

University of Tennessee, Knoxville

2010-11 'Sustainability' Courses

This document contains a listing of 'sustainability-focused' and 'sustainability-related' undergraduate and graduate courses offered at UT Knoxville during the 2010-11 school year.

Sustainability-focused courses concentrate on the concept of sustainability, including its social, economic, and environmental dimensions, or examine an issue or topic using sustainability as a lens.

Sustainability-related courses incorporate sustainability as a distinct course component or module, or concentrate on a single sustainability principle or issue (socioeconomics, environment concerns, etc.).

This list was derived from the online UT Knoxville course catalog, available at <http://catalog.utk.edu/>. Course descriptions may be accessed by clicking on hyperlinks.

Please email comments and corrections to Gordie Bennett, Sustainability Manager, at gbennet5@utk.edu.

Sustainability-Focused Courses

(AGEC) Agricultural Economics

- [AGEC 445 - Economics of Biomass for Renewable Energy](#) • [AGEC 470 - Policy Analysis for Environmental and Natural Resource Management](#) • [AGEC 472 - