catalog for writing emphasis courses)

German (all courses except 199 - see catalog for writing emphasis courses)
Greek (all courses - see catalog for writing emphasis courses)
Hebrew (all courses - see catalog for writing emphasis courses)
Italian (all courses except 199 - see catalog for writing emphasis courses)
Latin (all courses - see catalog for writing emphasis courses)
Medieval Studies (all courses - see catalog for writing emphasis courses)
Music (all courses of instruction - education, ensemble, general, history, instrument, jazz, keyboard, performance, technology, theory, voice - see catalog for writing emphasis courses)
Philosophy (all courses - see catalog for writing emphasis courses)
Persian (all courses - see catalog for writing emphasis courses)
Portuguese (all courses except 199 - see catalog for writing emphasis courses)
Religious Studies (all courses - see catalog for writing emphasis courses)
Russian (all courses except 199- see catalog for writing emphasis courses)
Spanish (all courses except 199 - see catalog for writing emphasis courses)
Theatre (all courses - see catalog for writing emphasis courses)
Women's Studies 210*, 215*, 320, 330*, 332*, 382*, 383*, 422, 433*, 483*

HISTORY

African-American Studies 201 ,202, 350, 371, 372, 445
American Studies 456
Anthropology 361
Architecture 211, 212, 406,412, 413, 415
Art History 162, 183, 403, 411, 415, 419, 425, 431, 441, 442, 451, 452, 453, 454, 461, 463
Asian Studies 101, 102
Classics 381, 382
Dance 480,490
English 301, 302
History (all courses)
Latin-American Studies 360, 361
Medieval Studies 312, 313
Military Sciences 430
Music History 115, 120, 210-220, 310
Philosophy 120, 121
Religious Studies 101, 310, 330
Theatre 411, 412
Woman's Studies 432, 453

COMMUNICATIONS

English 263, 355, 360, 363-365, 455, 460, 462, 463, 464
Journalism 201, 310, 412,414,450,451, 456
Speech Communications 220, 270, 310,320, 340, 420

WILDLIFE AND FISHERIES SCIENCE

REVISE the Wildlife and Fisheries Science curriculum as it appears on page 46 in the 2001-2002 Undergraduate catalog:

Freshman

DROP: ANR 101	3
ADD: 1History or Humanities Elective	3
FROM: Biology 130, 140	8
TO: Biology 130-140 or 101-102	8
FROM: Chemistry 120-130	8
TO: Chemistry 120-130 or 100-110.....	8

Sophomore

DROP: 1 Humanities Elective	6
ADD: 1 History or Humanities Elective	3
Forestry, Wildlife and Fisheries 311	3
FROM: Plant and Soil Sciences 210	3
TO: Environmental and Soil Sciences 210.....	4
FROM: Statistics 201 or Plant and Soil Sciences 471	3
TO: Statistics 201 or Plant Sciences and Landscape Systems 471	3

Junior

DROP: Forestry, Wildlife and Fisheries 311	3
Wildlife and Fisheries Science 350	3
ADD: 1 Science Elective	3
FROM: Ecology and Evolutionary Biology 470 o 446 or Pland and Soil Sciences 315	3-4
TO: Ecology and Evolutionary Biology 470 or 446 or Environmental and Soil Sciences 324	3-4

Senior

DROP: 1 History Elective	6
General Electives	7-8
ADD: 1 History or Humanities Elective	3
General Electives	5
1 Science Elective	3

REVISE ELECTIVES LISTS

FROM:

APPROVED ELECTIVES

The asterisk (*) indicates a writing Intensive course. Check with our advisor If you have any questions about these electives.

HISTORY

Afro-American Studies 426*, 473, 4801 483
American Studies 310
Anthropology 220, 360*, 461 *, 462*
Economics 415
French 431
History (all courses - see catalog for writing emphasis courses)
Italian 311, 312
Management 311
Philosophy 363
Religious Studies 101*

HUMANITIES:

Afro-American Studies 429*
Art 171, 172*, 173*, 176, 183*, 371, 372, 374, 375, 381, 382, 383, 384, 385*, 386*, 471, 472, 473, 474, 476, 485, 486*, 489
Asian Studies 101 *, 102*, 315
Classics (all courses - see catalog for writing emphasis courses)
Comparative Literature 201, 202-*, 203*
English. 201-351 and 379-454(see catalog for writing emphasis courses), 480, 482
French 291 *, 292', 311, 312, 313, 410-11-12-13-14-15, 420 430
German 301, 302, 325*, 326*, 363*, 420-21-22-23-24
Greek 261, 262, 401, 402, 405, 406
Italian 401-02-03-04-05-06
Latin 251, 252, 351, 352, 414, 431, 432, 435
Medieval Studies (all courses - see catalog for writing emphasis courses)
Music History (all courses - see catalog for writing emphasis courses)
Philosophy (all courses - see catalog for writing emphasis courses)
Portuguese 431, 432
Religious Studies (all courses - see catalog for writing emphasis courses)
Russian 221, 222*, 226, 301, 302, 321, 322, 326
Spanish 291, 292*, 311,, 312, 432, 433, 435, 436, 450, 472, 473
Theatre 100*, 210 *, 211 *, 310, 311, 31 2 *, 313 *
Women' Studies 210*, 215*, 3301, 332*, 380*, 382*, 383*, 422

TO:

APPROVED ELECTIVES

The asterisk (*) indicates a Writing Emphasis course. Check with your advisor if you have any questions about these electives.

HISTORY:

African and African-American Studies 371-372*, 381*, 429*, 445, 473, 480*, 483*
American Studies 310, 456
Anthropology 120, 310*, 360*, 361, 363*, 462*
Economics 415*
French 431
History (all courses - see catalog for writing emphasis courses)
Italian 311, 312
Management 311
Religious Studies 101*, 321*, 322*, 352*

HUMANITIES

African and African-American Studies 429*
Art (all courses of instruction - art, ceramics, design/graphic, drawing, education, history, media arts, painting, printmaking, sculpture)
Asian Languages (all courses except 199 - see catalog for writing emphasis courses)
Asian Studies 101*, 102*
Classics (all courses - see catalog for writing emphasis courses)
Comparative Literature 202*, 203*
Dance (all courses - see catalog for writing emphasis courses)
English 201-351 and 401-454, 480, 482 (see catalog for writing emphasis courses)
French (all courses except 199 - see catalog for writing emphasis courses)
German (all courses except 199 - see catalog for writing emphasis courses)
Greek (all courses - see catalog for writing emphasis courses)
Hebrew (all courses - see catalog for writing emphasis courses)
Italian (all courses except 199 - see catalog for writing emphasis courses)
Latin (all courses - see catalog for writing emphasis courses)
Medieval Studies (all courses - see catalog for writing emphasis courses)
Music (all courses of instruction - education, ensemble, general, history, instrument, jazz, keyboard, performance, technology, theory, voice - see catalog for writing emphasis courses)
Philosophy (all courses - see catalog for writing emphasis courses)
Persian (all courses - see catalog for writing emphasis courses)
Portuguese (all courses except 199 - see catalog for writing emphasis courses)
Religious Studies (all courses - see catalog for writing emphasis courses)
Russian (all courses except 199 - see catalog for writing emphasis courses)
Spanish (all courses except 199 - see catalog for writing emphasis courses)
Theatre (all courses - see catalog for writing emphasis courses)
Women's Studies 210*, 215*, 320, 330*, 332*, 382*, 383*, 422, 433*, 483*

**Reorganization of Departments and Curricula:
Department of Agricultural and Biosystems Engineering
Department of Ornamental Horticulture and Landscape Design
Department of Plant and Soil Sciences**

The College of Agricultural Sciences and Natural Resources, the Tennessee Agricultural Experiment Station, and UT Agricultural Extension Service have undergone reorganization of units over the years.

- In 1964, the Experiment Station Departments of Entomology and Plant Pathology were combined and named the Department of Agricultural Biology. In 1980 it was renamed the Department of Entomology and Plant Pathology.
- Also in 1964, the Department of Forestry was formed out of the Department of Horticulture. Later, it was renamed the Department of Forestry, Wildlife & Fisheries.
- In 1972, the Institute of Agriculture reorganized eliminating the Departments of Animal Husbandry, Dairying, Poultry, Horticulture, and Agronomy and creating the Department of Animal Science, Ornamental Horticulture and Landscape Design, and Plant and Soil Sciences. The food processing activities of four departments – Animal Husbandry, Dairying, Poultry, and Food Technology – were combined to form the new Department of Food Science and Technology.
- In 1986, the agricultural education program was transferred from the College of Education to the College of Agriculture and combined with the Department of Agricultural Extension to become the Department of Agricultural and Extension Education.
- **Effective July 1, 2001, the Departments of Agricultural and Biosystems Engineering, Ornamental Horticulture and Landscape Design, and Plant and Soil Sciences were reorganized into two departments: Biosystems Engineering and Environmental Science (BEES), and Plant Sciences and Landscape Systems (PSLS).** This reorganization was approved at the June, 2000 UT Board of Trustees meeting.

As with each of the previous changes, changes in academic programs resulted.

Recent departmental restructuring was the first step in laying the groundwork to develop new research emphases as well as updated degree programs and strategies for increasing enrollment and retention of undergraduate and graduate students. The departmental restructuring was necessitated by evolution and changing directions of the different disciplines involved. With the reorganization of the three departments into two, the management of concentrations has changed. The proposal that follows stems from the departmental reorganizations that necessitates the reorganization and renaming of academic programs.

The Ornamental Horticulture and Landscape Design major and associated concentrations (see pages 33 and 46 to 48 in the current Undergraduate Catalog) and the Plant and Soil Sciences major and two of its concentrations – Science/Technology and Management/Consulting – (see pages 33 and 48 to 49 in the current Undergraduate Catalog) are maintained by the new Department of Plant Sciences and Landscape Systems.

The Plant and Soil Sciences – Environmental Science and Natural Resources concentration (see pages 33 and 48 to 49 in the current Undergraduate Catalog) was moved to the new Department of Biosystems Engineering and Environmental Science. This concentration was originally developed by the Soils Faculty in the former Department of Plant and Soil Sciences. These faculty are now housed in BEES. The faculty propose to rename this degree Environmental and Soil Sciences with a concentration in Soil Environmental Science. They are also proposing two concentrations: Environmental Science and Agricultural Systems Management (ASM). The new ASM concentration will be more interdisciplinary in nature and will allow the department to attract students with an interest in precision crop agriculture. This concentration crosses the disciplines of agricultural technology, soils, and crops. Because it is more diverse than the other concentrations, the ASM concentration is not yet completed and will be submitted later.

All of the proposed changes are a natural evolution of the disciplines involved in the departmental reorganization and capitalizes on the talents of current faculty, recently hired faculty and the strategic plans of the departments. The table below summarizes the proposed changes.

Current Majors and Concentrations	Degree Name	Proposed Changes in Majors & Concentrations	Degree Name
Majors and Concentrations Managed by PSLS			
Orn Hort & Land Des Business Hort Sci & Mgmt Landscape Design Public Horticulture	BS in OHLD	Plant Science & Land. Systems drop drop Landscape Design Public Horticulture	BS in PSLS
Plant and Soil Sciences Env Sci & Natl Res Mgmt/Consult Science & Tech	BS in PSS	moved to BEES Business Management Horticulture and Agronomy Agronomy Track Horticulture Track Turfgrass Management	
Majors and Concentrations Managed by BEES			
Plant and Soil Sciences Env Sci & Natl Res	BS in PSS	Environmental and Soil Sciences Soil Science Environmental Science Agricultural Systems Mgmt. (to be developed)	BS in ESS
Biosystems Engr. Agri. Engineering Biological Engineering Food Engineering	BS in BE	¹ Biosystems Engr. ¹ Food Engineering	BS in BsE

¹ Changes in the Biosystems Engineering degree program were planned before the departmental restructuring and are not associated with the restructuring.

BIOSYSTEMS ENGINEERING AND ENVIRONMENTAL SCIENCE

Revise catalog statement and curricula:

Because of massive faculty, catalog text, and curricula changes, the entire proposed content of the former Agricultural and Biosystems Engineering material should be replaced with the material on the following pages. Changes include:

- addition of the soils faculty from the former Plant and Soil Science Department
- changes in text to reflect movement of the PSS major and PSS-Environmental Sciences concentration to Biosystems Engineering and Environmental Science; renaming the degree program.
- revisions to the Biosystems Engineering concentration (the current concentration listings are shown following the catalog material).
- the transferred environmental sciences program (renamed Environmental and Soil Sciences) and concentrations within it.

On pages 40 to 41 of the 2000-2001 Undergraduate Catalog, REVISE ENTIRE DEPARTMENTAL STATEMENT:

Biosystems Engineering and Environmental Science

<http://bioengr.ag.utk.edu>

Professors:

R.E. Yoder (Head), Ph.D. Colorado State, P.E.; J.T. Ammons, Ph.D. West Virginia; P.D. Ayers, Ph.D. North Carolina State, P.E.; F.F. Bell (Emeritus), Ph.D. Iowa State; H.P. Denton, Ph.D. North Carolina State; J.E. Foss (Emeritus), Ph.D. Minnesota; Z.A. Henry (Emeritus), Ph.D. North Carolina State, P.E.; D.H. Luttrell (Emeritus), Ph.D. Iowa State; J.J. McDow (Emeritus), Ph.D. Michigan State, P.E.; C.R. Mote (Assistant Dean, Tennessee Agricultural Experiment Station), Ph.D. Ohio State, P.E.; J.I. Sewell (Emeritus), Ph.D. North Carolina State, P.E.; C.H. Shelton (Emeritus), M.S. Virginia Polytechnic Institute; M.E. Springer (Emeritus), Ph.D., California (Berkeley); F.D. Tompkins (Interim Dean, College of Engineering), Ph.D. Tennessee, P.E.; D.D. Tyler, Ph.D. Kentucky; L.R. Wilhelm, Ph.D. Tennessee, P.E.; D.C. Yoder, Ph.D. Purdue.

Associate Professors:

M.E. Essington, Ph.D. California (Riverside); R.S. Freeland, Ph.D. Tennessee, P.E.; W.E. Hart, Ph.D. Purdue; J. Logan, Ph.D. Nebraska; L.O. Pordesimo, Ph.D. Pennsylvania State; D.R. Raman, Ph.D. Cornell, P.E.; H.J. Savoy, Ph.D. Louisiana State; J.B. Wilkerson, Ph.D. Purdue; A.R. Womac, Ph.D. Tennessee, P.E.

Assistant Professors:

J. Lee, Ph.D. Iowa State; J. S. Tyner, Ph.D. Oklahoma State; F. R. Walker, Ph.D. North Carolina State.

PROGRAMS AVAILABLE

The Department of Biosystems Engineering and Environmental Science offers two undergraduate degree programs: Bachelor of Science in Biosystems Engineering and Bachelor of Science in Environmental and Soil Sciences. The Biosystems Engineering program is a four-year, ABET-accredited engineering program emphasizing engineering applications to biological systems. The Environmental and Soil Sciences program is a strong science-based program for students interested in the environmental sciences. Minors in either Environmental and Soil Sciences or in Biosystems Engineering Technology are also available. More detailed descriptions of each program are included with the curriculum material that follows.

BIOSYSTEMS ENGINEERING

Advisors:

Professors Freeland, Hart, Pordesimo, Raman, Wilkerson, Womac, D. Yoder.

General:

The College of Agricultural Sciences and Natural Resources, in cooperation with the College of Engineering, offers a four-year curriculum leading to the degree of Bachelor of Science in Biosystems Engineering. The curriculum is accredited by the Engineering Commission of the Accreditation Board for Engineering and Technology (ABET). Overall goals of the program are emphasized in the Vision, Educational Objectives, and Program Outcomes statements listed below. Program details are given in the showcase curricula and the individual course descriptions provided.

Career opportunities for graduates include the design, the development, or the management of: practices that minimize soil erosion and conserve water resources; biological waste treatment systems; safer machinery systems with lower environmental impact; or improved food and bio-processing systems. Employment opportunities are available in a wide variety of industries, government agencies, research and testing organizations, and educational and non-profit institutions.

The math requirement for freshman admission to the Biosystems Engineering program is 3 1/2 units, including trigonometry and geometry. Otherwise, the general admission requirements of the University apply.

The curriculum provides instruction in the analytical and design skills needed to solve engineering problems related to biological and agricultural systems. Comprehensive design of systems and their components is emphasized in the senior year. In addition to the standard Biosystems Engineering curriculum, a concentration in Food Engineering is also available. The degree program has provisions for elective courses to be taken in specified subject areas. Students should outline a plan for all such electives not later than their second year of study. Proper scheduling of courses is very important, since prerequisite requirements must be met. Thus, students must consult with their advisors each semester to review their scheduling plan.

Students majoring in biosystems engineering are eligible to participate in the Engineering Cooperative Scholarship program and other student activities in the College of Engineering. Biosystems Engineering majors interested in the Cooperative Engineering Scholarship program should consult with their faculty advisor or the head of the Biosystems Engineering and Environmental Science Department (phone (865) 974-7266; e-mail: bees@utk.edu).

Vision:

The Biosystems Engineering Program at the University of Tennessee is committed to linking engineering sciences and mathematics to real-world problems involving natural and man-made biologically-based systems. We strive to educate students to become engineers with the ability to serve humanity by applying engineering knowledge to solve problems facing society. This education is accomplished by providing a strong grounding in engineering fundamentals and incorporating hands-on, real-world design scenarios throughout the curriculum.

Our graduates are technically competent in engineering design. They

- understand the steps in the engineering process;
- can define a problem;
- can gather the information required to solve a problem;
- can critically evaluate information from various sources;
- are creative and can synthesize solutions to a problem;
- can perform engineering analyses;
- can design components, machines, or systems to solve a problem;
- understand the importance of social, environmental, economic, and safety issues;
- appreciate the role of uncertainty and risk in engineering analyses.

Our graduates have the skills needed by professional engineers. Our program strives to instill

- an understanding of the engineering profession;
- the thrill of rewarding engineering accomplishments;
- a knowledge of the responsibilities of a practicing engineer;
- an ability to work effectively in teams of diverse makeup;
- an understanding of the importance of ethical conduct in a professional practice;
- effective oral, written, and graphical communications skills;
- the importance of taking initiative on projects;
- confidence in technical capabilities;
- strong personal time management skills;
- strong project management skills.

Educational Objectives:

Specific educational objectives have been established for the Biosystems Engineering Program. Consistent with the vision outlined above, the program objectives are that graduates have a mastery of:

- the mathematical tools normally required of junior engineers;
- the basic sciences relevant to engineering applications to biological systems;
- the engineering sciences required by their chosen concentration, and application of engineering principles to biological systems;
- the design process, including collection and analysis of information, identification of problems, formula formulation and selection of a solution, application of the solution, and effective communication of the results;
- teamwork skills, communication skills, and an understanding of professional, social, environmental, safety, and ethical considerations;
- the reasons for and importance of lifelong learning and of developing an appreciation for cultural and social expression beyond the realm of engineering.

Program Outcomes:

To achieve the educational objectives listed above, a series of program outcomes have been adopted. These program outcomes provide specific measures to determine the degree of success in meeting each of the educational objectives. These outcomes are as follows:

- an ability to apply knowledge of mathematics, science, and engineering
- an ability to design and conduct experiments, as well as to analyze and interpret data
- an ability to design a system, component, or process to meet desired needs
- an ability to function on multi-disciplinary teams
- an ability to identify, formulate, and solve engineering problems
- an understanding of professional and ethical responsibility
- an ability to communicate effectively
- the broad education necessary to understand the impact of engineering solutions in a global and societal context
- a recognition of the need for, and an ability to engage in, life-long learning
- a knowledge of contemporary issues
- an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice
- an understanding of the complexity of biological systems, and the ability to apply engineering principles to those system

BIOSYSTEMS ENGINEERING

Freshman

Engineering Fundamentals 101, 102	12
Biosystems Engineering 104	1
¹ Chemistry 120	4
¹ English 101, 102	6
^{1,2} Mathematics 141, 142	8
³ General Education Elective (Contemporary Issues Cluster)	3

Sophomore

Biosystems Engineering 201, 221, 321	7
Engineering Science 231, 321	6
Nuclear Engineering 203	3
Environmental and Soil Sciences 210	4
¹ Chemistry 130	4
Mathematics 200, 231, 241	8
Microbiology 210	3

Junior

Biosystems Engineering 411, 421, 431, 441, 451	6
Electrical and Computer Engineering 301	3
⁴ Fluid Science Elective	3
³ General Education Electives (Humanities or Arts Clusters)	6
Economics 201	4

Senior

Biosystems Engineering 401, 402, 444	12
³ General Education Elective (Engineering Practice in Global Societal Context Cluster)	3
Speech 210 or 240	3
English 360	3
Industrial Engineering 405	3
³ General Education Electives (Multicultural Studies Cluster)	3
⁵ Technical Elective	3
Total	131 hours

¹ Or equivalent honors course.

² If mathematics placement test score is unsatisfactory, take Mathematics 130 prior to 141 (See advisor for alternate schedule). Mathematics 130 will not count as part of the required hours for graduation.

³ Select from the appropriate cluster in the College of Engineering listing of General Education Electives. In some instances a single course may meet requirements of more than one cluster. When this occurs, a course from another cluster may be used to meet the total hour requirement. These electives must be approved in advance by advisor to insure that they meet university and ABET criteria.

⁴ Select from CE 390 Hydraulics or ES 341 Fluid Mechanics.

⁵ Typically upper division courses in engineering or related areas. Must be approved in advance by advisor.

BIOSYSTEMS ENGINEERING: CONCENTRATION IN FOOD ENGINEERING

The concentration in Food Engineering emphasizes topics relevant to understanding and engineering food and bioprocessing operations. Students graduating with this emphasis are qualified for engineering positions in a variety of food and other biobased industries.

Freshman

Engineering Fundamentals 101, 102	12
Biosystems Engineering 104	1
¹ Chemistry 120	4
¹ English 101, 102	6
^{1,2} Mathematics 141, 142	8
³ General Education Elective (Contemporary Issues Cluster)	3

Sophomore

Biosystems Engineering 201, 221, 321	7
Engineering Science 231, 321	6
Nuclear Engineering 203	3
Economics 201	4
¹ Chemistry 130	4
Mathematics 200, 231, 241	8
Microbiology 210	3

Junior

Biosystems Engineering 451	4
Electrical and Computer Engineering 301	3

⁴ Fluid Science Elective	3
Food Science and Technology 310, 320, 329, 340	12
³ General Education Electives (Humanities or Arts Cluster)	6
Speech 210 or 240	3

Senior

Biosystems Engineering 401, 402, 411, 431	15
English 360	3
³ General Education Elective (Engineering Practice in Global Societal Context Cluster)	3
Industrial Engineering 405	3
³ General Education Elective (Multicultural Studies Cluster)	3
Food Science and Technology 495	3
Total	130 hours

¹ Or equivalent honors course.

² If mathematics placement test does not indicated placement into Math 141, please discuss mathematics options with advisor.

³ Select from the appropriate cluster in the College of Engineering listing of General Education Electives. In some instances a single course may meet requirements of more than one cluster. When this occurs, a course from another cluster may be used to meet the total hour requirement. These electives must be approved in advance by advisor to insure that they meet university and ABET criteria.

⁴ Select from CE 390 Hydraulics or ES 341 Fluid Mechanics.

BIOSYSTEMS ENGINEERING TECHNOLOGY

Advisors:

Professors Freeland, Hart, Wilhelm, Wilkerson, Womac, D. Yoder.

No baccalaureate degree program is offered in biosystems engineering technology; however, seven undergraduate courses are offered to prepare students in other disciplines to apply elementary principles, techniques, and systems of engineering to the broad industry of agriculture.

A Minor in Biosystems Engineering Technology requires a minimum of 18 semester hours as follows: Biosystems Engineering Technology 202 or 212, 326, and 432, and three of the six courses 414, 422, 442, 452, 462 or 474.

A program leading to the Master of Science degree with a major in biosystems engineering technology is available (see the Graduate Catalog). The graduate program is open to qualifying BS graduates from other disciplines. Academic records of applicants will be reviewed by the departmental graduate committee to determine if prerequisite courses are required to meet program requirements.

ENVIRONMENTAL AND SOIL SCIENCES

Advisors: Essington, Lee, Logan, D. Yoder.

Many human activities adversely impact soil, water and environmental quality. The Bachelor of Science degree in Environmental and Soil Sciences provides students with a strong grounding in basic sciences and technology to prepare them for careers in environmental and natural resource management. Students in this program study basic natural sciences as well as applied areas such as ecology, soil sciences, and natural resource policy. Students also build expertise with modern technologies such as geographical information systems, global positioning systems, and computer applications in natural resource management. Graduates are prepared to work in a wide variety of interesting and challenging career paths and to work with a broad variety of other professionals to solve complex problems. Examples of potential careers include: soil and environmental special-

ists and scientists; state and federal regulatory agency work; private consulting in environmental and agricultural areas; and working with non-governmental organizations with interests in agriculture, environment and natural resources. Students receiving this BS degree are also very competitive for placement in graduate programs in environmental and agricultural sciences and technology, as well as law school.

The core program provides a strong grounding in the sciences and technology, while concentrations within the BS degree permit a focus on either science or technology. There are two concentrations in this degree program, Soil Environmental Science and Environmental Science . These concentrations are described below.

A minor in Environmental and Soil Sciences consists of 19 credit hours including ESS 210 and 324, BSET 326, and at least 9 elective hours in ESS and/or BSET courses at the 300 level or higher.

ENVIRONMENTAL AND SOIL SCIENCES: CONCENTRATION IN SOIL SCIENCE

This concentration is a rigorous, science-based program for students interested in the field of environmental sciences. The curriculum emphasizes soils and their long-term use and productivity, as well as surface and sub-surface water resources. Students will understand natural resource problems and their management, including soil and water conservation issues, land use problems, waste disposal, and reclamation of disturbed lands. Other areas of interest can be addressed through the appropriate selection of technical electives in the program. Students in this program will gain the practical knowledge necessary to compete for career opportunities in government, environmental consulting firms, public health services, environmental research laboratories, and agricultural production, while also gaining the theoretical training necessary for continuing on for advanced degrees in a number of environmentally related fields.

Freshman

Botany 110, 120 or Biology 130, 140	8
Chemistry 120, 130	8
English 101, 102	6
Environmental and Soil Sciences 110	1
Mathematics 151, 152	6
¹ Arts and Humanities elective	3

Sophomore

Agriculture and Natural Resources 290	3
Chemistry 350	3
Economics 201 4	
Environmental and Soil Sciences 210	4
Geology 101	4
Microbiology 210	3
Physics 221	4
Statistics 201	3
Speech 210 or 240	3

Junior

Botany 321	3
Chemistry 310 and 319	4
Environmental and Soil Sciences 301, 324	4
Environmental and Soil Sciences 334 or 355	3
Biosystems Engineering Technology 326	3
Philosophy 346 3	
¹ Cultures and Civilizations electives	6
¹ Technical electives	3
English 295 or 360 or Journalism 450 or 451	3

Senior

Agricultural Economics 470 or Economics 462 or Sociology 360	3
Environmental and Soil Sciences 434, 442, 444, 462, 481	15
¹ Technical electives	9

Unrestricted electives	6
Total	128 hours

¹Consult the list of approved electives for these courses. If you wish to take a course not on the list, consult your advisor first.

ENVIRONMENTAL AND SOIL SCIENCES: CONCENTRATION IN ENVIRONMENTAL SCIENCE

The Environmental Science concentration is a blended program of science and technology that provides a strong, broad background in the natural sciences. The plan of study emphasizes human impacts on the long-term use and productivity of land and water resources. Emphasis is also placed on the tools used in the management of these resources. The curriculum provides a good foundation in the collection and analysis of the information required to characterize resource conservation problems and to make good resource use decisions. Directed technical electives allow the students to concentrate in an area of interest. Students in this program will gain the practical knowledge necessary to compete for career opportunities in government, environmental consulting firms, public health services, environmental research laboratories, and agricultural production, while also gaining the theoretical training necessary for continuing on for advanced degrees in a variety of environmentally related fields.

Freshman

Biology 130, 140	8
Chemistry 120, 130	8
English 101, 102	6
Environmental and Soil Sciences 110	1
Mathematics 151, 152	6
¹ Arts and Humanities elective	3

Sophomore

Agriculture and Natural Resources 290	3
Biology 250	4
Biosystems Engineering 212	3
Economics 201 4	4
Environmental and Soil Sciences 210	4
Geology 101	4
Microbiology 210	3
Physics 221	4
Statistics 201	3

Junior

Chemistry 350	3
Environmental and Soil Sciences 301, 324, 355	7
Biosystems Engineering Technology 326	3
English 360	3
¹ Culture and Civilizations electives	6
Speech 210 or 240	3
¹ Technical electives	9

Senior

Agricultural Economics 470 or Economics 462 or Sociology 360	3
Environmental and Soil Science 434, 462, 481	9
Biosystems Engineering Technology 414, 474	6
Ecology and Evolutionary Biology 470	3
Industrial Engineering 405	3
Philosophy 346	3
¹ Technical Electives	6
Total	131 hours

¹Consult the list of approved electives for these courses. If you wish to take a course not on the list, consult your advisor first.

EFFECTIVE DATE: Fall 2002 for all Department of Biosystems Engineering and Environmental Science changes

ADD this list of electives for the BS in ESS to the catalog following the showcases:

ELECTIVE LIST FOR ALL CONCENTRATIONS, BS DEGREE IN ENVIRONMENTAL AND SOIL SCIENCES

Arts and Humanities Electives:

Any course listed under the College of Arts and Sciences Humanities requirements (Part A., section 3, Lists A, B, and C of Divisional Distribution Requirements)

Art (all courses of instruction - art, ceramics, design/graphic, drawing, education, history, media arts, painting, printmaking, sculpture)

Asian Studies 101, 102

Classics (all courses)

Dance (all courses)

Music (all courses of instruction - education, ensemble, general, history, instrument, jazz, keyboard, performance, technology, theory)

Philosophy 120, 130, 135

Religious Studies (all courses)

Theatre (all courses)

Women's Studies 210, 215, 320, 330, 332, 382, 383, 422, 433, 483

Cultures and Civilizations Electives:

Any 2 sequence course in language at the intermediate level satisfies this requirement, e.g., Spanish 211-212, German 201-202, etc.

Anthropology 120, 130

History (all courses)

Any course listed under the College of Arts and Sciences Non-US History requirements (Part A., section 4 of Divisional Distribution Requirements) or any courses listed under the College of Arts and Sciences Upper Level Distribution Requirements – List A or List B.

Technical Electives:

Note that some electives have required electives. You must satisfy prerequisites prior to taking those classes. Those prerequisites are either required in the major or are listed below – see individual course descriptions in the catalog for specific prerequisite information.

Agriculture and Natural Resources 333

Animal Science 220, 260, 280, 320, 330, 380, 381

Biochemistry and Cellular and Molecular Biology 310, 401, 402, 410, 471, 481

Biology 240, 250

Biosystems Engineering Technology (any course not required for the major)

Botany 305, 306, 310, 321, 330, 404, 412, 431, 451, 499

Chemistry 230, 310, 319, 320, 329, 350, 360, 369, 430, 439, 471, 481

Ecology and Evolutionary Biology 240, 305, 370, 380, 431, 470, 474, 484

Entomology and Plant Pathology 313, 321

Environmental and Soil Sciences (any course not required for the major)

Food Science and Technology 420-429
Forestry 314, 315, 321
Forestry, Wildlife and Fisheries 250, 311, 312, 313, 317, 410, 412
Geography 101-102, 131-132, 310, 334, 410, 411, 412, 413, 415, 434, 436, 439
Geology 102, 103, 201, 202, 310, 345, 370, 420, 450, 455, 485, 486
History 346
Integrated Plant Systems 230, 334, 340, 431, 433, 434, 435, 440, 453
Management 301, 321, 431
Microbiology 310, 319, 410, 411, 470
Physics 222
Political Science 300, 330, 340, 430, 431, 440, 442, 470
Public Health 310
Sociology 360, 462, 464, 465
Statistics (any course above 201)
University Studies 322
Urban and Regional Planning 401, 401

PLANT SCIENCES AND LANDSCAPE SYSTEMS

Because of massive faculty, catalog text, and curricula changes, the entire content of the former Department of Ornamental Horticulture and Landscape Design (pages 46 through 48) and the content of the former Department of Plant and Soil Sciences (pages 49 through 50) material should be replaced with the material for the new Department of Plant Sciences and Landscape Systems as presented on the following pages. Changes include:

- combining the faculty lists for all plant science faculty from the two former departments
- changes in text to reflect movement of the PSS major and the PSS-Environmental Sciences concentration to Biosystems Engineering and Environmental Science
- combining the Ornamental Horticulture major and the Plant and Soil Sciences major (combining concentrations two PSS and OHLD concentrations, establish new concentration, retaining two concentrations) into new Plant Sciences and Landscape Systems major .

On the pages 46 through 50 of the 2001-2002 Undergraduate Catalog, REVISE as follows:

Plant Sciences and Landscape Systems

Professors:

G.N. Rhodes (Interim Head), Ph.D. North Carolina State; M.L. Albrecht (Assoc. Dean, College of Agricultural Sciences and Natural Resources), Ph.D. Ohio State; F.L. Allen, Ph.D. Minnesota; E.L. Ashburn, Ph.D. Tennessee (Emeritus); R.M. Augé, Ph.D. Washington State; B.V. Conger, Ph.D. Washington State; G.D. Crater (Emeritus) Ph.D. Ohio State; L.M. Callahan (Emeritus), Ph.D. Rutgers; D.L. Coffey, Ph.D. Purdue; D.E. Deyton, Ph.D. North Carolina State; W.T. Flinchum (Emeritus), Ph.D. North Carolina State; H.A. Fribourg (Emeritus), Ph.D. Iowa State; E.T. Graham (Emeritus), Ph.D. Pennsylvania State; C.R. Graves (Emeritus), M.S. Tennessee; R.M. Hayes, Ph.D. Illinois; D.W. Lockwood, Ph.D. Purdue; G.L. McDaniel, Ph.D. Iowa State; J.H. Reynolds (Emeritus), Ph.D. Wisconsin; A.D. Rutledge (Emeritus), Ph.D. Tennessee; T.J. Samples, Ph.D., Oklahoma State; C.E. Sams, Ph.D. Michigan State; D.W. Sams (Emeritus), Ph.D. Minnesota; P.P. Shelby (Emeritus), M.S. Tennessee; R.N. Trigiano, Ph.D. North Carolina State; D.R. West, Ph.D. Nebraska; D.B. Williams (Emeritus), Ph.D. Pennsylvania State.

Associate Professors:

G.E. Bates, Ph.D. Georgia; Z.-M. (Max) Cheng, Ph.D. Cornell; C.O. Gwathmay, Ph.D. U.C. Davis; W.A. Krueger (Emeritus), Ph.D. Illinois; S.L. Hamilton, Ed.D. Tennessee; G. L. Menendez, M.S. Tennessee; T.C. Mueller, Ph.D. Georgia; D.K. Robinson, Ph.D. North Carolina State; S.M. Rogers, M.L.A. Georgia; J.E. Wyatt, Ph.D. Florida.

Assistant Professors:

S. Garton, Ph.D. Minnesota; W. E. Klingeman, Ph.D. Georgia; G.D. Morgan, Ph.D. Wisconsin; V.R. Pantalone, Ph.D. North Carolina State; A.R. Straw, Ph.D. Tennessee.

Advisors: Coffey, Hamilton, McDaniel, Menendez, Rogers, and Sams.

The Department of Plant Sciences and Landscape Systems (PSLS) of the University of Tennessee provides quality academic instruction to undergraduate and graduate students. Experienced instructors who are committed to the success of their students staff the department. Advisors give students sound advice in the selection of career specialties, elective courses, and provide students the best education possible. Professors want their students to be successful and enjoy positive student-teacher relationships. They keep track of job openings and assist students during the job selection process. Since most PSLS teachers are also research scientists, undergraduate students interested in advanced studies are directed into appropriate courses necessary for admission to graduate school. Students are also encouraged to work with faculty researchers in a variety of laboratory, greenhouse, or field experiments.

The department offers a major leading to a Bachelor of Science degree in Plant Sciences and Landscape Systems five concentrations: Business Management, Horticulture and Agronomy, Landscape Design, Public Horticulture, and Turfgrass Management.

Each concentration offers a different approach to address the breadth of opportunities available to PSLS undergraduate students. A minimum of 124 credit hours including internship is required for each concentration. Full-time summer internships are available at selected local, regional, and national companies or institutions. Part-time summer or semester internships are available from PSLS, other university departments and laboratories and local commercial firms. For more information about undergraduate and other departmental programs, please contact our web site at: <http://ohld.ag.utk.edu/psls/>

CAREER SPECIALITIES

Students in the Landscape Design and the Public Horticulture concentrations have various career paths open to them. Opportunities exist within landscape construction and maintenance (installation and maintenance of residential and commercial landscapes), landscape design (creation of aesthetic concepts and practical plans for improved outdoor areas), and public horticulture (the promotion of horticulture to enhance people's education and enjoyment of plants). Students select courses to meet the challenges of the different areas of ornamental horticulture by working closely with their academic advisers. Internships at various horticultural enterprises provide students the opportunity to put theory into practice and screen possible job options.

Positions that graduates hold are numerous and include the following: owners, supervisors and employees of landscape construction; design and/or maintenance businesses for residential, recreational and commercial properties; owners, designers, salespersons or managers with interiorscape firms; directors, curators, public relations managers, education program director, high school or college teachers and employees of botanic gardens and arboreta; federal, state, county, city and municipal horticulturists; county extension workers in horticulture; estate manager; arborists and employees of tree care firms; and garden writers. A percentage of undergraduate students go on to graduate studies.

The Business Management and Turfgrass Management concentrations reflect the various other career paths open to graduates. Opportunities exist within floriculture (the field of growing and marketing flowers and plants), turfgrass management (growing and managing turfgrasses used for golf courses, parks, athletic fields, and residential and commercial lawns), wholesale nursery production (the production of trees, shrubs and other woody ornamental plants used by the landscape industry or sold through retail outlets), retail horticulture (the marketing; merchandising and sale of vegetables, fruit, or ornamental plants and gardening accessories directed to the consumer), and agronomic crops production and consulting.

Positions that graduates hold are numerous and include the following: owner, manager, salesperson or employee of garden centers, farm supply, or other retail outlets; golf course superintendents and assistant superintendents; sales positions with turfgrass equipment firms, supply firms, chemical companies and seed companies; owners, supervisors or growers of turfgrass sod, nursery or floral crop operations, and agronomic and field-produced horticultural crops.

The Horticulture and Agronomy concentration provides a solid background in science while preparing students to apply this knowledge. The graduate must have knowledge of the basic chemical, physical and biological sciences and be educated in communication and computer skills. The student may be broadly trained or may

specialize in a specific phase of the subject. This concentration is especially designed to qualify students for professional certification and to prepare students for graduate study. Through the appropriate selection of major course and technical electives, students can qualify for certification as a crop scientist, agronomist, or horticulturist. Students can also prepare themselves for graduate study in crop ecology and physiology, crop breeding and genetics, and weed science. Careful selection of departmental courses and related courses as well as electives in consultation with the student's academic adviser will prepare graduates for a career of their choice in the Plant Science area, whether it be Agronomic or Horticultural in nature.

A minor in Integrated Plant Systems shall consist of 18 hours of courses in Plant Sciences and Landscape Systems including IPS 230, IPS 334, and a minimum of 12 credit hours at the upper division. Prerequisites, if any, to these courses will not be waived, but must be included in addition to the total of 18 hours. PSLS 471 will not be accepted as a course to meet minor requirements.

A minor in Ornamental Horticulture and Landscape Design shall consist of 18 hours of courses in Ornamental Horticulture and Landscape Design: OHLD 110, Introduction to Ornamental Horticulture and one additional lower division course, and a minimum of 12 credit hours at the upper division. Prerequisites, if any, to these courses will not be waived, but must be included in addition to the total of 18 hours.

ENROLLMENT MANAGEMENT PLAN

All majors in the Department of Plant Sciences and Landscape Systems must meet certain minimum requirements before registering for upper division PSLS, OHLD, or IPS classes. Admittance to each of the departmental concentrations will be determined by completion of core courses with a "C" or better for an individual concentration, completion of a minimum of 65 credit hours toward the degree, and a minimum cumulative grade point average (GPA) of 2.25.

To be considered for progression into the upper division of the program, majors must submit an application of intent for progression prior to class registration for the next semester. Their transcript will be reviewed by faculty members for completion of all core courses and meeting the minimum GPA. Students must have completed all but 3 core courses for their concentration by the end of the semester in which they apply for acceptance into upper division courses. They must complete all core courses before entering upper division courses. They will also need the prerequisites to these individual upper division courses.

Once admitted for progression to upper division programs, students must maintain a cumulative GPA of 2.25. Junior and senior majors in PSLS whose cumulative GPA falls below the minimum of 2.25 will not be allowed to register in departmental upper division classes until they again meet the required GPA for progression. This enrollment management plan becomes effective for all students enrolling in PSLS on or after Fall semester 2001

CORE COURSES

Majors must have completed the core courses for their respective PSLS concentration. Students must declare a concentration early in their undergraduate program and strictly follow the curriculum described for it. Students who transfer into PSLS from other colleges or programs must meet the same requirements as those entering the department as freshmen. The core courses for the PSLS concentrations are:

Business Management Concentration: two courses in English composition (English 101 and 102 or equivalent); college algebra and calculus (Math 119 and 125 or equivalent); general chemistry (Chemistry 100-110 or 120-130 or equivalent); general botany (Botany 110 and 120 or equivalent); general accounting (Accounting 201 and 202 or equivalent); soil science (ESS 210 or equivalent).

Horticulture and Agronomy Concentration: two courses in English composition (English 101 and 102 or equivalent); college algebra and either precalculus or calculus (Math 119 and 125 or 130) or completion of Math 151 and 152 or equivalent; general chemistry (Chemistry 100-110 or 120-130 or equivalent); general botany (Botany 110 and 120 or equivalent); soil science (ESS 210 or equivalent); crop science (IPS 230 or equivalent).

Landscape Design: two courses in English composition (English 101 and 102 or equivalent); college algebra and finite math or calculus (Math 119 and 123 or 125 or equivalent); general chemistry (Chemistry 100 or 120 or equivalent) and one natural science elective; general botany (Botany 110 and 120 or equivalent); soil science (ESS 210 or equivalent); basic landscape plants (OHLD 220 or equivalent); landscape design (OHLD 280 or equivalent).

Public Horticulture Concentration: two courses in English composition (English 101 and 102 or equivalent); college algebra and finite math or calculus (Math 119 and 123 or 125 or equivalent); general chemistry (Chemistry 100 or 120 or equivalent) and one natural science elective; general botany (Botany 110 and 120 or

equivalent); soil science (ESS 210 or equivalent); general ecology (Biology 250 or equivalent); basic landscape plants (OHLD 220 or equivalent).

Turfgrass Management Concentration: two courses in English composition (English 101 and 102 or equivalent); college algebra and finite math or calculus (Math 119 and 123 or 125 or equivalent); general chemistry (Chemistry 100-110 or 120-130 or equivalent); general botany (Botany 110 and 120 or equivalent); soil science (ESS 210 or equivalent); basic landscape plants (OHLD 220 or equivalent); microcomputer applications (ANR 290 or equivalent).

PLANT SCIENCES AND LANDSCAPE SYSTEMS

BUSINESS MANAGEMENT CONCENTRATION

The Business Management Concentration is fundamental to those interested in starting their own companies. Students receive a **minor in either Business Administration or Agricultural Economics and Business** allowing easier access to management positions as well as graduate programs such as the Masters of Business Administration (MBA) should they want to continue their education in the future.

Freshman	Hours Credit
Botany 110-120	8
Chemistry 100-110 or 120-130	8
English 101-102	6
Math 119 and 125	6
OHLD 110 or IPS 230	3
¹ Humanities Elective	3
Sophomore	
Select 2 from OHLD 220, 230, 231, or 280	5-6
Agriculture and Natural Resources 290	3
Accounting 201-202	5
Economics 201	4
Environmental and Soil Sciences 210	4
Speech 210 or 240	3
Select Statistics 201 for Business Minor or Agricultural Economics 212 for Agricultural Economics Minor ..	3
¹ History Elective	3
Junior	
Select 3 from OHLD 326, 330, 350, 360, 370, 380, 390, 391, IPS 334, or 340	8-9
PSLS 492	3
Select Business Administration 201 and Management 300 for Business Minor or Agricultural Economics 342 and 350 for Agricultural Economics Minor	6-7
Select 2 from Technical Electives	6
¹ History Elective	3
¹ Humanities Elective	3
Senior	
Select 3 from OHLD 410, 421, 429, 430, 434, 436, 446, 450, 451, 460, 480, 485, 494, IPS 431, 433, 434, 435, 440, PSLS 471, 493	5-13
PSLS 490	1
Select Finance 301 and Marketing 300 for Business Minor or Agricultural Economics 412 and an Agricultural Economics elective for Agricultural Economics Minor	6
Writing Elective	3
¹ Social Science Elective	3
Unrestricted Electives	3-11
Total:	124

¹Lists of appropriate electives are available and should be selected in conference with academic advisor.

HORTICULTURE AND AGRONOMY CONCENTRATION

The Horticulture and Agronomy Concentration is designed for the student desiring to pursue professions that include graduate studies, research and commercial production of agronomic and horticultural crops. Careful selection of departmental courses and other electives in consultation with your academic adviser will prepare graduates for the career of their choice. The concentration consists of two tracks of study: (1) Emphasis in agronomy and (2) Emphasis in horticulture.

Freshman	Hours Credit
Botany 110-120.....	8
Chemistry 100-110 or 120-130	8
English 101-102.....	6
Math 119 and (125 or 130) or Math 151-152 for agronomy track or Math 119 and (123 or 125) for horticulture track	6
Select IPS 230 for agronomy track or OHLD 110 for horticulture track	3
 Sophomore	
Select Microbiology 210 and Biology 240 for agronomy track or select 1 from OHLD 220, 230, 231, or 280 and select 1 from Microbiology 210 or Biology 240 for horticulture track	6
Agriculture and Natural Resources 290	3
Writing Elective	3
¹ Humanities Elective	3
¹ Social Science Elective	3
Environmental and Soil Sciences 210.....	4
Speech 210 or 240	3
Economics 201	4
¹ History Elective	3
 Junior	
OHLD 330	3
Select IPS 334 for agronomy track or select OHLD 370 for horticulture track	3
Select 2 from OHLD 370, 390, 391, or IPS 340 for agronomy track or select 2 from OHLD 350, 360, 390, 391, IPS 334 or 340 for horticulture track	6
PSLS 492	3
Environmental and Soil Sciences 334.....	3
Select Environmental and Soil Sciences 462 for agronomy track or select Botany 330 for horticulture track	3
Entomology and Plant Pathology 313, 321, or 410	3
Technical Elective	3-4
¹ History Elective	3
 Senior	
PSLS 471	3
PSLS 490	1
Botany 321	4
Chemistry 350	4
Technical Elective	3-4
Select IPS 431, 434, 435, and 453 for agronomy track or select 4 from OHLD 410, 430, 451, IPS 431, 433, 434, 440 or 453 for horticulture track	12
¹ Humanities Elective	3
Total:	124

¹Lists of appropriate electives are available and should be selected in conference with academic advisor.

LANDSCAPE DESIGN CONCENTRATION

Landscape designers create aesthetic concepts and practical plans for improved outdoor living. **OHLD** Students study fundamental and advanced landscape design, landscape design graphics, computer aided landscape design, surveying, art, socio-economic impact of plants, field botany, professional practices, basic woody plant identification, landscape construction and maintenance methods. The development of comprehensive design projects helps students prepare for careers in landscape design or advanced studies in landscape architecture. Graduates in design have access to a large segment of the **OHLD** ornamental horticulture commodity areas of employment.

Freshman	Hours Credit
Botany 110-120	8
Chemistry 100 or 120	4
English 101-102	6
Math 119 and (123 or 125)	6
OHLD 110	3
¹ Social Science Elective	3
 Sophomore	
OHLD 220, 280	6
Agriculture and Natural Resources 290	3
¹ Natural Science Elective	4
Environmental/Technical Elective	3
Environmental and Soil Sciences 210	4
Speech 210 or 240	3
¹ Humanities Elective	3
Unrestricted Electives	6
 Junior	
OHLD 350, 380	6
Select 2 from OHLD 225, 230, 231, 330, 370, IPS 334, or 340	5-6
Select 1 from OHLD 390 or 391	3
Environmental/Technical Elective	3
Writing Elective	3
¹ Cultural and Civilizations Elective	3
¹ Social Science Elective	3
Unrestricted Elective	4-5
 Senior	
OHLD 460, 480, 485	9
Select 2 from OHLD 410, 427, 430, 434, 446, 450, 494, IPS 440 or PSLs 493	6
PSLS 490, 492	4
Botany 330 or OHLD 421	3
Environmental/Technical Elective	3
¹ History Elective	3
¹ Humanities Elective	3
 Total:	 124

¹ Lists of appropriate electives are available and should be selected in conference with academic advisor.

PUBLIC HORTICULTURE CONCENTRATION

The public horticulture concentration is intended for students interested in professional careers which promote horticulture and emphasize people and their education and enjoyment of plants. Such careers include director of a botanical garden or park; city or urban horticulturist; extension agent, teacher, educational director, or program coordinator; professional garden writer/editor or publication manager; horticulture therapist; public garden curator; and plant collections manager. Directed technical electives allow the student to concentrate in an area of their interest while encouraging the development of good people skills. Students are required internship training in the area of their interest.

Freshman	Hours Credit
Botany 110-120	8
Chemistry 100 or 120	4
English 101-102	6
Math 119 and (123 or 125)	6
OHLD 110	3
¹ Natural Science Elective	4
 Sophomore	
Select 2 from OHLD 220, 225, 230, 231 or 280	5-6
Agriculture and Natural Resources 290	3
Select 1 from Educational Psychology 210; Public Relations 270; Recreational and Tourism Management 201; Forestry Wildlife and Fisheries 211, or 250	3
¹ Social Science Elective	3-4
Environmental and Soil Sciences 210	4
Speech 210 or 240	3
¹ Humanities Elective	3
¹ Cultural and Civilizations Elective	3
 Junior	
Select 4 from OHLD 330, 350, 360, 370, 380, 390, 391, IPS 334 or 340	11-12
OHLD 326	3
Select 1 from Philosophy 342, Agriculture and Extension Education 346, or Journalism 310	3
Select 2 from Botany 309, 330; Entomology and Plant Pathology 313, 321, 410	6
Select 2 from Technical Electives	6
 Senior	
Select 4 from OHLD 410, 421, 427, 429, 430,434, 436, 446, 450, 451, 460, 480,485, 494, IPS 431, 433, 434, 435, 440,or PSLs 493	8-12
PSLS 490	1
PSLS 492	3
¹ Social Science Elective	3
Writing Elective	3
¹ Cultural and Civilizations Elective	3
Select 2 from Technical Electives	6
 Total:	 124

¹Lists of appropriate electives are available and should be selected in conference with academic advisor.

TURFGRASS MANAGEMENT CONCENTRATION

The Turfgrass Management Concentration is designed for the student desiring to pursue professions that include growing and managing turfgrasses used for golf courses, parks, athletic fields, sports complexes, and residential and commercial lawns. Careful selection of departmental courses and other electives in consultation with your academic adviser will prepare graduates for the career of their choice.

	Hours Credit
Freshman	
Botany 110-120	8
Chemistry 100-110 or 120-130	8
English 101-102	6
Math 119 and (123 or 125)	6
OHLD 110 or IPS 230	3
¹ Social Science Elective	3
Sophomore	
Select 1 from OHLD 220, 225, 230, 231, or 280	2-3
Agriculture and Natural Resources 290	3
Writing Elective	3
¹ Humanities Elective	3
¹ Social Science Elective	4
Environmental and Soil Sciences 210	4
Speech 210 or 240	3
¹ History Elective	3
Unrestricted Elective	3
Junior	
IPS 340	3
OHLD 370	3
IPS 334	3
Select 3 from OHLD 330, 350, 360, 390, or 391	8-9
PSLS 492	3
Select 2 from Technical Electives	6
¹ History Elective	3
Senior	
Select 4 from OHLD 410, 421, 430, 450, 451, 460, 494; IPS 431, 433,434, 435, 453, PSLS 471, 493	5-12
IPS 440	4
PSLS 490	1
Select 2 from Technical Electives	6
Botany 321	4
¹ Humanities Elective	3
Unrestricted Electives	2-9
 Total:	 124

¹ Lists of appropriate electives are available and should be selected in conference with academic advisor.

**ADDITIONAL ELECTIVE LIST:
 BUSINESS MANAGEMENT CONCENTRATION**

Technical Electives:

- Biosystems Engineering Tech. 202, 212, 452, 462
- Environmental and Soil Sciences 324, 334, 462
- Entomology and Plant Pathology 313, 321, 410

HORTICULTURE AND AGRONOMY CONCENTRATION

Technical Electives: Agronomy Tract

Agricultural Economics Elective
Biosystems Engineering Tech. 212, 452, 462
Botany 310, 330
Environmental and Soil Sciences 324, 355, 434, 442, 444
Forestry, Wildlife, and Fisheries 250

Technical Electives: Horticulture Tract

Agricultural Economics Elective
Biosystems Engineering Tech. 212, 452, 462
Botany 310, 412, 431, 451
Forestry, Wildlife, and Fisheries 250

LANDSCAPE DESIGN CONCENTRATION

Environmental/Technical Electives:

Architecture 111, 180, 211, 232, 421
Art 101, 103, 191, 295
Art Drawing 211, 212
Biology 250
Biosystems Engineering Technology 202, 212
Botany 305, 306, 330, 431
Entomology and Plant Pathology 306, 313, 321, 410
Environmental and Soil Sciences 324, 334
Forestry, Wildlife, and Fisheries 211, 250
Geology 201, 202
Geography 310, 439
Urban and Regional Planning 401, 402

PUBLIC HORTICULTURE CONCENTRATION

Technical Electives:

Accounting 415
Art 481
Botany 431
Educational Psychology 210
Forestry 423
Interior Design 200
Philosophy 342
Environmental & Soil Sciences 413, 414, 415
Public Health 410
Public Relations 470
Recreation and Tourism Mgt. 410, 430
Speech 440

PUBLIC HORTICULTURE AND LANDSCAPE DESIGN CONCENTRATIONS

Natural Science Electives:

Chemistry 110, 130
Geography 131
Geology 101, 103

TURFGRASS MANAGEMENT CONCENTRATION

Technical Electives:

Agricultural Economics elective (3)
Biosystems Engineering Tech. 202, 212, 452, 462
Environmental and Soil Sciences 310, 311, 315, 432
Entomology and Plant Pathology 313, 321, 410

THE UNIVERSITY OF TENNESSEE



School of Architecture

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MEMORANDUM

December 17, 2001

To: Undergraduate Council

From: Marleen Kay Davis, Dean

A handwritten signature in black ink, appearing to read "Marleen Kay Davis".

Subject: 2002-2003 Curriculum Changes for College of Architecture & Design

The following changes were approved by the faculty of College of Architecture and Design and are submitted for your consideration and approval.

Architecture

1. Revise the model curriculum shown in the catalog as follows:
(changes indicated in boldface)

	Hours	Credit
First Year		
Architecture 101, 102		5
Architecture 121, 122		4
Architecture 171, 172		7
Architecture 211		3
English 101, 102		6
Mathematics 125 or Elective		3
Electives		6
Second Year		
Architecture 212, 213		6
Architecture 231		3
Architecture 232		3
Architecture 271, 272		12
Physics 101, 135, 137, or 161		3
Electives		9
Third Year		
Architecture 312		3
Architecture 331, 332		8
Architecture 341, 342		8
Architecture 371, 372		12
Electives		3

The above revised sequence involves these changes:

Move one elective (3 hours credit) from the second semester of first year to the first semester of third year.

Move the architectural history sequence (ARCH 211, 212, and 213) back one semester to start in the second semester of first year and conclude in the second semester of second year.

2. Revise the course description for 180 Introduction to Architecture (2)

From: Introduction of the fundamentals of construction, materials and statics in a lecture/seminar format

To: Introduction to architecture as an intellectual discipline. Design as a creative endeavor central to the discipline and its profession.

3. Revise the course number and description:

From: 215 Architectural History/Theory I (3) Introduction to architectural form, ideas and traditions in a lecture/discussion format. Prereq: M.Arch. Admission

To: 401 Architectural History/Theory I (3) Survey of architectural history and theory from earliest beginnings to about 1600 CE in Europe, Asia, and the Americas. Examination of theoretical ideas, building forms, and urban patterns in cultural and historical context. Prereq: M.Arch admission or consent of instructor. F

4. Revise course number and description:

From: 216 Architecture/History/Theory II (3) Exploration of the ideas and forms of architecture in a lecture/discussion format. Prereq: M.Arch Admission.

To: 402 Architectural History/Theory II (3) Survey of architectural history and theory from about 1600 CE through the present day. Examination of theoretical ideas, building forms, and urban patterns in cultural and historical context. Prereq: 401, and M.Arch admission or consent of instructor. Open undergraduates with consent of instructor. Sp

5. Revise course title and description:

From: 480 Comprehensive Design Project I (3) Project selection and preparation for Architecture 482. Formation and documentation of hypotheses. Preparation of background and program information. Goals and concepts set forth. To be taken semester immediately preceding 482. F

To: 480 Preparation and Programming for Projects. (3) Formation of project statement, documentation and analysis of project data. Preparation of background and program information. Goals and concepts set forth. To be taken the semester preceding 482.

6. Revise course title and description:

From: 482 Comprehensive Design Project II (6) Student selected project under faculty direction. Exploration of design hypothesis which informs the character of a substantial building design. (See Architecture 480.) Completed project will address all issues of environment, structure, enclosure, use, and ethical consideration of design appropriateness. Design is expected to stand up to rigorous scrutiny regarding strength of idea, economy of means, durability, validity for stipulated use, quality of cultural expression, and character of setting. Prereq: 480 and satisfactory completion of all design courses. Sp

To: 482 Self-directed Design Project. (6) Student-selected project under faculty direction. Exploration of design hypothesis that informs the character of a substantial building design. Completed project will address issues of environment, structure, enclosure, use and ethical consideration of design appropriateness. Design is expected to stand up to rigorous scrutiny regarding strength of idea, economy of means, durability, validity for stipulated use, quality of cultural expression, and character of setting. Prereq: 480, satisfactory completion of a self-directed project proposal and program for that project, and satisfactory completion of all design courses.

7. Add to catalog copy in final paragraph under "Curriculum" the following sentences:

As part of the degree requirement, all architecture students are required to complete at least one term (6 credit hours) of an off-campus academic program. Students may avail themselves of the School of Architecture's numerous programs, or, in consultation with the student's advisor and approval of the Academic Standards Committee, a student may participate in a program offered by another institution of higher learning. Students are encouraged to participate in programs where courses will satisfy existing degree requirements. Students may petition the Academic Standards Committee to have this requirement waived.

THE UNIVERSITY OF TENNESSEE
KNOXVILLE



College of Arts and Sciences
Office of the Dean
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TO: Linda Tober, Undergraduate Council

FROM:  Don Cox, Associate Dean for Academic Programs

DATE: December 12, 2001

The attached curricular proposals have been approved by the faculty of the College of Arts and Sciences and are submitted to the Undergraduate Council for consideration. The following is a summary of these proposals:

One course has been added to Divisional Distribution requirements, three have been dropped from Divisional Distribution requirements, one has been added to Upper Level Distribution requirements, and two have been dropped from Upper Level Distribution requirements.

The Pre-MBA Program is being dropped. The College of Business Administration has already eliminated the program.

- 1) **Audiology and Speech Pathology** – Revise the description of the major, change title of two courses, revise title and description of one, revise title and prerequisite of one, revise prerequisites of three, and completely revise one course.
- 2) **Biochemistry and Cellular and Molecular Biology** – Revise credit hours for one course.
- 3) **Botany** – Add a cross listing.
- 4) **Chemistry** – Revise the description of the major, revise footnote in the B.S. in Chemistry description, and add one course.
- 5) **Classics** – Add and cross list one course and add one cross listing.
- 6) **Ecology and Evolutionary Biology** – Revise prerequisites for four courses, and add and cross list one course.
- 7) **Geography** – Revise the major, revise sequence statement of one course, revise prerequisites for five courses, and revise description and delete prerequisites for two courses.

8) **Geological Sciences** – Add one course.

9) **History** – Revise the history minor description, add four courses, revise title, description, and cross listing of 310-311, revise description of one course, drop two courses, and drop one course from the distribution list.

10) **Interdisciplinary Programs** –

American Studies: Add one cross listing.

Environmental Studies: Revise the program description.

Judaic Studies: Revise the major concentration description and add one cross listing.

Latin American Studies: Add one cross listing.

Legal Studies: Revise the concentration description, add one cross listing, and drop one cross listing.

11) **Mathematics** – Revise the grading system for one course, revise the description of one, and add one course.

12) **Modern Foreign Languages and Literatures** – Italian, add one course; Language and World Business, revise the description of the international business part of the Language and World Business Professional Emphasis, and revise credit hours for the 199 course in each language.

13) **School of Music** – Revise the title of the Piano Pedagogy and Literature program, revise the BM in Sacred Music, revise the Bachelor in Music Education, drop one Music History course, revise the description of one Music Keyboard course, add a prerequisite for the Music Ensemble category, and revise the description of the ensemble requirement.

14) **Philosophy** – Drop one course, add and cross list one course, and add one cross listing.

15) **Physics and Astronomy** – Revise prerequisites for one Physics and one Astronomy course.

16) **Political Science** – Add two courses.

17) **Psychology** – Revise description of the major, add one course, and delete cross listing from one course.

18) **Sociology** – Revise the major and minor descriptions, add one internship course and two honors courses, and revise prerequisites for two courses.

19) **Theatre** – Revise the description of the major, drop four courses, revise the prerequisite for three courses, and revise the description of one course.

**ARTS AND SCIENCES
CURRICULAR PROPOSALS
UNDERGRADUATE COUNCIL
JANUARY 17, 2002**

Add to Divisional Distribution Requirements, Natural Science, List B:

Geology 204 Geology Beyond the Earth

Drop from Divisional Distribution Requirements, Humanities, List B: Philosophical and Religious Thought:

Philosophy 349 War and Morality

Drop from Divisional Distribution Requirements, Humanities, List C: Study or Practice of the Arts:

Theatre 245 Basic Stage Costume

Theatre 250 Introduction to Scenery Technology

Theatre 260 Fundamentals of Lighting and Sound Production

Add to Upper Level Distribution Requirements, Foreign Studies, Critical Issues in Foreign Studies:

History 484 Studies in Jewish History (Same as Judaic Studies 484)

Drop from Upper Level Distribution Requirements, U. S. Studies

History 346 The Environment in U.S. History

History 359 History of the U.S. Economy

COLLEGE OF ARTS AND SCIENCES

In the 2001-2002 Undergraduate Catalog, page 61, 2nd column, Drop the PRE-MBA PROGRAM (delete entire section—program no longer exists).

AUDIOLOGY AND SPEECH PATHOLOGY

On page 68 of the 2001-2002 *Undergraduate Catalog*, 1st column, 2nd and 3rd text paragraphs, Revise From:

The **B.A. Major in Speech Pathology** consists of Audiology and Speech Pathology 300, 302, 303, 305, 306, 320, 331, 433, 461, 473, and 494; and one course from the following courses: Linguistics 200, 371, 372, 411, 471, or 472.

The **B.A. Major in Audiology** consists of Audiology and Speech Pathology 300, 302, 303, 305, 306, 320, 331, 433, 461, 473, and 494.

To:

The **B.A. Major in Speech Pathology** consists of Audiology and Speech Pathology 300, 302, 303, 305, 306, 320, 433, 435, 461, 473, and 494; and one course from the following courses: Linguistics 200, 371, 372, 411, 471, or 472.

The **B.A. Major in Audiology** consists of Audiology and Speech Pathology 300, 302, 303, 305, 306, 320, 433, 435, 461, 473, and 494.

Revise Title:

303 Introduction to Hearing Science (3)
(Formerly: Audiology I)

Revise Title and Description From:

305 Speech Science I: Phonetics and Acoustics of Speech (3) Basic phonetics including recognition and production of spoken English sounds with analysis of their formation; acoustics characteristics of speech and speech perception.

To:

305 Phonetics (3) Basic phonetics including recognition and production of spoken English sounds with analysis of their formation; phonetic transcription of speech; phonetic aspects of dialect variation.

Revise Title:

306 Anatomy and Physiology of Speech (3)
(Formerly: Speech Science II: Anatomy and Physiology)

Revise Prerequisite:

431 Stuttering (3)
Prereq: 300 or consent of instructor.
(Formerly: 304 or consent of instructor)

Revise Prerequisite:

433 Observation of Clinical Practice (1)

Prereq: 320, or consent of instructor.
(Formerly: 320, 331, or consent of instructor).

Revise Number, Title, Description, and Prerequisite From:

331 Articulation Disorders (3) Etiology, diagnosis, and treatment of articulatory defects. Prereq: 304, 305 or consent of instructor.

To:

435 Introduction to Speech Sound Disorders (3) Etiology, diagnosis, and treatment of articulatory and phonological disorders. Prereq: 300, 305 or consent of instructor.

Revise Prerequisite:

440 Voice Disorders (3)

Prereq: 300, 306 or consent of instructor.
(Formerly: 304, 306, or consent of instructor)

Revise Title and Prerequisite:

473 Introduction to Audiologic Assessment (3)
Prereq: 303
(Formerly: Audiology II, Prereq: 371)

BIOCHEMISTRY AND CELLULAR AND MOLECULAR BIOLOGY

Revise Credit Hours:

403 Advanced Genetics Laboratory (3)

(Formerly: 2)

BOTANY

Add cross listing:

419 Science as Method (3) (same as Ecology and Evolutionary Biology 419 and Philosophy 419)
Primary department is Ecology and Evolutionary Biology.

CHEMISTRY

On page 70 of the 2001-2002 Undergraduate Catalog, 2nd column, immediately above B.S. Degree and Chemistry Major, Revise footnote 4 From:

⁴To be chosen from Chemistry 400, 401, 408, 450, and 490.

To:

⁴To be chosen from Chemistry 400, 401, 408, 420, 450, and 490.

On page 70 of the 2001-2002 Undergraduate Catalog, 2nd column, 4th paragraph under B.S. Degree and Chemistry Major, Revise From:

The major consists of Chemistry 240, 310, 319, 350-360, 369, 471-481 or 473-83, 479 and 10 hours of additional work in chemistry that includes at least one laboratory course or lecture/laboratory course; up to 6 hours of Biochemistry and Cellular and Molecular Biology 410-420 or 401-402 or Geology 460 may be applied to the 10-hour requirement.

To:

The major consists of Chemistry 240, 310, 319, 350-360, 369, 471-481 or 473-83, 479 and 10 hours of additional work in chemistry at the 200-level or above that includes at least one laboratory course or lecture/laboratory course; up to 6 hours of Biochemistry and Cellular and Molecular Biology 410-420 or 401-402 or Geology 460 may be applied to the 10-hour requirement.

Add:

Chemistry 420 Selected Topics in Chemistry (1-3) Topics of current significance in Chemistry. May be repeated. Maximum 6 hrs. Only three credits may be applied to a major or minor in Chemistry. Prereq: consent of instructor.

CLASSICS

Add and Cross List:

Classics 310 The Ancient World: Greece (3) Development of Athenian democracy: its successes and failures; polis crisis of the fourth century B.C.; emergence of hellenistic civilization. (Same as History 310)
Primary department is Classics.

Add Cross listing:

Classics 311 The Ancient World: Rome (3) (Same as History 311)
Primary department is History.

ECOLOGY AND EVOLUTIONARY BIOLOGY

Revise Prerequisite:

202-203 Ecology and Evolutionary Biology Colloquium (1,1)
Prereq: Biology 101-102 or equivalent.
(Formerly: Biology 110-120 or equivalent.)

402 Practicum in Ecology and Evolutionary Biology (2)
Prereq: Biology 140, 240, 250 and prior consent of instructor.
(Formerly: Biology 210, 220, 230 and prior consent of instructor)

470 Aquatic Ecology (3)
Prereq: Chemistry 120-130 and Biology 250.
(Formerly: Chemistry 120-130 and Biology 230)

484 Conservation Biology (3)

Prereq: Biology 240, 250.
(Formerly: Biology 220, 230)

Add and Cross List:

419 Science as Method (3) The dynamic process of scientific discovery, as opposed to a static body of knowledge. Topics included will be comparisons of science, nonscience, and pseudoscience, successful and unsuccessful science, the ethics of scientific research, and the philosophical aspects of the scientific enterprise. Implications for teaching and writing about science will be covered. Prereq: an introductory science or philosophy course, or consent of instructor. (Same as Botany 419 and Philosophy 419)
Primary department is Ecology and Evolutionary Biology.

GEOGRAPHY

On page 73 of the 2001-2002 Undergraduate Catalog, 1st column, 1st paragraph below faculty listing, revise B.A. Major From:

B.A. Major Geography 131 and 132 are prerequisite to a major in Geography, which consists of Geography 310, 320, 340, 411 or 415, 499, and 12 additional credits selected from Geography courses at the 300 and 400 levels. At least one course must be chosen from among Geography 361, 363, 365, 371, 372, 373, 375, and 379 and at least 9 hours must be at the 400 level. No more than 3 hours of Geography 490 may be counted toward the major.

To:

B.A. Major Geography 131 and 132 are prerequisite to a major in Geography, which consists of Geography 310 and 499; either 320, 421, or 423; either 340 or 351; one course from among 410, 411 412, 413 or 415; one course from among 361, 363, 365, 371, 372, 373, 375, or 379; and 9 additional credits, at least 6 of which must be taken at the 400 level. No more than 3 hours of Geography 490 may be counted toward the major.

Revise Description From:

101-102 World Geography (3,3) Selected topics and world regions, especially those with problems or situations of contemporary interest, to illustrate geographical points of view, concepts, and techniques. Must be taken in sequence.

To:

101-102 World Geography (3,3) Selected topics and world regions, especially those with problems or situations of contemporary interest, to illustrate geographical points of view, concepts, and techniques. May be taken in either order.

Revise Prerequisite:

411 Computer Mapping and Geographic Information Systems (3)

Prereq: 310 or consent of instructor.
(Formerly: 310 and knowledge of a computer language or consent of instructor.)

415 Quantitative Methods in Geography (3)

Prereq: Mathematics 115 or Statistics 201 or consent of instructor.

(Formerly: Mathematics 115 or two semesters of Calculus or consent of instructor.)

421 Geography of Folk Societies (3)

Delete Prereq.

423 Geography of American Popular Culture (3)

Delete Prereq.

449 Geography of Transportation (3)

Delete Prereq.

Revise Description and Delete Prerequisite From:

441 Urban Geography of the United States (3) Concepts and theories concerning development and significance of systems of cities and internal morphology of cities in the United States.

Prereq: 101-102 or 340 or consent of instructor. (Same as Urban Studies 441.) Writing intensive.

To:

441 Urban Geography of the United States (3) Concepts and theories concerning development and significance of systems of cities and internal morphology of cities in the United States. Writing emphasis course. (Same as Urban Studies 441.)

Revise Description and Delete Prerequisite From:

443 Rural Geography of the United States (3) Geographical appraisal of rural areas of the United States, including small towns and urban fringes. Problems and potentials of rural America.

Prereq: 101-102 or 340 or consent of instructor. Writing intensive.

To:

443 Rural Geography of the United States (3) Geographical appraisal of rural areas of the United States, including small towns and urban fringes. Problems and potentials of rural America. Writing emphasis course.

GEOLOGICAL SCIENCES

Add:

204 Geology Beyond the Earth (3) The geologic evolution of other bodies in the solar system, including Mercury, Mars, Venus, meteorites, and large moons of Earth and Jupiter. The focus is on geologic and possibly biological processes that can be identified and understood from space-craft missions, remote sensing, and laboratory study of extraterrestrial samples. No prerequisites. May not be applied toward the Geology major.

Add to Divisional Distribution Requirements, Natural Science, List B.

HISTORY

In the 2001-2002 Undergraduate Catalog, page 74, 1st column, 2nd paragraph, description of the History minor, Revise From:

Minor History 241-242 (or honors equivalents) are prerequisites to a minor which consists of 15 hours of courses numbered 200 or above, including at least: (1) 6 hours in United States history; and (2) 9 upper-division hours.

To:

Minor History 241-242 or 261-262 (or honors equivalents) are prerequisites to a minor which consists of 15 hours of courses numbered 200 or above, including at least: (1) 6 hours in United States history; and (2) 9 upper-division hours.

Revise Description From:

221-222 History of the United States (3,3) 221 – Settlement to 1877. 222 – 1877 to present.

To:

221-222 History of the United States (3,3) 221 – Settlement to 1877. 222 – 1877 to present. Writing emphasis course.

Revise Title, Description and Cross Listing From:

310-311 The Ancient World (3,3) 310 – Development of Athenian democracy: its successes and failures; polis crisis of the fourth century B.C.; emergence of hellenistic civilization. 311 – Origins of Roman imperialism and its consequences: militarism, empire, socioeconomic changes, constitutional crises, emergence of military and political autocracy.

To:

310 The Ancient World: Greece (3) (Same as Classics 310)
Primary department is Classics.

311 The Ancient World: Rome (3) Origins of Roman imperialism and its consequences: militarism, empire, socioeconomic changes, constitutional crises, emergence of military and political autocracy. Writing emphasis course. (Same as Classics 311)
Primary department is History.

Add:

342 History of Nazi Germany (3) The coming to power of the Nazi party in Germany, origins of ideology, rise and fall of the “Third Reich.” Topics include foreign policy, social policy, World War II, Hitler’s brutal rule and racial programs, culminating in mass murder and genocide against the Jews of Europe. Writing emphasis course.

Add:

356 The 1960s in America (3) The politics, social movements, and cultural rebellions of the 1960s. Topics include race riots, antiwar protests, new art forms, Great Society legislation, the rise of neoconservatism, empowerment movements by people of color, Cold War brinkmanship in Cuba, and the escalation of ground and air wars in Vietnam. Writing emphasis course. (Same as American Studies 356). Primary department is History.

Drop:

359 History of the US Economy (3)

Drop from Upper Level Distribution Requirements, U.S. Studies.

Drop:

415 Western Economic Thought Since the 18th Century (3)

Add and Cross List:

484 Studies in Jewish History (3) Variable content. Significant topics in the study of Jewish civilization and culture, including the development of the synagogue, Judaism and ethnicity, and the history of Jerusalem. May be repeated. Maximum 9 hrs. Writing emphasis course. (Same as Judaic Studies 484)

Primary department is History.

Add to Upper Level Distribution Requirements, Foreign Studies, Critical Issues.

Add:

486 Studies in the Ancient Near East (3) Variable content. History and archaeology of Egypt, Anatolia (Turkey), Cyprus, and Persia (Iran), the rise of social complexity, and social boundaries in antiquity. May be repeated. Maximum 9 hrs. Writing emphasis course.

INTERDISCIPLINARY PROGRAMS

AMERICAN STUDIES

Add and Crosslist:

356 The 1960s in America (3) (Same as History 356) Primary department is History.

ENVIRONMENTAL STUDIES

On page 75 of the 2001-2002 Undergraduate Catalog, 1st column, under Environmental Studies, 2nd paragraph and the first two sentences of 3rd paragraph, Revise From:

Prerequisites to a B.A. Major in Environmental Studies are: Biology 130-140 or Botany 110-120; Chemistry 120-130; Geology 101; Geography 131; Mathematics 123-125 or 141-142 or 151-152; and Economics 201.

The **Major Concentration** consists of a core and a specialty. The core includes: Biology 250; Sociology 360; Philosophy 346; Economics 462; Agriculture 333; History 373; Geography 436; or Plant and Soil Science 432.

To:

Prerequisites to a B.A. Major in Environmental Studies are: Biology 130-140 or Botany 110-120; Chemistry 120-130; Geology 101; Geography 131; Mathematics 123-125 or 141-142 or 151-152; Economics 201; and Biology 250.

The **Major Concentration** consists of a core and a specialty. The core includes Geology 202 plus: a) 12 hours from: History 346; Sociology 360; Philosophy 346; Economics 462; Agriculture and Natural Resources 333; Journalism 451; Geology 490; b) 3 hours from: Geology 455, Geography 433, Geography 436 or Ecology/Evolution 484; c) 3 hours from: Geography 334, Geography 434, or Environmental and Soil Sciences 462.

JUDAIC STUDIES

On page 75 of the 2001-2002 Undergraduate Catalog, under Judaic Studies, 2nd paragraph, Revise From:

A **Major Concentration** consists of at least 27 hours at the 300 level or above, distributed as follows: (a) Religious Studies 381, History 370, and 12 hours from Religious Studies 311, 312, 320, 385, 386, 405; (b) 9 hours selected from Art History 425, 431, 475; German 350; History 369, 395; Philosophy 322.

To:

A **Major Concentration** consists of at least 27 hours at the 300 level or above, distributed as follows: (a) Religious Studies 381, History 383, and 12 hours from Religious Studies 311, 312, 320, 385, 386, 405, History 370, 384; (b) 9 hours selected from Art History 425, 431, 475, German 350, History 369, 395, 484, Philosophy 322.

Add:

484 Studies in Jewish History (3) (Same as History 484)
Primary department is History.

LATIN AMERICAN STUDIES

Add Cross Listing:

334 Survey of Hispanic Literatures: Beginnings-1700 (3) (Same as Spanish 334)
Primary department is Modern Foreign Languages and Literatures.

LEGAL STUDIES

On page 75 of the 2001-2002 Undergraduate Catalog, 3rd column, next to last paragraph under Legal Studies, Revise From:

The concentration consists of 27 hours, including Sociology 455 Society and Law and 24 hours of upper division courses distributed among five categories: (1) analysis - 3 hours from Communications 300, English 496, Psychology 395, Sociology 331; (2) processes - Sociology 451, and 3 hours from Political Science 331, 430, 442; (3) perspectives - 3 hours from English 490, Political Science 330, Psychology 424; (4) historical and global dynamics - 3 hours from Classics 462, Political Science 470; (5) issues - 6 hours from Communications 400, Philosophy 344, Political Science 431, Speech Communication 469, Women's Studies 340. The remaining three hours are to be chosen from one of the five categories or an approved elective.

To:

The concentration consists of 27 hours, including Sociology 455 Society and Law and 24 hours of upper division courses distributed among five categories: (1) analysis - 3 hours from Communications 300, English 496, Sociology 331; (2) processes - Sociology 451, and 3 hours from Political Science 430, 442; (3) perspectives - 3 hours from English 490, Political Science 330, Philosophy 392; (4) historical and global dynamics - 3 hours from Classics 362, Political Science 470; (5) issues - 6 hours from Communications 400, Philosophy 344, Political Science 431, Speech Communication 469, Women's Studies 340. The remaining three hours are to be chosen from one of the five categories or an approved elective.

Add Cross Listing:

392 Philosophy of Law (3) (Same as Philosophy 392)
Primary department is Philosophy.

Drop:

424 Psychology and Law (3) (Same as Psychology 424)

MATHEMATICS

Revise Description From:

151-152 Mathematics for the Life Sciences I, II (3,3) For students majoring in the Life Sciences. Does not serve as a prerequisite for 231 or 241. Topics include: descriptive statistics, linear regression, discrete probability, matrix algebra, difference equations, calculus, and differential equations. Emphasis on applications in the life sciences. Includes computer projects. Prereq: Two years of algebra, a year of geometry, and half a year of trigonometry in high school, plus satisfactory placement test scores, or 130. Credit will not be given for 141 and 152.

To:

151-152 Mathematics for the Life Sciences I, II (3,3) For students majoring in the Life Sciences. Does not serve as a prerequisite for 231 or 241. Topics include: descriptive statistics, linear regression, discrete probability, matrix algebra, difference equations, calculus, and differential equations. Emphasis on applications in the life sciences. Includes computer projects. Prereq: Two years of algebra, a year of geometry, and half a year of trigonometry in high school, plus satisfactory placement test scores, or 130. Students who receive a grade of C or better in Math 141 cannot subsequently receive credit for Math 152.

Revise Grading System:

171 Computer Literacy for Mathematics (3).
Letter grade (Formerly: S/NC)

Add:

403 Mathematical Methods for Engineers and Scientists (3) Matrix computations, numerical methods, partial differential equations, Sturm-Liouville Theory and special functions as used in engineering and science. Does not satisfy major requirements for a B.S. or M.S. in mathematics. Prereq: 231, 241, and familiarity with an operating system and a programming language (e.g., 171 or Computer Science 102).

MODERN FOREIGN LANGUAGES AND LITERATURES

In the 2001-2002 Undergraduate Catalog, page 79, 1st column, under PROFESSIONAL EMPHASIS, Revise number 1 From:

1. International Business students will take 24 hours. The following are required: Accounting 201, 202, Marketing 301, Management 301, and Finance 301. Students then choose three courses from the following general business courses: Logistics and Transportation 301, 302, Business Law 301, Management 471, Marketing 440, Logistics and Transportation 441, Economics 321, or Business Administration 311.

To:

1. International Business students will take 24 hours beyond the prerequisite courses specified next under "C. PRACTICAL EXPERIENCE." The following are required: Accounting 201-202 (5 hours), Business Administration 201 (4 hours), Finance 301 (3 hours), Marketing 300 (3 hours), and Management 300 (3hours). Students then choose two from the following recommended list: Business Law 301, Management 471, Marketing 310, 440, Economics 321, Business Administration 371. Other business courses numbered 300 or higher may be used to fulfill this requirement with the consent of the student's faculty advisor.

ASIAN LANGUAGES

Revise Credit Hours:

199 Chinese and Japanese Language and World Business (3)
(Formerly: 2)

FRENCH

Revise Credit Hours:

199 French Language and World Business (3)
(Formerly: 2)

GERMAN

Revise Credit Hours:

199 German Language and World Business (3)
(Formerly: 2)

ITALIAN

Add:

493 Independent Study (1-15)

Revise Credit Hours:

199 Italian Language and World Business (3)
(Formerly: 2)

PORTUGUESE

Revise Credit Hours:

199 Portuguese Language and World Business (3)
(Formerly: 2)

RUSSIAN

Revise Credit Hours:

199 Russian Language and World Business (3)
(Formerly: 2)

SPANISH

Revise Credit Hours:

199 Spanish Language and World Business (3)
(Formerly: 2)

MUSIC

In the 2001-2002 Undergraduate Catalog, page 80, 2nd column, paragraph under the heading ENSEMBLES, Revise From:

Ensemble participation during each semester of residence is required of all students studying applied music. Students are required to participate in ensembles appropriate to their specific degree program as approved by the faculty of the department. Ensemble requirements vary among the concentrations and are listed in the School of Music Undergraduate Handbook, which is available in Room 211, Music Building

To:

Ensemble participation during each semester of residence is required of all students studying applied music. Students are required to participate in ensembles appropriate to their specific degree program as approved by the faculty of the department. Ensemble requirements vary among the concentrations and are listed in the School of Music Undergraduate Handbook, which is available in Room 211, Music Building. Enrollment in all ensembles is by audition or consent of instructor.

In the 2001-2002 Undergraduate Catalog, page 82, 1st column, under B.M. Curriculum in Music Education–Vocal/General Concentration/Keyboard Emphasis (5 year option), Add to Junior year list of courses:

Music Voice 450 2

In the 2001-2002 Undergraduate Catalog, page 82, 1st column, under B.M. Curriculum in Music Education–Vocal/General Concentration/Keyboard Emphasis (4 year option), Add to Junior year list of courses:

Music Voice 450 2

In the 2001-2002 Undergraduate Catalog, page 83, 2nd column, Revise Section Title From:

B.M. Curriculum in Piano Pedagogy and Literature

To:

B.M. Curriculum in Piano Pedagogy

In the 2001-2002 Undergraduate Catalog, page 83, 2nd and 3rd columns, Sacred Music section, Revise From:

B.M. Curriculum in Sacred Music

Hours Credit

Freshman

English 101, 102	6
Music Theory 110, 120	6
Music Theory 130, 140	2
Music Performance 155 or 190	3,3
Music Performance	1,1
Music Ensemble	1,1
Music General 200	0,0
Music History 200	3
Foreign Language	6

Sophomore

Music Theory 210, 220	6
Music Theory 230, 240	2
Music Performance 255 or 290	3,3
Music General 200	0,0
Music History 210, 220	6
Music Ensemble	1,1
Music Performance	1,1
Natural Science	6
Area Studies (2)	2-4

Junior

Religious Studies	6
Music History 380, 480	6
Music Voice 490	3
Music Theory 310	3
Music Performance 355 or 390	3,3
Music General 200	0,0
Music General 301	0
Music Ensemble	1,1
Music Education 200	1
Music Education 310, 320	5

Senior

Area Studies (3)	6-8
Music Performance 455 or 490	3,3
Music General 200	0,0
Music General 401	0
Music Ensemble	1,1
Non-US History	6
Electives	130 hours

- (1) Organ majors take Class Voice (Music Voc 110-120) and/or Voice (Music Performance 155). Voice majors take Class Piano (Music Kbd 110-120, 210-220) or Organ (Music Performance 190).
- (2) Organ majors take Keyboard Harmony (Music Kbd 230) 1; Church Service Playing I (Music Kbd 240) 1. Voice majors take Functional Diction for Singers (Music Voc 425) 3.
- (3) Organ majors take Church Service Playing II-III (Music Kbd 310-320) 1,1 and The Organ and Its Literature I-II (Music Kbd 460-470) 3,3. Voice majors take Vocal Pedagogy I-II (Music Voc 450-460) 2,1 and Choral Literature (Music Voc 580-585) 2,2.

To:

B.M. Curriculum in Sacred Music

	Hours Credit
Freshman	
English 101, 102	6
Music Theory 110, 120	6
Music Theory 130, 140	2
Music Performance 155 or 190	3,3
Music Performance	1,1
Music Ensemble	1,1
Music General 200	0,0
Music History 200	3
Foreign Language	6
Sophomore	
Music Theory 210, 220	6
Music Theory 230, 240	2
Music Performance 255 or 290	3,3
Music General 200	0,0
Music History 210, 220	6
Music Ensemble	1,1
Music Performance	1,1
Natural Science	6
Area Studies (2)	2-4
Junior	
Social Science	6
Music History 380, 480	6
Music Voice 490	3
Music Theory 310	3
Music Performance 355 or 390	3,3
Music Performance	1,1
Music General 200	0,0
Music General 301	0
Music Ensemble	1,1
Music Education 200	1
Music Education 310, 320	5
Senior	
Area Studies (3)	6-8
Religious Studies (4)	3
Music Performance 455 or 490	3,3
Music General 200	0,0
Music General 401	0
Music Ensemble	1,1
Non-US History	6
Electives	8
TOTAL	132 hours

- (1) Organ majors take Class Voice (Music Voc 110-120) and/or Voice (Music Performance 155). Voice majors take Class Piano (Music Kbd 110-120, 210-220) or Organ (Music Performance 190).
- (2) Organ majors take Keyboard Harmony (Music Kbd 230) 1; Church Service Playing I (Music Kbd 240) 1. Voice majors take Functional Diction for Singers (Music Voc 425) 3.
- (3) Organ majors take Church Service Playing II-III (Music Kbd 310-320) 1,1 and The Organ and Its Literature I-II (Music Kbd 460-470) 3,3. Voice majors take Vocal Pedagogy I-II (Music Voc 450-460) 2,1 and Choral Literature (Music Voc 580-585) 2,2.
- (4) To be chosen from Religious Studies 101, 102, 232, 305, 311, 321, 322, 326, 351, 352, 355, 370, 425, 430.

In the 2001-2002 Undergraduate Catalog, page 187, 1st column, directly under the title Music Ensemble (708) Add:

Prerequisite: By audition or consent of instructor.

MUSIC HISTORY

Drop:

390 World Music (3)

MUSIC KEYBOARD

Revise description from:

490-491 Internship (2,2)

Opportunity for pedagogy students to gain experience in teaching pre-college students under the supervision of experienced instructors.

To:

490-491 Internship (2,2)

Opportunity for pedagogy students to gain experience in teaching beginning students under the supervision of experienced instructors. Includes weekly discussion seminars.

PHILOSOPHY

Drop:

349 War and Morality (3)

Drop from Divisional Distribution Requirements, Humanities, List B: Philosophical and Religious Thought.

Add and Cross List:

392 Philosophy of Law (3) A course in analytic and normative jurisprudence. Such topics as the nature of legal systems as normative social practices, the relationships between law and morality, theories of adjudication and legal reasoning, the justification of punishment, theories of legal responsibility, law and economics, and feminist and neo-Marxist critiques of law. Writing emphasis course. (Same as Legal Studies 392.)

Primary department is Philosophy.

Add Cross Listing:

419 Science as Method (3) (Same as Ecology and Evolutionary Biology 419 and Botany 419)
Primary department is Ecology and Evolutionary Biology.

PHYSICS AND ASTRONOMY

PHYSICS

Revise Prerequisite:

231 Fundamentals of Physics: Electricity and Magnetism (3)
Prereq: Engineering Fundamentals 102
(Formerly: Basic Engineering 121-131)

ASTRONOMY

Revise Prerequisite:

411 Astrophysics (3)
Prereq: Physics 136 or 138 or 222 or 232 and consent of instructor.
(Formerly: Physics 232 and consent of instructor)

POLITICAL SCIENCE

Add:

451 Ethnic Conflict in Foreign Countries (3) Examines political and violent conflict among ethnic and national groups and the challenges these conflicts pose for democratic and democratizing states.

PSYCHOLOGY

In the 2001-2002 Undergraduate Catalog, page 86, 1st paragraph, Revise Number 1 From:

(1) Either Psychology 385 or Statistics 201 and 21 additional hours in Psychology, or Math 115 and 24 additional hours in Psychology.

To:

(1) Either Psychology 295 or Psychology 395 (prerequisites to Psychology 395 are Psychology 385 or Statistics 201 or Math 115).

Add:

295 Research Analysis in Psychology (3) An introduction to the research methods and data analyses used in psychological research. This course should be taken as soon as possible after declaring psychology a major. Prerequisite: Psychology 110.

Revise Description to Delete Cross Listing, From:

424 Psychology and the Law (3) Psychological aspects of legal systems. Prereq: 110 and Junior standing (60 semester hours) or consent of instructor or Graduate standing. (Same as Legal Studies 424)

To:

424 Psychology and the Law (3) Psychological aspects of legal systems. Prereq: 110 and Junior standing (60 semester hours) or consent of instructor or Graduate standing.

SOCIOLOGY

In the 2001-2002 Undergraduate Catalog, page 86, 2nd column, Revise the 1st sentence of the Major From:

Major Before applying to the Sociology Department for admission to the major a student must complete either Sociology 110 or 120 with a grade of C+ or above.

To:

Major Before applying to the Sociology Department for admission to the major a student must complete either Sociology 110 or 120 or their honors equivalent with a grade of C+ or above.

In the 2001-2002 Undergraduate Catalog, page 86, 2nd column, Revise the 2st sentence of the Minor From:

Prerequisite to the minor is three lower-division hours in Sociology (either 110 or 120).

To:

Prerequisite to the minor is three lower-division hours in Sociology (either 110 or 120 or their honors equivalent).

Add:

117 Honors: Social Problems and Social Change (3) Open to University Honors students and by departmental permission to first year students with 28 or higher ACT or 1200 SAT and other students with a minimum of a 3.0 average.

127 Honors: General Sociology (3) Open to University Honors students and by departmental permission to first year students with 28 or higher ACT or 1200 SAT and other students with a minimum of a 3.0 average.

399 Off-Campus Internship (1-6) Supervised experience at an approved site. Analysis of internship experiences with sociological tools provided through readings and class discussions. Oral and written reports required. Prerequisite: Departmental consent and senior standing in the major.

Revise Prerequisite:

321 Sociological Theory (3)

Prereq: C+ or better in Sociology 110 or 120 or consent of instructor.
(Formerly: Sociology 110 or 120 or consent of instructor)

Revise Prerequisite:

331 Sociological Research (3)

Prereq: C+ or better in Sociology 110 or 120 or consent of instructor.
(Formerly: 110 or 120 or consent of instructor)

THEATRE

In the 2001 - 2002 Undergraduate Catalog, page 87, Revise description of the Theatre Major From:

Major Theatre 100 is a prerequisite to a major which consists of 200, 220, 300, 411, 412, 1 from 340, 345, 350, 355, 360, and 12 additional hours of Theatre courses numbered 200 and above, 3 of which may be in cognate areas approved by the Department.

To:

Major Theatre 100 is a prerequisite to a major which consists of 200, 220, 300, 411, 412, 430, 1 from 340, 345, 355, 362, and 12 additional hours of Theatre courses numbered 200 and above, 3 of which may be in cognate areas approved by the Department.

Drop:

245 Basic Stage Costume (3)

Drop from Divisional Distribution Requirements, Humanities, List C: Study or Practice of the Arts.

250 Introduction to Scenery Technology (3)

Drop from Divisional Distribution Requirements, Humanities, List C: Study or Practice of the Arts.

260 Fundamentals of Lighting and Sound Production (3)

Drop from Divisional Distribution Requirements, Humanities, List C: Study or Practice of the Arts.

350 Production Planning (3)

Revise Prerequisite:

340 Introduction to Costume Design (3)

Delete Prereq
(Formerly: 245 or consent of Instructor)

362 Introduction to Lighting Design (3)

Prereq: Theatre 200 or consent of Instructor.
(Formerly: 260)

425 Selected Musical Theatre Techniques (2)

Delete Prereq
(Formerly: 324 or consent of Instructor)

Revise Description From:

401 Principles of Theatrical Design (3) Fundamental principles of design; visual and structural relationships. Projects will be assigned to develop understanding and perception.

To:

401 Principles of Theatrical Design (3) Visual and structural relationships in theatrical design.

THE UNIVERSITY OF TENNESSEE



College of Business Administration
Office of the Dean
716 Stokely Management Center
Knoxville, Tennessee 37996-0570
(865) 974-5061
Fax: (865) 974-1766

MEMO

TO: Linda Tober, Assistant Dean
Undergraduate Academic Affairs

FROM: Jan R. Williams, Dean

A handwritten signature in black ink, appearing to read "Jan R. Williams".

DATE: December 20, 2001

SUBJECT: Undergraduate Curriculum Changes – College of Business
Administration

The faculty of the College of Business Administration wish to submit the attached curriculum changes to the Undergraduate Council for consideration for approval.

We appreciate your assistance in scheduling the attached changes at the January meeting.

Encl

College of Business Administration

CHANGE IN MAJOR TITLE

From:
General Business

To:
Business Studies

Rationale: To reflect contemporary terminology.

Effective Date: Fall 2002

REVISE curricula requirements

From:
Natural Science—Any two-course sequence from those listed below: NOTE: Certain restrictions may apply to receiving credit in some of these areas. See individual course descriptions or advisor for details. Astronomy 161-162, or 217-218; Biology 101-102; Botany 110-120; Chemistry 120-130, or 128-138; Geography 131-132; Geology 101-102; 101-103.

To:
Natural Science—Any two-course sequence from those listed below: NOTE: Certain restrictions may apply to receiving credit in some of these areas. See individual course descriptions or advisor for details. Astronomy 161-162, or 217-218; Biology 101-102; Botany 110-120; Chemistry 120-130, or 128-138; Geography 131-132; Geology 101-102; 101-103, **or 107-108; Physics 135-136, or 137-138, or 221-222.**

Rationale:

Add the honors sequence of Geology and Physics sequences.

From:

Humanities—**Six** hours from courses listed below **with at least three from the literature list. Literature:** Asian Languages 311, 312, 313, 314; Classics 253, **254**; Comparative Literature 202, 203; English 201, 202, 221, 222, 231, 232, 233, 251, 252, 253, 281, 333, or 200-level Honors Literature Courses; Any foreign language courses whose content is literature including foreign literature in English translation; Medieval Studies 261, 262;

Music History 310; Religious Studies 312, 313; Women's Studies 210, 215; **Other Humanities: Art 171; Classics 221, 222; Philosophy 110, 111, 120, 121, 130, 135, 290, 342, 360, 380, 382; Religious Studies 101, 102, 232, 235, 300; Women's Studies 382.**

To:

Humanities—Three hours from courses listed below: Asian Languages 311, 312, 313, 314; Classics 253; Comparative Literature 202, 203; English 201, 202, 221, 222, 231, 232, 233, 251, 252, 253, 281, 333, or 200-level Honors Literature Courses; Any foreign language courses whose content is literature including foreign literature in English translation; Medieval Studies 261, 262; Religious Studies 312, 313; Women's Studies 210, 215.

Rationale:

To reflect the new curricular structure approved November 29, 2001.

Classics 254 is no longer offered.

Music History 310 course description contains no reference to literature.

From:

Social Science—**Accounting majors must complete a course in Anthropology, Psychology, or Sociology and complete Political Science 101, 102 or 107.** Public Administration majors must complete either Political Science 101 or 107; Anthropology 110, 120, 130, 320; Geography 101, 102, 320, 323; Political Science 101, 102, 107; Psychology 110, 220, 310, 320, 360, 395; Sociology 110, 120, **200**, 310, **346**, 370, 415, 459.

To:

Social Science—Public Administration majors must complete either Political Science 101 or 107; Anthropology 110, 120, 130, 320; Geography 101, 102, 320, 323; Political Science 101, 102, 107; Psychology 110, **117**, 220, 310, 320, 360; Sociology 110, 117, 120, 127, 310, 370, 415, 459.

Rationale:

Accounting's accrediting body no longer requires Political Science and the new statement is inclusive of all majors.

Sociology 200 and 346 are no longer offered.

Psychology 117 reflects the addition of the honors version of 110, first offered Fall 2001.

From:

Written Communications—One course from English 263, 295, 355, 360, **455.**

To:

Written Communications—One course from English 263, 295, 355, 360.

Rationale:

Courses approved in new progression standards November 29, 2001.

From:

Arts—One course from the courses listed below: Art 191; Art History 172, 173, 183; Classics 232, 233; **English 263**; Music History **100**, 110, 120; **Music General 130**; Speech 280, **380**; Theatre 100, 220, 221, 260; Women's Studies 330.

To:

Arts—One course from the courses listed below: Art 191; Art History 172, 173, 183; Classics 232, 233; Music History 110, 120, **330**; Speech 280, Theatre 100, 220, 221, 260; Women's Studies 330.

Rationale:

Remove English 263 because it is part of the approved progression requirements for Written Communications.

Music History 100, Music General 130, and Speech 380 are no longer offered.

Music History 330 is cross-listed with Women's Studies 330 (already on the list).

From:

International Business—The international course requirement may be satisfied by taking either Business Administration 311 or 491 or an international course in a concentration area such as Management 471, Logistics and Transportation 441, Economics 321, Economics 323, or Marketing 440.

To:

Business Administration 361

Rationale:

To reflect the curriculum approved November 29, 2001.

Effective Date: Fall 2002

STATISTICS

Add:

207 Honors Introduction to Statistics (3)
Intended as an alternative to 201 for higher GPA students. Involves both lecture and labs, prerequisite: MA 125, 141, or 147 Two 50 minute lecture classes, and one 110 minute lab per week.

Effective date: Fall 2002

THE UNIVERSITY OF TENNESSEE



College of Communications
Center For Undergraduate Studies and Advising
202 Communications-University Extension Building
Knoxville, Tennessee 37996-0313
(865) 974-3603

December 12, 2001

To: Undergraduate Council
Fr: College of Communications
Re: 2002-2003 Undergraduate Catalog Revisions

The College of Communications requests approval of the following course title and description revision for the 2002-2003 Undergraduate Catalog:

Course: BRD 470

Revise Title and Description:

The old catalog copy on page 157 (2001/2002 catalog) reads:

470 Cable Television and Emerging Technologies (3) History and structure of the cable television industry. Cable regulations and programming. Examination of the role of telephone companies in the distribution of video. Analysis of all relevant technologies including direct broadcasting satellite, fiber optics, cable, high definition television and others. Prereq: 275 or consent of instructor.

The new copy should read:

470 Cable, Broadband, and Interactive Digital Media (3) History and structure of cable television and other broadband delivery systems (DBS, Internet, etc.). Development of digital broadcasting, interactive television, and other broadband media systems and digital technologies. Regulatory, policy, programming, and management issues arising from new media and digital technologies. Prereq: 275 or consent of instructor.

Rationale for change: The Department of Broadcasting and the College of Communications feels these changes better reflect how the course is being taught in light of changes in modern communications technologies. The College of Communications requests approval of the following change in prerequisites:

Course: BRD 450

Revise Prereq:

The old catalog on page 157 (2001/2002 catalog) reads:

450 Radio, Television and Society (3) Effects of electronic media on society. Research and theory applied to current issues. Prereq: Communications 100 or Speech Communications 100.

The new catalog copy should read:

450 Radio, Television and Society (3) Effects of electronic media on society. Research and theory applied to current issues. Prereq: BRD 275.

Rationale: Students need a better basic understanding of broadcasting systems than the 100-level courses provide to deal with the issues presented in 450.


THE UNIVERSITY OF TENNESSEE



College of Communications
Office of the Dean
302 Communications-University Extension Building
Knoxville, Tennessee 37996-0332
(865) 974-3031
FAX (865) 974-3896

MEMORANDUM

TO: Dr. Linda Tober
Associate Dean, Undergraduate Academic Affairs

FROM: 
Dwight L. Teeter, Jr.
Professor and Dean

DATE: December 19, 2001

SUBJECT: Additions in Changes to College of Communications' Proposal on
Undergraduate Changes

Please add the attached proposal regarding a change in electives and a change in progression requirements for the Department of Advertising to the material previously submitted from the College of Communications.

Please add the attached proposal for the Undergraduate Council's consideration in January.

cc: Dr. Eric Haley
Dr. Ron Taylor

Proposal from the Department of Advertising/College of Communications

1. Change in designation of electives

Rationale: A new standard by our accrediting agency requires that students in our major have a minimum of 65 hours in the ALiberal Arts@ and a total of 80 hours outside the College.

Under the current curriculum a student could have only 60 hours in the ALiberal Arts@ and 72 hours outside the College, depending on the choice of electives. By changing the mix, all students will meet the new standard of 65 hours in Liberal Arts and 80 hours outside the College. The changes also preserve a student=s ability to minor in Business, Foreign Language, or other areas without adding hours to the curriculum.

Current copy, middle column, p. 96, under AAdvertising@ curriculum, Junior Year and Senior Year

<u>Junior Year</u>	
Social Science Elective	3
General Elective	3
<u>Senior Year</u>	
General Electives	12

Change to:

<u>Junior Year</u>	
Arts & Sciences Electives	6
<u>Senior Year</u>	
Arts & Sciences Elective	3
Electives outside College of Communication	9

2. Change in Progression Requirements

Rationale is attached.

Current copy, p. 96, under Progression Requirements

Students may progress to a major in the Department of Advertising after they complete the course requirements listed for the freshmen year with a cumulative grade point average of 2.5.

Change to:

Students who have completed the course requirements for the freshman year with a minimum 2.75 cumulative average in those courses will be considered for progression into the Department of Advertising. Applicants must submit a completed department application, a statement of career goals, and an academic history.

Current copy, under Transfer Students, p. 96

Students pursuing a major in advertising must complete the freshman year course requirements with a 2.5 cumulative GPA.

Change to:

Students pursuing a major in advertising must complete the freshman year course requirements with a 2.75 cumulative GPA to be considered for admission.

Rationale for Change in Progression Requirements in the Department of Advertising

The Department of Advertising has been nationally ranked for its undergraduate and graduate programs for the past seven years. In 1998, it was designated a "program of excellence" on the University of Tennessee campus.

One of the things that allowed a program with very limited resources to rise to national prominence—a proper balance of undergraduate and graduate students, a balance of teaching, service and research, and reasonable class sizes—has slipped away and program quality is now threatened.

The number of eligible undergraduate students applying to the program jumped from 60 students in 1995 to more than 100 in each of the past three years. Approximately 50 percent of applicants in any given year have GPAs between 2.5 and 2.75.

The increasing waves of students each year has led to the following situation:

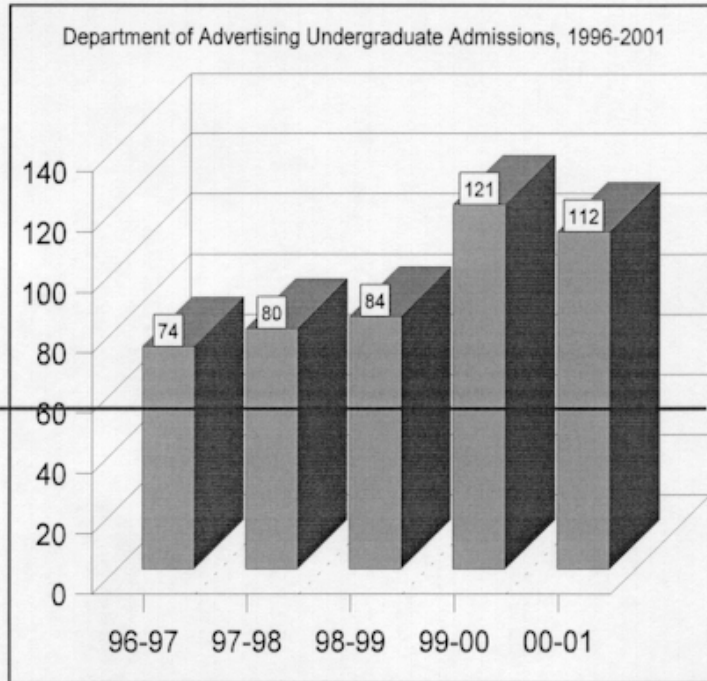
- a. The Department is stretched beyond its available resources.
- b. An increase in faculty research productivity is now decreasing due to much larger class sizes and a faculty to student advisee ratio of 1:45.
- c. Teaching evaluations, due to larger classes, have declined slightly.
- d. Although no student has been denied space in class needed to remain Aon track to graduation@ students and parents have become antagonistic regarding availability of classes
- e. Faculty morale has dropped and faculty feel frustrated with low pay, lowered teaching evaluations and reduced research productivity.

Data reflecting this situation are presented in the following graphs.

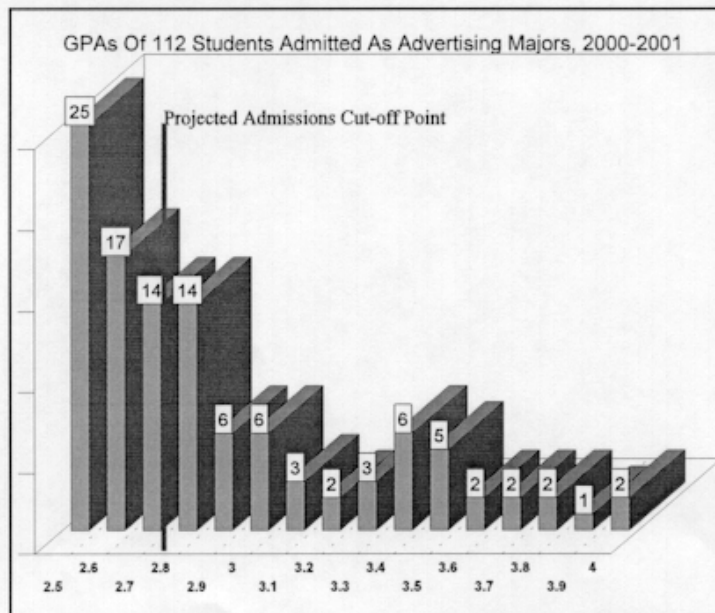
Effective Fall 2002

The Department has admitted too many students for the past five years.

Projected Number

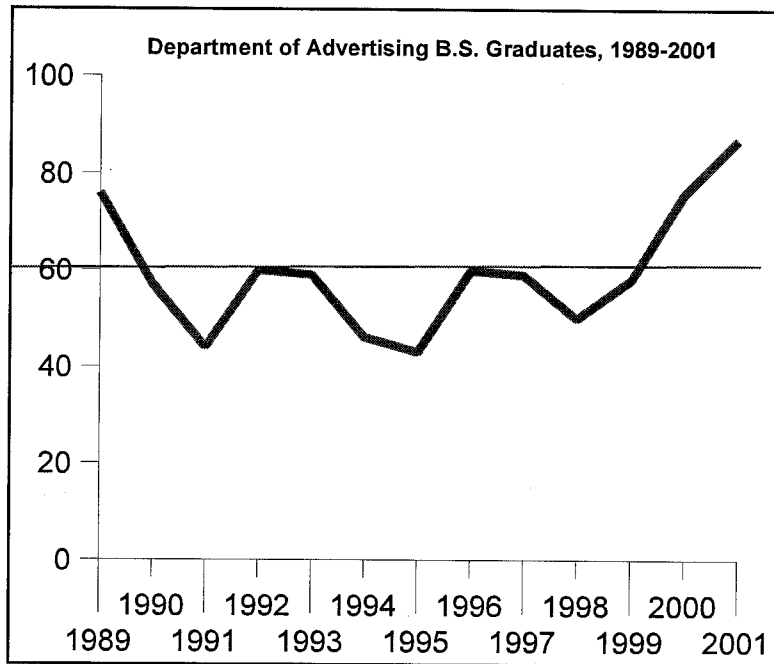


Fifty per cent of students admitted have GPAs below 2.75.

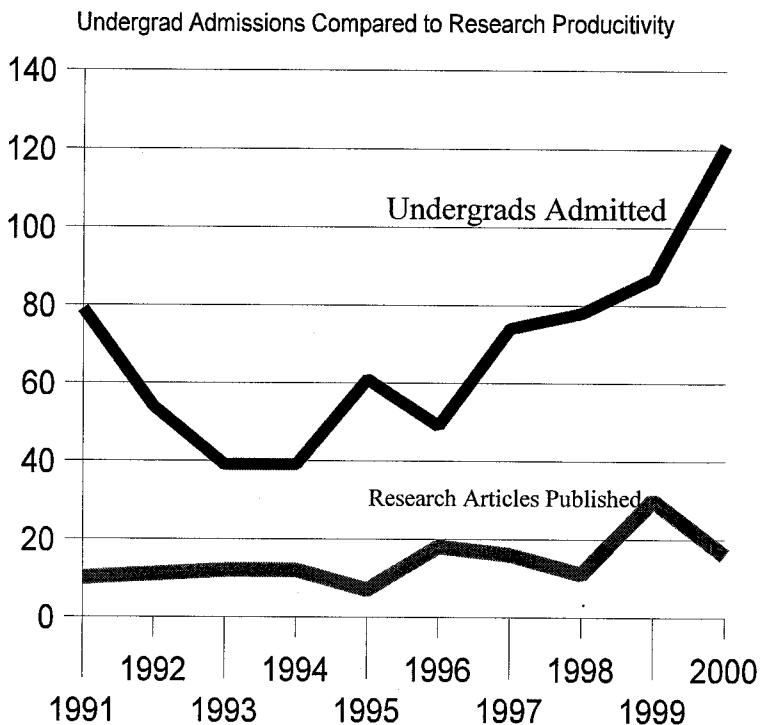


The number of advertising graduates has climbed rapidly.

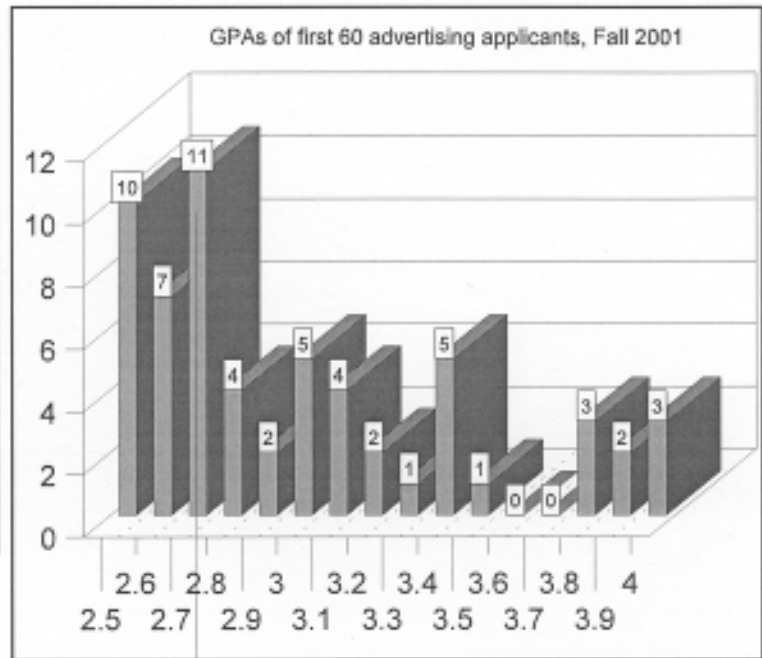
Proposed number of graduates



Too many students reduces teaching evaluations and research productivity.
 (Shown on one-year lag basis)



- Current Admissions Requirements**
1. Complete these courses with a minimum 2.5 GPA:
 - English 101, 102
 - Communications 100
 - Foreign Language (6)
 - Anthropology 130
 - Natural Science (8)
 - Math 123, 125
 2. Submit application and essay
 3. Attend admissions meeting
 4. Have between 30-80 hours




Projected cut-off point

THE UNIVERSITY OF TENNESSEE



College of Education
Office of the Dean
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Knoxville, Tennessee 37996-3400
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MEMORANDUM

TO: LINDA TOBER
FROM: TOM GEORGE 
COLLEGE OF EDUCATION
RE: ITEMS FOR NEXT UNDERGRADUATE COUNCIL
DATE: 12/18/2001

Enclosed please find items recently approved by the College of Education's Academic Affairs Committee. We would appreciate your placing these items on the agenda of the next Undergraduate Council meeting for further consideration.

Thank you.

EXERCISE SCIENCE & SPORT MANAGEMENT

Dance

Revise description (add repetition):

Dance 240 Tap I (2) Instruction and practice in elementary tap dance techniques. May be repeated. Maximum 4 hours.

Dance 340 Tap II (2) Instruction and practice in intermediate tap dance techniques. Prereq: 240 or consent of instructor. May be repeated. Maximum 12 hours.

Effective Fall 2002

Exercise Science

Revise program

On page 103 of the 2001-2002 Undergraduate Catalog, revise the Exercise Science requirements to reflect the following:

<u>Junior</u>	<u>Hours Credit</u>
Cultural Studies in Education 291, 321, or 372	3 (was 6)
Statistics 201 or Math 115	3 (was 0)
<u>Senior</u>	
Humanities Elective	0 (was 3)
Professional Electives	15 (was 12)

Effective Fall 2002

Sport Management

Add:

Sport Management 330 Sport Communication (3) An introduction to the communications industry and its relationship with sport. Students will explore cultural issues, such as gender and ethnicity, and their relationship to sport and media. The course will also provide students opportunities to develop practical communication skills and learn how media and sport interact.

Effective Fall 2002

Revise Program:

On page 104 of the 2001-2002 Undergraduate Catalog, revise the Sport Management requirements to read as follows:

SPORT MANAGEMENT

The Sport Management major is designed for students interested in working in the sport industry. The program combines Sport Management and Sport Studies with a minor in Business Administration. The program includes a semester-long internship experience.

	Hours Credit
Freshman	
English 101, 102	6
Communications 100 or Journalism 201	3
Foreign Language, Multicultural, or Integrative Electives	6
Computer Science 100	3
History Electives	6
Sport Management 100	1
Humanities Elective	3
Mathematics (to include 125 or 141)	6
Sophomore	
¹ Accounting 201, 202	5
¹ Economics 201	4
¹ Business Administration 201	4
Natural Science Electives	8
Sociology 291	3
Speech 210 or 240	3
³ Sport Management 250	3
¹ Statistics 201	3
¹ Sport Management 290	3
Junior	
¹ Finance 301	3
¹ Management 300	3
Humanities Elective	3
CSE 321 or CSE 372	3
¹ Marketing 300	3
General Elective	6
³ Sport Management 350	3
² Sport Management 390	3
Senior	
General Electives	6
⁴ Sport Management 490	12
Choose four from the following: Sport Management 330, 370, 380, 415, 440, 450 or Recreation 440	12
Total Hours 130	

¹Business minor requirement.

²Practicum courses in Sport Management are required prior to enrolling in internship.

³Admission to and retention in the Sport Management Major are contingent upon achieving and maintaining a 2.5 GPA.

⁴A 2.5 GPA is required for internship.

THEORY & PRACTICE IN TEACHER EDUCATION

English Education

Drop

461 Developing Reading Skills in Content Fields

Reading Education

Add:

461 Developing Reading Skills in Content Fields



MEMORANDUM

Associate Dean of Engineering
Academic Affairs
101 Perkins Hall
Knoxville, Tennessee 37996-2011
(423) 974-2454
FAX (423) 974-9879

To: Undergraduate Council
From: Fred Gilliam 
Subject: College of Engineering Agenda for January 17, 2002 Meeting
Date: December 20, 2001

A summary of the College of Engineering agenda for the January 17 meeting is shown below. The detailed proposals are attached. The faculty of the College of Engineering has approved each agenda item.

Chemical Engineering

Revise 5 courses
Add and crosslist 2 courses

Electrical and Computer Engineering

Revise the showcase curriculum for Electrical Engineering
Revise the showcase curriculum for Computer Engineering
Drop 13 courses
Add 12 courses
Revise 15 courses

Materials Science and Engineering

Drop 1 course
Add 1 course
Revise 3 courses

Mechanical and Aerospace Engineering and Engineering Science

Revise the showcase curriculum for Aerospace Engineering
Revise the showcase curriculum for Biomedical Engineering
Revise the showcase curriculum for Mechanical Engineering

Engineering Science courses

Drop 9 ES courses
Revise the prefix for 7 ES courses to AE, ME or BME

Aerospace Engineering courses

Add 2 AE courses
Revise 1 AE course

Biomedical Engineering courses

Drop 1 BME course
Add 3 BME courses
Revise 10 BME courses

Mechanical Engineering courses

Add 1 ME course
Revise 2 ME courses

Nuclear Engineering

Revise the Nuclear Engineering showcase curriculum
Revise the Nuclear Engineering with a concentration in Radiological Engineering showcase curriculum

COLLEGE OF ENGINEERING

Chemical Engineering

Revise Prerequisites and/or Corequisites:

- 301 Chemical Engineering Data Analysis (3) Prereq: Math 200 or permission of instructor. (Formerly: Prereq: Math 200)
Effective date: Fall 2002
- 310 Chemical Engineering Laboratory (3) Prereq: 240. Coreq: 230. (Formerly: Prereq: 240. Coreq: Chem 473.)
Effective date: Fall 2002
- 340 Mass Transfer and Separation Processes (3) Prereq: 200. Coreq: 230. (Formerly: Prereq: 200)
Effective date: Fall 2002
- 410 Chemical Engineering Laboratory II (3) Prereq: 310, 450, or permission of instructor. (Formerly: Prereq: 310, 450)
Effective date: Fall 2002
- 415 Computer Applications in Chemical Engineering (3) Prereq: 340. (Formerly: Prereq: none)
Effective date: Fall 2002

Add and Cross List:

- 483 Introduction to Reliability Engineering (3) (Same as Nuclear Engineering 483) Primary department is Nuclear Engineering.
Effective date: Fall 2002
- 484 Introduction to Maintenance Engineering (3) (Same as Nuclear Engineering 484) Primary department is Nuclear Engineering.

Effective date: Fall 2002

Electrical and Computer Engineering

On page 117 of the 2001-2002 *Undergraduate Catalog*, revise the Electrical Engineering showcase curriculum to:

Sophomore	
Mathematics 231, 241, 200	8
Physics 231, 232	7
Electrical & Computer Engineering 206, 255	8
Electrical & Computer Engineering 300	5
General Education Electives	6

Junior

Electrical & Computer Engineering 315, 325, 335, 341, 395	15
² Technical Elective	3
Electrical & Computer Engineering 316, 336, 342, 355	12
General Education Electives	6

Senior

Electrical & Computer Engineering 400	5
³ Electrical Engineering Senior Electives	13
² Technical Elective	3
Mechanical Engineering 331	3
¹ General Education Electives	6

Total: 134 hours

¹At Least 1 Course from the Professional and Ethical Responsibility Cluster, and at least 1 course from the Effective Communications Cluster.

²Engineering Technical Electives: MSE 201, MSE 410, ME 231, ME 321, ME 344, NE 342, IE 405.

³Acceptable Senior ECE Sequences: 415-416, 421-422, 431-432, 441-442, 443-446, 451-452, 471-472, 481-482

On page 116 of the 2001-2002 *Undergraduate Catalog*, revise the Computer Engineering showcase curriculum to:

Sophomore

Math 231, 241, 251	10
Physics 231, 232	7
Electrical & Computer Engineering 206, 255	8
Electrical & Computer Engineering 300	5
Computer Science 140	4

Junior

Electrical & Computer Engineering 315, 335	7
Computer Science 302, 360	6
Math 300	3
Electrical & Computer Engineering 316, 342, 355, 395	10
¹ General Education Electives	6

Senior

Electrical & Computer Engineering 451, 452	7
² Computer Engineering Senior Electives	12
¹ General Education Electives	12

Total: 131 hours

¹At Least 1 Course from the Professional and Ethical Responsibility Cluster, and at least 1 course from the Effective Communications Cluster.

²At least two of the CpE Senior Electives must be ECE courses. At most, one CpE Senior Elective can be from ECE 3xx. Approved CpE Senior Electives are: ECE 325, ECE 336, ECE 341, ECE 411, ECE 412, ECE 421, ECE 422, ECE 423, ECE 431, ECE 432, ECE 441, ECE 443, ECE 446, ECE 471, ECE 472, ECE 481, ECE 482, ECE 494, ECE 453, CS 370, CS 420, CS 430, CS 460, CS 470, CS 494, IE 405, ENGL 360.

Drop:

- 201 Circuits I (3)
- 202 Circuits II (4)
- 205 Electrical Engineering Computations (3)
- 251 Small Computer Systems (3)
- 310 Frequency-Domain Analysis of Signals and Noise (3)
- 311 Transient Analysis (3)
- 312 Linear System Analysis (3)
- 321 Electric Energy System Components (3)
- 331 Electronic Devices (3)
- 332 Electronic Circuits (3)
- 351 Introduction to Logic Design of Digital Systems (3)
- 411 Digital Signal Processing and Filter Design (3)
- 412 Linear Control System Design (4)

Effective date for dropping these 13 ECE courses is Fall, 2002.

Add:

- 206 Electrical Engineering Computations (4) Engineering problem solving and algorithm development by programming computers. Emphasis on software engineering, object-oriented design, building abstractions with procedures and data, and programming in a modern computer language. Includes Level 1 design projects which require laboratory work. Coreq: 255.
- 255 Introduction to Logic Design of Digital Systems (4) Standard codes, number systems, base conversions and computer arithmetic. Boolean algebra, minimization and synthesis techniques for combinational and sequential logic. Use of VHDL for logic synthesis. Implementation of circuits using SSI, MSI and LSI components. Includes Level 1 design projects which require laboratory work. Coreq: 206.
- 300 Circuits (5) Fundamental laws of circuit analysis. Ohm's Law, Kirchhoff's current and voltage laws, the law of conservation of energy, circuits containing independent and dependent voltage and current sources, resistance, conductance, capacitance and inductance analyzed using mesh and nodal analysis, superposition and source transformations, and Norton's and Thevenin's Theorems. Steady state analysis of DC and AC circuits. Complete solution for transient analysis for circuits with one and two storage elements. Complex frequency, sinusoidal forcing functions, and natural response. Resonance: general case, special cases in series and parallel circuits. Scaling: magnitude and

frequency. Admittance, impedance and hybrid parameters. Includes Level 1 design projects which require laboratory experiments. Prereq: All course work in the Freshman Engineering curriculum; grade of C or better in Mathematics 141, 142, 231 and Physics 231.

- 315 Signals and Systems I (3) Continuous- and discrete-time functions, function transformations, signal energy and power, solution of linear differential equations, system properties, convolution, continuous and discrete-time Fourier series, continuous and discrete-time Fourier transforms, Bode diagrams, correlation. Prereq: 300.
- 316 Signals and Systems II (3) Sampling theory, theory and application of Laplace transforms, feedback, root locus, gain and phase margin, theory and application of z Transforms, digital filters, discrete-time state variables. Prereq: 315.
- 325 Electric Energy System Components (4) Three phase systems, phasor analysis, ac power, ideal transformers, per unit notation. Magnetic circuits. Practical transformers: construction, equivalent circuits, single and three phase. DC machines: construction, connections, performance, control. Three phase induction motors: construction equivalent circuit, performance. Synchronous machines: construction, equivalent circuit, performance, parallel operation in power systems. Single-phase motors: construction, performance, starting methods. Includes Level 1 design projects which require laboratory work. Prereq: 300.
- 335 Electronic Devices (4) Semiconductor physics, theory of p-n junctions; diodes, field-effect transistors, and bipolar transistors; modeling of diode and transistor devices; analysis and design of diode switching and rectifier circuits; basic transistor switching circuits and single stage amplifiers; electronic circuit simulation using SPICE. Includes 1 credit laboratory work involving Level 1 design projects. Prereq: 300, Coreq: 315.
- 336 Electronic Circuits (3) Multistage transistor amplifier biasing; gain stages, and output stages; frequency and transient response of open loop linear amplifiers; fundamentals of integrated circuits, operational amplifier applications in basic feedback configurations; basic transistor switching circuits. Includes laboratory experiments and design projects. Prereq: 335.
- 355 Computing System Fundamentals (3) Introduction to machine-level computer organization and programming. Basic microprocessor architectures; memory architectures; structured assembly language programming; intra- and inter-computer communication; I/O systems; device drivers; multi- and distributed processor systems; issues in computer security. Includes Level 1 design projects which require laboratory work. Prereq: 206, 255.
- 415 Automatic Control Systems (4) Automatic control systems for physical systems with linear models. The methods presented include steady-state error analysis, stability, root locus, Nyquist theory, and Bode plots. Prereq: 316.
- 416 Computer Control Systems (4) Computer controlled systems using state variables and z-transform model representations with sampling theory and its effect on digital control design. Design of digital controllers in both the state space and frequency domain. Includes Level 2 design projects. Prereq: 316.
- 453 Computer Network Design (3) Principles of computer networking and software design of network protocol with an emphasis on the internet and TCP/IP protocol suite. Includes Level 1 design projects which require laboratory work. Prereq: 206.

Effective date for adding these 12 ECE courses is Fall, 2002.

Revise Course Title, Course Description and Prerequisites:

- 451 Computer Systems Architecture (3) Architecture and design of microcomputer systems with microprocessors or microcontrollers. Instruction set architectures, software interfaces, processor structures, memory hierarchy, interfacing. Includes Level 1 design projects which require laboratory work. Prereq: 355.
- 472 Introduction to Digital Image Processing (4) Mathematical foundations and practical techniques for digital manipulation of images, including image enhancement, restoration, compression, segmentation, and color image processing. Includes Level 2 design projects. Prereq: 316. Non majors require consent of instructor.

Revise Credit Hours, Course Description and Prerequisites:

- 443 Antennas and Propagation (3) Introduction to antenna theory including fundamental antenna concepts and parameters (directivity, gain, patterns, etc.) and signal propagation. Theory and design of linear and loop antennas, arrays, and other simple antennas. Includes Level 1 design projects. Prereq: 316, 341, 342.

Revise Course Title and Course Description:

- 452 Design of Digital Systems and Computers (4) Considerations for design and application of digital systems and computers; includes embedded systems concepts and design, CPU issues, interrupt structures, and I/O channels. Includes Level 3 design projects which require laboratory work. Prereq: 451.

Revise Course Description and Prerequisites:

- 341 Fields (3) Coulomb's law, Gauss' law, Ampere's law, Maxwell's equations for electrostatic and magnetostatic cases; Maxwell's equations for dynamic case, dynamic potentials, uniform plane wave propagation. Transmission lines. Prereq: 300, Math 241, and Physics 232.
- 342 Analog Communication Amplitude and Frequency Modulation (3) Probability and random variables, signal-to-noise ratio, propagation models, link budget analysis, bandpass signals, amplitude modulation, frequency modulation, spread-spectrum. Includes Level 1 design projects which require laboratory experiments. Prereq: 315.
- 441 Digital Communications (3) Quantization and pulse code modulation. Binary and M-ary signaling, spectra of line codes, link budget analysis, binary communication in the presence of noise, matched filtering and equalization, bandpass digital transmission, introduction to multiple access techniques. Includes Level I design projects.
- 471 Introduction to Pattern Recognition (3) Introduction to statistical decision theory, adaptive classifiers, and supervised and unsupervised learning. Students will explore the application of these techniques in areas of current interest such as face recognition, speech processing, remote sensing, data mining and bioinformatics. Includes Level 1 design projects. Prereq: 316. Non-majors require consent of instructor.
- 481 Power Electronics (3) Principles and characteristics of power semiconductor devices, single-phase and polyphase phase-controlled converters, converter control, ac voltage controller. Includes Level 1 design projects and laboratory work. Prereq: 316, 325, 332.

Revise Prerequisites:

- 395 Junior Seminar (1) Presentations and discussions related to professional development, including registration, ethics and current topics in electrical engineering. Prereq: 300. Satisfactory/No Credit.
- 400 Senior Design (5) A major design project that focuses the student's attention on professional practice, accumulated background of curricular components, and recent developments in the field. This major design emphasis is directed to topics within the field of electrical engineering. Includes Level 3 design projects which require laboratory work. Prereq: 316, 325, 332, 342, 355.
- 421 Electric Energy Systems (3) Structure and operation of the electrical energy grid; load flow; economic loading; planning; control; reliability. Balanced and unbalanced faults; system protection; system stability. Includes Level 1 design projects. Prereq: 316, 325.
- 423 Electric Machines (3) Principles of electromechanical energy conversion. Design procedures for AC and DC machine windings; construction and performance constraints. Effects of machine parameters on steady state and dynamic performances; the d-q model; reference frames. Includes Level 1 design projects. Prereq: 316, 325.
- 431 Operational Amplifier Circuits (3) Linear and non-linear active circuits using commercial operational amplifiers. Includes operational, instrumentation, isolation, bridge, rms and logarithmic converters, multipliers and function generators, rectifiers, references, active filters, modulation and demodulation, sinusoidal generators. Noise fundamentals and calculations in op amp circuits. Design for specified pole-zero functions. Emphasis on applications including transducer interfacing. Includes Level 1 design projects which require laboratory work. Prereq: 316, 336, 342.
- 446 Electromagnetic Compatibility (3) Principles and practices to avoid interference among and within electrical devices. Parameters and coupling for dipole, biconical, and log-periodic antennas. High frequency effects in circuit elements. Radiated and conducted emissions and susceptibility. Crosstalk, shielding, electrostatic discharge, and EMC regulations. Includes Level 1 design projects which require laboratory work. Prereq: 316, 341, 342.

Effective date for revisions to these 15 ECE courses is Fall, 2002.

Materials Science and Engineering

Drop:

- 475 Fracture-Safe Design (3)

Effective date: Fall 2002

Add:

- 370 Materials Processing (3) Application of fundamentals of mass and energy balances, mechanics, heat and mass transfer, chemical thermodynamics and kinetics to the processing of materials and manufacturing of products. A wide range of materials (metals, ceramics, polymers), geometries (bulk, fibers, films, coatings) and processes (casting, molding, extrusion, forging, powder processing, coating techniques, etc.) are studied as examples of processing technologies. Elementary ideas of process measurement and control. Prereq. 201, 320, ChE 200, and ChE 240, or equivalent. Sp

Effective date: Fall 2002

Revise Course Descriptions:

302 Mechanical Behavior of Materials I (3)
Tensile testing of metals, ceramics and polymers; deformation mechanisms in the various materials, incl. crystalline and non-crystalline forms; rubber elasticity, viscoelastic behavior, creep, time-temperature superposition in polymers; fatigue. Prereq: 201, 303, or consent of instructor. Sp

429 Introduction to Ceramic Matrix Composites (3)
Characteristics of composites, including ceramic matrix composites; macromechanics and materials design; overview of fabrication techniques; microstructural characterization; physical and mechanical property evaluation; current and potential applications. Prereq: 201 and ES 321, or equivalent.

472 Fundamental Principles of Composite Materials (3)
Physical principles basic to the design, manufacture and application of fiber reinforced polymers, metals and ceramics. Prereq: 302 or equivalent. F

Effective date for revisions to these 3 MSE courses is Fall, 2002

Mechanical and Aerospace Engineering and Engineering Science

Aerospace Engineering

On page 116 of the 2001-2002 *Undergraduate Catalog* revise the Aerospace Engineering showcase curriculum to:

	House Credit
Sophomore	
Aerospace Engineering 201	1
Mathematics 231, 241	7
Mathematics 200	1
Physics 231, 232	7
Mechanical Engineering 231, 321	6
Materials Science and Engineering 201	3
Mechanical Engineering 331	3
Economics 201	4
¹ General Education Elective	3
Junior	
Mechanical Engineering 332, 363, 391	9
Aerospace Engineering 341, 345, 351, 363, 370	15
Electrical and Computer Engineering 301, 302	6
¹ General Education Electives	6
Senior	
Mechanical Engineering 344, 451, 402	7
Aerospace Engineering 426, 429	6
Aerospace Engineering 422, 424, 425	9
Aerospace Engineering 431, 449	4
¹ General Education Electives	5
Total: 136 hours	

¹General Education Electives: See College of Engineering General Requirements.

Biomedical Engineering

On page 116 of the 2001-2002 *Undergraduate Catalog* revise the Biomedical Engineering showcase curriculum to:

	Hours Credit
Sophomore	
Physics 231, 232	7
Mathematics 200, 231, 241	8
Mechanical Engineering 231, 321	6
Biomedical Engineering 271	3
Biology 130, 140	8
Materials Science and Engineering 201	3
Junior	
Technical Electives	6
Electrical and Computer Engineering 301	3
Aerospace Engineering 341	3
Biomedical Engineering 300	3
Materials Science and Engineering 474	3
Economics 201	4
Mechanical Engineering 331	3
Biomedical Engineering 310, 320, 346	7
Philosophy 345	3
Senior	
Biomedical Engineering 430, 431, 435, 455	9
Engineering Elective	3
Mechanical Engineering 402	1
Biomedical Engineering 469	4
Biomedical Engineering Elective	3
¹ General Education Electives	11
Total: 135 hours	

¹General Education Electives: See College of Engineering General Requirements.

Mechanical Engineering

On page 117 of the 2001-2002 *Undergraduate Catalog* revise the Mechanical Engineering showcase curriculum to:

	Hours Credit
Sophomore	
Mathematics 200, 231, 241	8
Physics 231, 232	7
Mechanical Engineering 231, 321	6
Materials Science and Engineering 201	3
Mechanical Engineering 331	3
Economics 201	4
¹ General Education Electives	2
Junior	
Mechanical Engineering 332, 344, 345, 363, 365, 366, 391	21
Electrical and Computer Engineering 301, 302	6
Aerospace Engineering 341	3
¹ General Education Electives	6

Senior

Mechanical Engineering 402, 451, 466, 475, 449, 431	14
Mechanical Engineering 455 and 469 or 456 and 479	6
Technical Elective	3
Technical Elective (to be selected from ME 452, AE 351, IE 300)	3
¹ General Education Electives	6
Total: 135 hours	

¹General Education Electives: See College of Engineering General Requirements.

Engineering Science

Drop:

- 322 Mechanics of Materials II (3)
- 323 Mechanical Behavior of Materials (3)
- 423 Fracture-Safe Design (3)
- 426 Fundamental Principles of Composite Materials (3)
- 429 Introduction to Ceramic Matrix Composites (3)
- 442 Fluid Mechanics II (3)
- 453 Projects in Design (3)
- 454 Computational Mechanics In Design (3)
- 465 Dynamic Data Acquisition (3)

Effective date for dropping these 9 Engineering Science courses is Fall 2002.

Revise Course Prefix, Title, and Prerequisites

- 321 Mechanics of Materials (3) to ME 321 Mechanics of Materials (3)
Concepts of stress and strain; stress-strain relations; applications including axially loaded members, torsion of circular shafts, bending of beams and column stability. Prereq: Engineering Fundamentals 102. Coreq: Mathematics 241. F, Sp, Su.

Revise Course Prefix, Course Description, and Prerequisites:

- 475 Design of Artificial Internal Organs (3) to BME 475 Design of Artificial Internal Organs (3)
Design, development and evaluation of artificial internal organs; analysis of transport processes in therapeutic devices for design optimization; current research and development needs. Ethical considerations. Prereq: AE 341, Math 231.

Revise Course Prefix and Title:

- 494- Special Project in Biomedical Engineering (1-3, 1-3) to BME 494-495 Special Project in
495 Biomedical Engineering (1-3, 1-3)
Problems related to recent developments and practice. May be repeated once for credit.
Prereq: junior or senior standing, consent of instructor.

Revise Course Prefix and Prerequisites:

- 231 Dynamics (3) to ME 231 Dynamics (3)
Kinematics of rigid bodies; center of mass, kinetics of systems of particles; mass moments of inertia; kinetics of rigid bodies; Newton's laws, work-energy, impulse-momentum.
Prereq: Engineering Fundamentals 102, Mathematics 142. F, Sp, Su.
- 341 Fluid Mechanics I (3) to AE 341 Fluid Mechanics I (3)
Introduction to fluid flow concepts; hydrostatics; development of mass, momentum, and energy conservation laws in integral and differential form; dimensional analysis and similitude; viscous laminar and turbulent flows in pipes; introduction to boundary layers.
Prereq: ME 231, Mathematics 241. F, Sp, Su
- 452 Computational Mechanics (3) to ME 452 Computational Mechanics (3)
Integration of fundamental physical laws, mathematical methods and computational techniques necessary to develop engineering analysis and design capabilities. Finite element method. Prereq: 321, AE 341. F.

Effective date for revisions to these 7 Engineering Science courses is Fall 2002.

Aerospace Engineering

Add:

- 494- Selected Topics in Aerospace Engineering (1-4, 1-4) Problems and topics related to
495 developments and practice in aerospace engineering. Prereq: Consent of instructor. F,
Sp, Su

Effective date: Fall 2002

Revise Course Description:

- 429 Aerospace System Design (4) Synthesis and design of a complete aerospace system. Participation in team design effort including formal presentations and design report.
Prereq: 422, 425, 426. Sp.

Effective date: Fall 2002

Biomedical Engineering

Drop:

301 Biomedical Seminar I (1)

Effective date: Fall 2002

Add:

320 FDA Regulation of Biomedical Devices (1) Federal medical device law and regulation requirements; pre-market approval of new medical devices. Consent of instructor.

401 Thesis (3) Research and design problems in biomedical engineering with prior approval of a professor. May be repeated to a maximum of 6 hours. Prereq: senior standing or consent of instructor.

435 Bioinstrumentation (3) Nature of biomedical signals, transducers, signal processing, noise, telemetry and display devices. Prereq: 300 and ECE 301.

Effective date for adding these 3 BME courses is Fall, 2002

Revise Course Description and Title:

431 Biomedical Seminar (1) Professionalism, teamwork, P.E. licensing, patents and intellectual property, product liability, ethics and other issues related to biomedical engineering. Formal written and oral reports. Prereq: Senior standing.

Revise Course Description and Prerequisite:

300 Engineering Physiology (3) The study of human physiology, with an emphasis on making engineering decisions, and the development of analytical and computational models. Prereq: Consent of instructor.

310 Biomechanics (3) The application of statics, dynamics, the mechanics of materials and fluid mechanics to biomedical engineering problems. The special characteristics of living tissue and biological fluids and their incorporation into computational problems will be introduced. Prereq: ME 321, AE 341.

346 Design of Experiments (3) Application of statistics to data analysis and problem solving in biomedical engineering. Analysis of experimental results, development of models, design of experiments, quality control in manufacturing, and application of standards. Prereq: 271, MSE 201. Coreq: Math 200, 241.

430 Biomedical Engineering Laboratory (3) This course provides experience with the unique problems associated with making measurements and interpreting data in living systems; experiments may include mechanical testing of biological materials, imaging and physiological measurements. (EKG, EMG, ECG, etc.) Prereq: 310 and 346 or consent of instructor.

- 455 Biomedical Engineering Design I (2) Design of biomedical systems. Economics, optimization, reliability, patents and product liability. Participation in team design efforts: requires oral and written design reports. Prereq: 310. Coreq: 430 and MSE 474.

Revise Course Description:

- 271 Introduction to Biomedical Engineering (3) Application of the skills developed in Engineering Fundamentals for biomedical engineers. The role of biomedical engineers in the design of artificial organs, orthopedics implants, medical imaging, and other biomedical applications with an emphasis on developing communication and teaming skills. Prereq: EF 102.

Revise Prerequisite:

- 408 Cell and Tissue Engineering (3) Culture of mammalian cells. Effects of mechanical forces on cells. Tissue engineering of cardiovascular and orthopedic tissues. Prereq: 310 and Biol 140.
- 469 Biomedical Engineering Design II (4) Design of complete biomedical device: documentation includes complete specification, design calculations, preparation of working drawings, and cost analysis. Written and oral reports. Prereq: 455.
- 473 Applied Biomechanics (3) Applications of biomechanics to the industrial and orthopedic areas. Design of orthopedic implant devices; biomechanics of injury and protection. Prereq: ME 321. Coreq: 310 and MSE 474.

Effective date for revisions to these 10 BME courses is Fall, 2002

On Page 277 of 2001-2002 Undergraduate Catalog, insert index listing for Biomedical Engineering.

Mechanical Engineering

Add:

- 401 Thesis (3) Research and design problems in mechanical engineering with prior approval of instructor. Prereq: senior standing or consent of instructor.

Effective date: Fall 2002

Revise Course Description and Prerequisites:

- 391 Engineering Analysis (3) Numerical and analytical techniques are developed for problems arising in mechanical and aerospace engineering. Numerical methods address root finding, direct and indirect techniques for linear and nonlinear systems, interpolation, curve fitting, quadratures, solutions to ordinary- and partial-differential equations. Analytic methods include Fourier series, solutions to linear systems of differential equations and separation of variables. Computer projects are assigned for reinforcing classroom developments. Prereq: Engineering Fundamentals 101, Mathematics 200 and 231, F, Sp, Su.

Effective date: Fall 2002

Revise Course Description:

- 451 **Systems and Controls (3)** Analytical models of physical systems; comprised of combinations of mechanical, fluid, electrical, and thermal systems. Analysis and design of feedback control systems using transient and frequency response techniques, stability analysis, sampled data systems. Prereq: 345, EE 301, F, Sp.

Effective date: Fall 2002

Nuclear Engineering

On page 117 of the 2001-of the 2001-02 *Undergraduate Catalog*, revise the showcase curriculum in Nuclear Engineering to:

	Hours Credit
Sophomore	
Mathematics 231, 241	7
Physics 231, 232	7
Nuclear Engineering 200, 203	4
Electrical Engineering 301	3
Computer Science 102	4
¹ General Education Electives	9
Junior	
Mathematics 403	3
Physics 341	3
Nuclear Engineering 301, 304, 342, 351, 360, 431, 470	21
¹ General Education Electives	6
Senior	
Industrial Engineering 405	3
Mechanical Engineering 402	1
Nuclear Engineering 400, 403, 404, 406, 472 .	14
Materials Science and Engineering 201	3
² Technical Electives	6
¹ General Education Electives	3
Total: 131 hours	

¹General Education Electives must include one course from the Communications Cluster and one course from the Professional and Ethical Responsibility Cluster.

²Technical electives are selected from upper division mathematics and engineering courses and must be pre-approved by the department.

On page 117 of the 2001-2002 Undergraduate Catalog, revise the Nuclear Engineering with a concentration in Radiological Engineering showcase curriculum to:

**Nuclear Engineering
 Radiological Engineering Concentration**

	Hours Credit
Sophomore	
Mathematics 231, 241	7
Physics 231, 232	7
Nuclear Engineering 200, 203	4
Electrical Engineering 301	3
Computer Science 102	4
¹ General Education Electives	9
Junior	
Mathematics 403	3
Physics 341	3
Nuclear Engineering 301, 304, 342, 351, 431, 470	18
Biology 140	4
¹ General Education Electives	6
Senior	
Industrial Engineering 405	3
Mechanical Engineering 402	1
Nuclear Engineering 400, 403, 404, 406, 472	14
Biochemistry and Cellular and Molecular Biology (BCMB) 230	5
Statistics 251, BCMB 310, or Chemistry 350	3
² Technical Elective	3
¹ General Education Electives	3
Total: 134 hours	

¹General Education Electives must include one course from the Communications Cluster and one course from the Professional and Ethical Responsibility Cluster.


² Technical electives are selected from upper division mathematics, chemistry, and engineering courses and must be pre-approved by the department. Pre-Med, pre-vet, and pre-dentistry students must take Chemistry 360 and also Chemistry 369.



College of Human Ecology
Office of the Dean
1215 West Cumberland Avenue, Room 110
Knoxville, TN 37996-1900

MEMORANDUM

TO: Dr. Linda Tober and the Undergraduate Council

FROM: Dr. Delores Smith 
Assistant Dean

DATE: December 7, 2001

RE: Curricular Revisions for the College of Human Ecology

Attached are revisions to curricula and programs within the College of Human Ecology. These materials have been presented to the respective college committees and are now submitted to the Undergraduate Council. Following is a brief description of materials submitted:

1. In the Department of Child and Family Studies:
 - A. Revise the concentration name and showcase of Early Childhood Development.
 - B. Revise Name and Progression Requirements for Early Childhood Education for Teacher Licensure (Pre-K - 4) and Dual Licensure concentrations.
 - C. Revise Foreign Language requirements to include two semesters of American Sign Language and a demonstrated proficiency in a foreign language at the introductory level.
 - E. Revise description of CFS 422.
 - F. Add one course, CFS 472 Advanced Practicum in Inclusive Early Childhood Programs.
 - G. Revise prerequisite and co-requisite for CFS 405.
 - H. Revise Family Studies Business Pod to reflect revisions to Business courses implemented by the College of Business Administration.
 - I. Revise program progression standards.
2. In the Department of Consumer and Industry Services Management:
 - A. Revise Recreation Tourism Management's Commercial Recreation and Tourism Management Concentration to Recreation Tourism Management: Service Management.
 - B. Revise Recreation Tourism Management's Therapeutic Recreation concentration showcase to equalize hours for the Service Management and Therapeutic Recreation Degrees.
 - C. Revise showcases of Retail and Consumer Sciences, Hotel Tourism Management and Restaurant and Foodservice Management to incorporate revisions to the business minor implemented by the College of Business.
3. In the Department of Human Resource Development:
 - A. Revise the Teacher Education concentration to include the revisions to the business minor implemented by the College of Business Administration.
 - B. Revise the Training and Development showcase.

DEPARTMENT OF CHILD AND FAMILY STUDIES

REVISE: Prereq/Coreq

From: CFS 405 Development and Teaching of Interpersonal Skills (3) Development of basic interpersonal skills needed to work with families and other professionals. Skills include active listening, self-disclosure, relationship-building, and negotiation. Process of teaching interpersonal skills and group facilitation in community setting. Prereq: Family Studies majors only.

TO: CFS 405 Development and Teaching of Interpersonal Skills (3) Development of basic interpersonal skills needed to work with families and other professionals. Skills include active listening, self-disclosure, relationship-building, and negotiation. Process of teaching interpersonal skills and group facilitation in community setting. Prereq: CFS 360.

REVISE Description

From: CFS 422 Early Childhood Teaching Methods (6) Fundamentals of teaching language arts, math, science and social studies through a holistic, integrative approach to early childhood education. Focus on grades K-3. Field experience included. Prereq: 351 and admission to the Early Childhood Education licensure program.

TO: CFS 422 Early Childhood Teaching Methods (6) Fundamentals of teaching language arts, math, science and social studies through a holistic, integrative approach to early childhood education. Focus on grades K-4. Field experience included. Prereq: 351 and admission to the Early Childhood Education licensure program.

REVISE: Family Studies Business Pod

1. Drop Marketing 301 and Management 301.
2. Add Marketing 300 and Management 300.
3. Drop Business Law 301 and Management 321
4. Add Business Administration 201

Family Studies Major

For progression into the Family Studies major, students must meet the following criteria:

1. Complete at least 15 semester hours at UT.
2. Complete CFS 205 with a satisfactory grade. Application for progression while enrolled in CFS 205 is PREMATURE.
3. Attain a minimum grade of C in all CFS and HE courses.
4. Attain and maintain a cumulative GPA of 2.5/4.0 (transfer hours not included).

For Progression into the Family Studies Internship, students must meet the following criteria:

1. Progress into the major.
2. Complete courses in Family Studies Core.
3. Complete at least 90 hours (senior standing).
4. Complete an application to intern (during CFS 345 or CFS 360).
5. Complete CFS 405, HS 380 and one additional 3 hour course in the Interactional and Conflict Resolutions Skills pod.
6. Attain a minimum of C in all CFS courses and HE courses.
7. Earn and maintain a GPA of 2.5/4.0.

DEPARTMENT OF CONSUMER AND INDUSTRY SERVICES MANAGEMENT

ADD and Cross-list:

RTM119 Introduction to the Service Industry (3) Organization and basic operating systems for the career paths available in the hospitality, retail and recreation and tourism industries. Managerial competencies necessary for success in these fields. (Same as HRA and RCS 119)

REVISE Description and Cross-listing:

From: HRA119 Introduction to the Service Industry (3) Organization and basic operating systems for the career paths available in the hospitality and retail industries. Managerial competencies necessary for success in these fields. (Same as RCS 119)

TO: HRA119 Introduction to the Service Industry (3) Organization and basic operating systems for the career paths available in the hospitality, retail and recreation and tourism industries. Managerial competencies necessary for success in these fields. (Same as RCS and RTM 119)

REVISE Crosslisting:

From: RCS119 Introduction to the Service Industry (3) Organization and basic operating systems for the career paths available in the hospitality and retail industries. Managerial competencies necessary for success in these fields. (Same as HRA 119)

TO: RCS119 Introduction to the Service Industry (3) Organization and basic operating systems for the career paths available in the hospitality, retail and recreation and tourism industries. Managerial competencies necessary for success in these fields. (Same as HRA and RTM 119)

REVISE Description, Pre/Co Req. and Cross-listing:

From: HRA 311 Developing the Service Workforce (3) Personnel management procedures and policies to develop the service workforce. Topics include leading organizational change; labor cost; employee review process; retention issues. Prereq: HRA210/RCS210, or RCS211. (Same as RCS311).

TO: HRA 311 Developing the Service Workforce (3) Personnel management procedures and polices to develop the service workforce. Topics include leading organizational change; labor cost; employee review process retention issues. Same as RCS 311 and RTM 311. Prereq: HRA/RCS 210 or HRA 211 or RTM 310.

REVISE Crosslisting:

From: RCS 311 Developing the Service Workforce (3) (Same as HRA 311.)

TO: RCS 311 Developing the Service Workforce (3) (Same as RCS 311 and RTM 311.)

ADD and Cross-list:

RTM 311 Developing the Service Workforce (3) (Same as HRA 311 and RCS 311.)

REVISE Description, Pre/Coreq. and Cross-listing:

From: HRA 323 Diversity in the Service Marketplace (3) Survey of diversity in the service marketplace. Implications for the manager of a diverse workforce in the delivery of goods and services to a multiplicity of consumer groups. Prereq: RCS.HRA 311 (Same as RCS 323.)

TO: HRA 323 Diversity in the Service Marketplace (3) Survey of diversity in the service marketplace. Implications for the manager of a diverse workforce in the delivery of goods and services to a multiplicity of consumer groups.
Prereq: RCS/HRA/RTM311 (Same as RCS and RTM323.)

REVISE Crosslisting:

From: RCS 323 Diversity in the Service Marketplace (3) (Same as HRA323)

TO: RCS 323 Diversity in the Service Marketplace (3) Survey of diversity in the service marketplace. Implications for the manager of a diverse workforce in the delivery of goods and services to a multiplicity of consumer groups.
Prereq: RCS/HRA/RTM311 (Same as HRA and RTM323.)

ADD and Cross-list:

RTM 323 Diversity in the Service Marketplace (3) Survey of diversity in the service marketplace. Implications for the manager of a diverse workforce in the delivery of goods and services to a multiplicity of consumer groups.
Prereq: RCS/HRA/RTM311 (Same as HRA and RCS323.)

REVISE: Description, Pre/Coreq. and Cross-listing:

From: HRA 376 Strategies for Growth (3) Issues concerning achievement of business growth with focus upon the consumer, operational, and financial dimensions of the service industry. Prereq: Mkt 301; HRA 326 or RCS 310, RCS 341. (Same as RCS 376.)

TO: Strategies for Growth (3) Issues concerning achievement of business growth with focus upon the consumer, operational, and financial dimensions of the service industry. Prereq: Mkt. 300, HRA 326 or RTM 310, or RCS 310, RCS 341. (Same as RTM 376 and RCS 376.)

REVISE Crosslisting:

From: RCS 376 Strategies for Growth (3) (Same as HRA 376.)

TO: RCS 376 Strategies for Growth (3) (Same as RTM and HRA 376.)

ADD Crosslisting:

RTM 376 Strategies for Growth (3). (Same as RCS 376 and HRA 376.)

REVISE Pre/Coreq:

From: HRA 390 Professional Development (3) Development of skills important to career success; focus on business communications, time and stress management, motivational and negotiation skills. (Same as RCS 390.)

TO: HRA 390 Professional Development (3) Development of skills important to career success; focus on business communications, time and stress management, motivational and negotiating skills. Co/Prereq.: HRA326 or RCS 310 or RTM 310 and progression into the program. Same as RCS 390.

From: HRA 425 Legal Issues In Service Management (3) Legal rights and responsibilities of service industry management, their staff and clientele. Prereq: HRA/RCS 311, progression into the program or consent of the instructor. (Same as RCS 425.)

TO: HRA 425 Legal Issues in Service Management (3) Legal rights and responsibilities of service industry managers, their staff and clientele. Prereq: HRA/RCS/RTM 311 (Same as RCS 425.)

REVISE Prereq/Coreq

From: RTM 415 Development and Maintenance of Recreation, Tourism and Athletic Facilities (3) Principles of designing, planning, equipping, operating and maintaining various facilities. Elements of risk management and safety are incorporated into the design process. Prereq: RTM310, or consent of instructor. A-F, F.

TO: RTM 415 Development & Maintenance of Recreation, Tourism and Athletic Facilities (3) Principles of designing, planning, equipping, operating and maintaining various facilities. Elements of risk management and safety are incorporated into the design process. Prereq: RTM310, SM350 or consent of instructor.

REVISE Program Description for Recreation and Tourism Management

From: RECREATION AND TOURISM MANAGEMENT

The professional disciplines that comprise Recreation and Tourism Management (RTM) prepare students for management and leadership positions in many commercial recreation, sport and tourism enterprises. The RTM curriculum is one of only two programs in the state of Tennessee that is accredited in General Recreation and Par Association's Council on Accreditation.

The Commercial Recreation and Tourism Management concentration is designed to prepare students for employment in management and leadership positions in the recreation and tourism industry. Students will be competitive in securing employment in travel and tourism agencies, convention bureaus, resorts, corporate leisure services, sporting venues, city/county/state government and quasi public agencies, voluntary and religious organization. A business minor is built into the Commercial Recreation and tourism Management concentration.

The Therapeutic Recreation concentration prepares students for employment in management and leadership positions with agencies that deliver health care services. Students are successful in securing employment in psychiatric institutions, physical rehabilitation units, in drug and alcohol treatment centers, and in community based programs. In the Therapeutic Recreation concentration minors may be selected in Psychology and Child and Family Studies. Graduates fulfill the eligibility requirements for National Therapeutic Recreation Society certification.

A minimum of a 2.3 GPA is required for progression to and retention into the program.

TO: RECREATION AND TOURISM MANAGEMENT

The professional disciplines that comprise Recreation and Tourism Management (RTM) prepare students for management and leadership positions in Service Management (Commercial Recreation and Tourism enterprises), sport and tourism enterprises. The RTM curriculum is one of only two programs in the state of Tennessee that is accredited in General Recreation and the only program accredited in Therapeutic Recreation by the National Recreation & Park Association's Council on Accreditation.

The Service Management concentration is designed to assist students in gaining knowledge, responsibility and creativity to meet the changing environment of complex management in the recreation industry in the 21st century. A business minor is built into the degree requirements. Graduates are prepared for employment in travel and tourism agencies, convention bureaus, resorts, corporate sector, public/quasi public recreation agencies, voluntary and religious organizations.

The Therapeutic Recreation concentration prepares students for employment in management and leadership positions with agencies that deliver health care services. Graduates fulfill the eligibility requirements for National Therapeutic Recreation Society certification. Graduates are successful in securing employment in psychiatric institutions, physical rehabilitation units, drug and alcohol treatment centers, and community based programs.

A minimum of a 2.3 GPA is required for progression to and retention into the program.

REVISE Recreation and Tourism Management Commercial Recreation and Tourism Management Concentration:

From:

**RECREATION AND TOURISM MANAGEMENT:
 COMMERCIAL RECREATION AND TOURISM MANAGEMENT CONCENTRATION
 (Accredited in General Recreation
 by NRPA/AALR)**

	Hours Credit
Freshman	
English 101, 102	6
History Electives	6
Human Resource Development 210	3
Humanities Elective	3
Recreation and Tourism Management 201	4
Math 125 or 141	3-4
Math Elective	3
Sophomore	
Advertising 250 or Journalism 201 or 280	3
Economics 201	4
Statistics 201	3
Natural Science Electives	6-8
Speech 210 or Speech 240	3
Accounting 201, 202	6
Recreation and Tourism Management 290	2-3
Recreation and Tourism Management 320	3
Junior	
¹ Finance 301	3
Child and Family Studies 220 or Retail and Consumer Sciences 341	3
Health 310	3
Recreation and Tourism Management 390	2-3
Recreation and Tourism Management 310, 415, 440	9
¹ Management 301	3
¹ Business Elective 300 level or above	3
¹ Marketing 301	3
² Hotel and Restaurant Administration 324, 335, 423, 425; Forestry 321, 423; Retail and Consumer Sciences 411	6
Senior	
Electives	11
Recreation and Tourism Management 410, 430, 470	9
Recreation and Tourism Management 490	12
Human Ecology 410	3
Total: 128 hours	

¹ All upper division (300 level or above) business course work must be taken at UT.

² Select any two courses from this book.

To:

**RECREATION AND TOURISM MANAGEMENT:
SERVICE MANAGEMENT CONCENTRATION
(ACCREDITED IN GENERAL RECREATION BY NRPA/AALR)**

	Hours
Freshman	
English 101, 102	6
History Electives	6
Human Resource Development 210	3
Humanities Elective	3
Math 125 or 141	3
Math Elective	3
Recreation and Tourism Management 119	3
Recreation and Tourism Management 201	4
Sophomore	
Accounting 201, 202	5
Economics 201	4
Statistics 201	3
Business Administration 201	4
Natural Science Electives	6-8
Recreation and Tourism Management 290	2-3
Recreation and Tourism Management 320	3
Speech 210 or Speech 240	3
Health 310	3
Junior	
Retail and Consumer Science 341	3
¹ Marketing 300	3
¹ Finance 301	3
Recreation and Tourism Management 310	3
Recreation and Tourism Management 311	3
Recreation and Tourism Management 323	3
Recreation and Tourism Management 376	3
Recreation and Tourism Management 390	2-3
Hotel and Restaurant Administration 390	3
² Recreation and Tourism Management 415, 440, 470, Forestry 321, 423, Hotel and Restaurant Administration 324, 335, 423, 424, Retail and Consumer Sciences 411	6
Senior	
Electives	8
Recreation and Tourism Management 410	3
Hotel and Restaurant Administration 425	3
Human Ecology 410	3
Management 300	3
Recreation and Tourism Management 490	12
Total Hours:	128 - 131

¹ All upper division (300 level or above) business course work must be taken at UT.

² Select any two courses from this block.

NOTE

- A. 2.3 GPA is required for college affiliation and progress in the major
- B. Rec. 290 and 390 are for recreation majors only and are required prior to enrolling in internship.
- C. 2.3 GPA is required for enrollment in RTM 310 and RTM 490.
- D. 2.3 GPA is required for internship and for declaring a major in Recreation and Tourism Management
- E. A minimum of 48 upper division hrs are required for graduation.

**REVISE Recreation and Tourism Management Commercial Recreation and
 Tourism Management Concentration:**

From:

**RECREATION AND TOURISM MANAGEMENT:
 THERAPEUTIC RECREATION CONCENTRATION
 (Accredited in General Recreation and Therapeutic Recreation by NRPA/AALR)**

	Hours Credit
Freshman	
English 101, 102	6
Math Electives	6
History Electives	6
Human Resource Development 210	3
Child and Family Studies 220 or Retail and Consumer Sciences 341	3
Recreation and Tourism Management 201	4
Psychology 110	3
Sophomore	
Classics 273	3
Child and Family Studies 210	3
Ecology and Evolutionary Biology, or Biology Electives	3-4
Ecology and Evolutionary Biology 230	5
Speech 210 or 240	3
Human Ecology 410	3
Health 310	3
Recreation and Tourism Management 290	2-3
Recreation and Tourism Management 320, 325	6
Philosophy 345	3
Junior	
Exercise Science 332 or Ecology and Evolutionary Biology 240	3
Psychology 330	3
Sociology or Psychology Electives	6
¹ Professional Support Course Electives	6
Electives	5
Recreation and Tourism Management 310, 425	6
Recreation and Tourism Management 390	2-3
Senior	
Exercise Science 411	3
Electives	8
Recreation and Tourism Management 410, 420, 430	9
Recreation and Tourism Management 490	12
Total: 128 hours	

¹Courses must be in addition to those specified for the major and must be selected from: Business Administration; Child and Family Studies; Health, Leisure and Safety Sciences; Hotel and Restaurant Administration; Human Resource Development; Human Services; Rehabilitation and Deafness; Sociology; and Psychology.

To:

**RECREATION AND TOURISM MANAGEMENT:
THERAPEUTIC RECREATION CONCENTRATION
(Accredited in General and Therapeutic Recreation by NRPA/AALR)**

Freshman	Hours Credit
English 101, 102	6
Math Electives	6
History Electives	6
Human Resource Development 210	3
Child and Family Studies 220	3
Recreation and Tourism Management 201	4
Psychology 110	3
Sophomore	
Classics 273	3
Child and Family Studies 210	3
Ecology & Evolutionary Biology, Biology Electives	3-4
Ecology and Evolutionary Biology 230	5
Speech 210 or 240	3
Health 310	3
Recreation and Tourism Management 290	2-3
Recreation and Tourism Management 320, 325	6
Philosophy 345	3
Electives	3
Junior	
Exercise Science 332 or Ecology and Evolutionary Biology 240	3
Psychology 330	3
Sociology or Psychology Electives	6
¹ Professional Support Electives	6
Recreation and Tourism Management 310 and 425	6
Recreation and Tourism Management 390	2-3
Electives	3
² Recreation and Tourism Management 450, Psychology 409, Health 406, 435, Sociology 414, Special Education 470	3
Senior	
Human Ecology 410	3
Exercise Science 411	3
Recreation and Tourism Management 311, 410, 420	9
Recreation and Tourism Management 490	12
Electives	4
Total Hours 128-131	

¹Courses must be in addition to those specified for the major and must be selected from: Business Administration, Child and Family Studies, Health and Safety Sciences, Recreation and Tourism Management, Human Services, Rehabilitation and Deafness, Sociology, and Psychology.

² Select any one course from this block.

NOTE:

- A. 2.3 GPA is required for college affiliation and progress in the major.
- B. Rec. 290 & 390 are for recreation majors only and are required prior to enrolling in internship.
- C. 2.3 GPA is required for enrollment in RTM 310 and RTM 490.
- D. 2.3 GPA is required for internship and for declaring a major in Recreation and Tourism Management.
- E. A minimum of 48 upper division hours required for graduation.

Revise Retail and Consumer Sciences showcase to reflect revisions to business minor.
 From:

RETAIL AND CONSUMER SCIENCES

	Hours Credit
Freshman	
English 101, 102	6
Natural Science Electives	6-8
Math 119 or 123 and 125	6
Humanities Electives	6
History Elective ¹	3
Retail and Consumer Sciences 119	3
Elective	3
Sophomore	
History Elective	3
Accounting 201, 202	6
Statistics 201	3
Economics 201	4
Psychology 110	3
Speech 240	3
Human Resource Development 210	3
Retail and Consumer Sciences 210, 341	6
Junior	
Marketing 301	3
Management 301	3
Finance 301	3
Logistics 301	3
Retail and Consumer Sciences 310, 311, 323, 376, 390	16
¹ Retail and Consumer Sciences Elective	3
Retail and Consumer Sciences 422	6
Senior	
Human Ecology 410	3
Retail and Consumer Sciences 410, 425	6
¹ Retail and Consumer Sciences Electives	6
¹ Retail and Consumer Sciences 482 or 492 and 485 or Retail and Consumer Science Electives	12
Total: 128-130 hours	

¹RCS Electives: Select 9 or 21 hours from the following courses: RCS350, 411, 412, 415, 421, 450, 476, 493, 495, TS 220, HE 310.

To:

RETAIL AND CONSUMER SCIENCES

Freshman	Hours Credit
English 101,102	6
Natural Science Electives	6-8
Math 119, or 123, and 125	6
Humanities Electives	6
History Elective	3
Retail and Consumer Sciences 119	3
Elective	3
Sophomore	
History Elective	3
Accounting 201, 202	5
Statistics 201	3
Economics 201	4
Psychology 110	3
Business Administration 201	4
Human Resources Development 210	3
Retail and Consumer Sciences 210, 341	6
Junior	
Marketing 300	3
Management 300	3
Finance 301	3
Speech 240	3
Retail and Consumer Sciences 310, 311, 323, 376, 390	16
¹ Retail and Consumer Sciences Elective	3
Retail and Consumer Sciences 422	6
Senior	
Human Ecology 410	3
Retail and Consumer Sciences 410, 425	6
¹ Retail and Consumer Sciences Electives	6
¹ Retail and Consumer Sciences 482 or 492 and 485 or Retail and Consumer Sciences Electives	12

Total Hours 128 - 130

¹RCS Electives: Select 9 or 21 hours from the following courses: RCS 350, 411, 412, 421, 450, 476, 493, 495, TS 220, HE 310

REVISE the Hotel Tourism Management showcase to reflect revisions to the business minor.

From:

HOTEL/TOURISM MANAGEMENT

	Hours Credit
Freshman	
English 101, 102	6
History Elective	3
Natural Science Elective	6-8
Math 119 or 123, and 125	6
Humanities Electives	6
Hotel and Restaurant Administration 119	3
Electives	3
Sophomore	
History Elective	3
Accounting 201, 202	6
Statistics 201	3
Economics 201	4
Psychology 110	3
Speech 240	3
Human Resource Development 210	3
Retail and Consumer Sciences 341	3
Hotel and Restaurant Administration 211	3
Junior	
Marketing 301	3
Management 301	3
Finance 301	3
² Business Elective	3
Hotel and Restaurant Administration 326, 311, 323, 376, 390, 210	18
Hotel and Restaurant Administration 421	6
Senior	
Human Ecology 410	3
Hotel and Restaurant Administration 424, 425, 429, 450	12
¹ Hotel and Restaurant Administration Electives	4
Hotel and Restaurant Administration 481, 491 and 486	12

Total: 128-130 hours

¹ Hotel and Restaurant Administration electives: select 4 hours from the following courses:
 Hotel and Restaurant Administration 324, 335, 341, 423, 445, HE 310.

² Select any 3 upper division credits from courses offered by the College of Business Administration.

To:

HOTEL TOURISM MANAGEMENT

Freshman	Hours Credit
English 101,102	6
History Elective	3
Natural Science Elective	6-8
Math 119, or 123, and 125	6
Humanities Electives	6
Hotel and Restaurant Administration 119	3
Electives	3
Sophomore	
History Elective	3
Accounting 201, 202	5
Statistics 201	3
Economics 201	4
Psychology 110	3
Business Administration 201	4
Human Resources Development 210	3
Retail and Consumer Sciences 341	3
Hotel and Restaurant Administration 211	3
Junior	
History Elective	3
Marketing 300	3
Management 300	3
Finance 301	3
Speech 240	3
Hotel and Restaurant Administration 210, 326, 311 323, 376, 390	18
Hotel and Restaurant Administration 421	6
Senior	
Human Ecology 410	3
Hotel and Restaurant Administration 424, 425,	12
¹ Hotel and Restaurant Administration Electives	4
Hotel and Restaurant Administration 481 or 491 and 486	12

Total Hours 128 - 130

Hotel and Restaurant Administration electives:
Select 4 hours from the following courses: HRA 324, 335, 423, 445, HE 310

REVISE the Restaurant and Foodservice Management curriculum to reflect revisions in the business minor.

From:

RESTAURANT AND FOODSERVICE MANAGEMENT
Hours Credit

Freshman

English 101, 102	6
Economics 201	4
Psychology 110	3
Speech 240	3
Human Resource Development 210	3
Retail and Consumer Sciences 341	3
Hotel and Restaurant Administration 210	3

Junior

History Elective	3
Marketing 301	3
Management 301	3
Finance 301	3
² Business Elective	3
Hotel and Restaurant Administration 326, 311, 323, 341, 376, 390	16
Hotel and Restaurant Administration 420	6

Senior

Human Ecology 410	3
Hotel and Restaurant Administration 410, 425, 445	9
¹ Hotel and Restaurant Administration Electives	3
Hotel and Restaurant Administration 480 or 490 and 485	12

Total: 128-130 hours

¹Hotel and Restaurant Administration electives: select 3 hours from the following courses:
 HRA 211, 324, 335, HE 310, RCS 411

²Select any 3 upper division credits from courses offered by the College of Business Administration.

To:

RESTAURANT AND FOODSERVICE MANAGEMENT

Freshman	Hours Credit
English 101,102	6
Natural Science Elective	6-8
Math 119, or 123, and 125	6
Humanities Electives	6
Hotel Restaurant Admin 101, 119	6
Nutrition 100	3
Sophomore	
History Elective	3
Accounting 201, 202	5
Statistics 201	3
Economics 201	4
Psychology 110	3
Business Administration 201	4
Human Resources Development 210	3
Retail and Consumer Sciences 341	3
Hotel and Restaurant Administration 210	3
Junior	
History Elective	3
Marketing 300	3
Management 300	3
Finance 301	3
Speech 240	3
Hotel and Restaurant Administration 326, 311, 323, 341, 376, 390	16
Hotel and Restaurant Administration 420	6
Senior	
Human Ecology 410	3
Hotel and Restaurant Administration 410, 425, 445	9
¹ Hotel Restaurant Administration Electives	3
Hotel and Restaurant Administration 480 or 490 and 485	12

Total Hours 128 - 130

Hotel and Restaurant Administration electives:
select 3 hours from the following courses: HRA 211, 324, 335, HE 310, RCS 411

Department of Human Resource Development

REVISE Prereq/Coreq

From: HRD 285 Introduction to Human Resource Development (3) This online course will be an overview of online instructional methodology; issues and problems associated with employee training and development; strategic training; needs assessment; learning theories and program design; transfer of training; career development; organizational development, employee empowerment and reorganization. Prerequisite: HRD 210, F, Sp

TO: HRD 285 Introduction to Human Resource Development (3) This online course will be an overview of online instructional methodology; issues and problems associated with employee training and development; strategic training; needs assessment; learning theories and program design; transfer of training; career development; organizational development, employee empowerment and reorganization. Prereq or CoReq: HRD 210.

DROP:

HRD 320 Program Planning for Training, Development & Education (3)

ADD:

HRD335 Program Planning for Training, Development & Education (3) The third in a series of four online courses designed to prepare instructors for the learning environment providing skills and knowledge in analyzing, designing, developing implementing, and evaluating educational programs. Each student will plan an educational program. Prereq: HRD 330.

REVISE description and prerequisite

From: HRD 325 Development of Instructional Resources (3) The second in a series of four online core courses designed to prepare instructors for the learning environment. It includes the design and development of instructional materials, the preparation of teaching aids, and sequencing instruction based on the Instructional Systems Development (ISD) model. Each student will develop a training module. Prerequisite: HRD320. E

TO: HRD 325 Development of Instructional Resources (3) The first in a series of four online core courses designed to prepare instructors for the learning environment. It includes the design and development of instructional materials, the preparation of teaching aids, and sequencing instruction based on the Instructional Systems Development (ISD) model. Each student will develop a training module. Prerequisite: HRD210

From: HRD 479 Internship in Human Resource Development (3-9) Assessing, planning, implementing and evaluating the effectiveness of training programs in an industrial setting. May be repeated to a maximum of 9 semester hours. Satisfactory/No Credit Only. E.

TO: HRD 479 Internship in Human Resource Development (3-9) Enhancement of the knowledge gained in the classroom applied in a Human Resources and/or Training Department in various business areas. The internship is the capstone experience to be completed after: HRD 452, 473 and 475 and all other prerequisites. Students who have only 473 or 475 remaining may petition the intern coordinator to take the remaining course concurrent with 479. Must be a senior with a GPA of 2.7. May be repeated to a maximum of 9 semester hours. Satisfactory/No Credit Only.

REVISE Description

From: HRD 330 Instructional Strategies and Techniques (3) The third in a series of four online core courses focuses on methods and techniques of facilitating learning through application of communication theory, teaching and training concepts, and delivery methods and skills. Students will provide demonstrated competence in facilitated learning as a final course product. Prerequisite: HRD 325. E

TO: HRD 330 Instructional Strategies and Techniques (3) The second in a series of four online core courses focuses on methods and techniques of facilitating learning through application of communication theory, teaching and training concepts, and delivery methods and skills. Students will provide demonstrated competence in facilitated learning as a final course product. Prerequisite: HRD 325

REVISE Prerequisite:

From: HRD 471 Principles of Supervision/Leadership (3) This online course examines management problems such as motivation, communication, interpersonal relationships, and leadership. Prerequisite: HRD 210 or equivalent. Sp

TO: HRD 471 Principles of Supervision/Leadership (3) This online course examines management problems such as motivation, communication, interpersonal relationships, and leadership. Prerequisite: HRD 285

**REVISE Showcase for HRD Teacher Education Concentration:
 Business and Marketing, Family and Consumer Sciences, Technology Education)**

**From:
 TEACHER EDUCATION CONCENTRATION
 (Business/Marketing, Family and Consumer Sciences, Technology)
 Hours Credit**

Freshman	
English 101, 102	6
¹ Mathematics Electives	6
² Natural or Physical Science Electives	6-8
Human Resource Development 210	3
Psychology 110	3
³ Teaching specialty courses	3
Sophomore	
History Electives	6
Humanities Electives	6
Economics 201	4
Child and Family Studies 213	3
² Child and Family Studies 220 or Retail and Consumer Sciences 341	3
³ Teaching Specialty Courses	9
Junior	
Human Resource Development 201	2
Human Resource Development 320, 325	6
³ Teaching Specialty Courses	15
⁴ Electives	9
Senior	
Human Resource Development 330, 452	6
⁵ Education 400, 401	5
Human Ecology 410	3
³ Teaching Specialty Courses	15
⁴ Electives	4
Undergraduate Total: 124 hours	

The following courses are taken during the post baccalaureate, Professional Year:

Professional Year	
Human Ecology 574	2
Human Ecology 575	12
Human Ecology 591	1
Human Resource Development 504, 521, 522	9
Graduate Total: 24 hours	

¹Students seeking licensure in Business and Marketing Education must take Math 125 and one other math course.

²Students seeking licensure in Family and Consumer Science Education must take Chemistry 100, Biology 102, and CFS 220. Technology Education students are encouraged to take Physics.

³**Family and Consumer Science Education:** CFS 211, 240,312,345,360,420,430; Nutr 100,302; HRA 101; TS 220; RCS 341,350; Speech 210. (42 hours). **Business and Marketing Education:** Acct 201, 202; Finance 301; Bus Law 301; Management 301; Marketing 301,310,420; HRD 336,415,430,434; RCS 350,421; an Economics Elective and Statistics 201(48 hours). **Technology Education:** Comm 100; Logistics 301,302; HRD 161, 163, 300, 305, 306, 361, 370, 371, 441, 442; RCS 350. (42 hours.)

⁴See department for a list of suggested electives.

⁵Requires admission to Teacher Education.

(NOTE: Students must earn at least a grade of C in teaching specialty courses and required HRD courses.)

To:
TEACHER EDUCATION CONCENTRATION
(Business and Marketing, Family and Consumer Sciences, Technology Education)

Freshman	
English 101, 102	6
¹ Mathematics Electives	6
² Natural or Physical Science Electives	6-8
Human Resource Development 210	3
Psychology 110	3
³ Teaching specialty courses	3
Sophomore	
History Electives	6
Humanities Electives	6
Economics 201	4
Child and Family Studies 213	3
² Child and Family Studies 220 or Retail and Consumer Sciences 341	3
³ Teaching Specialty Courses	9
Junior	
Human Resource Development 201	2
Human Resource Development 325, 330	6
³ Teaching Specialty Courses	15
⁴ Electives	4
Senior	
Human Resource Development 335, 452	6
⁵ Education 400, 401, 402	6
Human Ecology 410	3
³ Teaching Specialty Courses	15
⁴ Electives	4

Undergraduate Total: 125 hours

The following courses are taken during the post baccalaureate, Professional Year:

Professional Year	
Human Resource Development 574	2
Human Resource Development 575	12
Human Resource Development 591	1
Human Resource Development 504, 521, 522	9

Graduate Total: 24 hours

¹Students seeking licensure in Business and Marketing Education must take Math 125 and one other math course.

²Students seeking licensure in Family and Consumer Sciences Education must take Chemistry 100, Biology 102, and CFS 220. Technology Education students are encouraged to take Physics.

³**Family and Consumer Sciences Education:** CFS 211, 240, 312, 320, 345, 360, 420, 430; HE 310; Nutr 100, 302; HRA 101; TS 220; RCS 341, 350; Speech 210. (48 hours)

Business and Marketing Education: *Bus Admin 201; Acct 201, 202; Finance 301; Bus Law 301; Management 300; Marketing 300, 310, 420; HRD 336, 415, 430, 434; RCS 350, 421; an Economics Elective and Statistics 201 (51 hours).* Technology Education: Comm 100; HRD 161, 163, 300, 305, 306, 361, 370, 371, 441, 442; RCS 350, **6 hours of technical electives.** (42 hours)

⁴See department for a list of suggested electives.

⁵Requires admission to Teacher Education.

(NOTE: Students must earn at least a grade of C in teaching specialty courses and required HRD courses.)

REVISE the showcase for Training and Development Concentration

From:

TRAINING AND DEVELOPMENT CONCENTRATION

	Hours Credit
Freshman	
English 101, 102	6
Mathematics Electives	6
Natural or Physical Science Electives	6-8
Human Resource Development 210	3
Psychology 110	3
Electives	3
Sophomore	
History Electives	6
Humanities Electives	6
Economics 201	4
Child and Family Studies 220 or Retail and Consumer Sciences 341	3
¹ Support Courses	12
Junior	
Human Resource Development 320, 325	6
Human Resource Development 420, 455	6
¹ Support Courses	12
Electives	6
Senior	
Human Resource Development 330, 452	6
Human Resource Development 471, 473, 475	9
Human Ecology 410	3
Human Resource Development 479	3-6
¹ Support Courses	6
² Electives	11

¹²Total: 125 hours

¹**Training and Development Support Courses:** Courses must be in addition to those specified for the major and must be selected from: Business Administration electives, Speech (210, 220, 320, 330, 420, 440), Psychology (320, 360, 409, 430, 434, 440), Public Relations 270, Nutrition 100, Health (330, 375, 410), Public Health 410, Recreation electives, Child and Family Studies electives, Retail and Consumer Sciences electives, or Hotel and Restaurant Administration electives. At least three areas must be represented with a maximum of 9 hours from any one area or courses must focus on a specialized technical area for which training and development programs exists in business and industrial settings. Approval for this requirement is not assumed and is contingent upon petition to the department. HRD 350 and 351 may substitute for some or all of this requirement. (Junior standing required for petitioning.)

²See department for a list of suggested electives.

To:

TRAINING AND DEVELOPMENT CONCENTRATION

Freshman	Hours Credit
English 101, 102	6
Mathematics Electives	6
Natural or Physical Science Electives	6-8
Human Resource Development 210	3
Psychology 110	3
Electives	3
Sophomore	
History Elective	6
Humanities Electives	6
Economics 201	4
Child and Family Studies 220 or Retail and Consumer Sciences 341	3
¹ Support Courses	12
Junior	
Human Resource Development 285	3
Human Resource Development 325, 330	6
Human Resource Development 420, 455	6
¹ Support Courses	12
Electives	6
Senior	
Human Resource Development 3xx , 452	6
Human Resource Development 471, 473, 475	9
Human Ecology 410	3
Human Resource Development 479	3-6
¹ Support Courses	6
Electives	11

Undergraduate Total: **128 hours**

¹**Training and Development Support Courses:** Courses must be in addition to those specified for the major and must be selected from: Business Administration electives, Speech (210, 220, 320, 330, 420, 440), Psychology (320, 360, 409, 430, 434, 440), Public Relations 270, Nutrition 100, Health (330, 375, 410), Public Health 410, Recreation electives, Child and Family Studies electives, Retail and Consumer Sciences electives, or Hotel and Restaurant Administration electives. At least three areas must be represented with a maximum of 9 hours from any one area or courses must focus on a specialized technical area for which training and development programs exists in business and industrial settings. Approval for this requirement is not assumed and is contingent upon petition to the department. HRD 350 and 351 may substitute for some or all of this requirement. (Junior standing required for petitioning.)

**REQUESTED CHANGES BY THE COLLEGE OF NURSING
12/18/01**

Page 189 of current Undergraduate Catalog:

Revise description from:

N201 Introduction to Nursing (3) History, philosophy, and scope of nursing practice with emphasis on the holism of persons, standards for professional practice, assessing for health risk factors, and an overview of the nursing process and nursing theories.

To:

N201 Introduction to Nursing (3) History, philosophy, and scope of nursing practice with emphasis on the holism of persons, standards for professional practice, ~~assessing for health risk factors~~, and an overview of the nursing process and nursing theories.

From:

N319 Pathophysiology of Health Deviations (4) Application of physiological concepts to health promotion, maintenance, deviations, and restoration. Emphasis on interactions of body systems, psychoneuroimmunology, and impact of disease processes on the human body. F

To:

N319 Pathophysiology of Health Deviations (4) Application of physiological concepts to health promotion, maintenance, deviations, and restoration. **Introduction to psychoneuroimmunology.** Emphasis on interactions of body systems, ~~psychoneuroimmunology~~, and impact of disease processes on the human body. F

**COURSES NOT OFFERED IN FOUR OR MORE YEARS
TO BE DROPPED EFFECTIVE FALL 2002**

COLLEGE OF ARTS AND SCIENCES

ARABIC	321	SPKN LEB / PAL ARABIC
FRENCH	401	SIMUL FR/ENG TRANSLAT
FRENCH	416	SURV FRANCOPHONE LIT
GEOGRAPHY	375	GEOG OF SOVIET UNION
MATH	121	CALCULUS A
MATH	122	CALCULUS B
MUSC ENSBL	314	BRASS CHOIR
MUSC ENSBL	356	LABORATORY BAND
MUSC VOICE	120	CLASS VOICE II
SOCIOLOGY	363	THE CITY

COLLEGE OF BUSINESS ADMINISTRATION

LOG & TRANS	497	HONORS: EXEC IN RES
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COLLEGE OF HUMAN ECOLOGY

HTL / RST AD	497	HONORS: HTL / REST ADM
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COLLEGE OF EDUCATION

EDUCATION	403	PROF ST: TCHNG / CURRIC
PHYS EDUC	222	PADDLEBALL
PHYS EDUC	233	RACQUETBALL II
PHYS EDUC	250	TUMBLING II

COLLEGE OF ENGINEERING

AERO ENGR	362	DYNAMICS / VIBRATIONS
ENGR SCI	423	FRACTURE-SAFE DESIGN
MT SC & ENG	475	FRACTURE-SAFE DESIGN

COLLEGE OF NURSING

NURSING	453	ONCOLOGY NURSING
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ACADEMIC REVIEW REVISION

On page 31 of the **Undergraduate Catalog** revise the last sentence of the section “Academic Review” to read:

A student dismissed from the University may apply for readmission to the University after a minimum of **one calendar year** away from the University.

Formerly: ...after a minimum of **two semesters (with summer considered a semester)** away from the University.

Rationale: The period of one calendar year is a clear statement of how long a student should be dismissed from the university, is consistent with the policies of peer institutions (as well as with UT's policies), and provides better opportunity for reconsideration of academic goals, and academic and career planning. The revision of policy was passed without dissent by the Committee on Advising.

Effective: Fall 2002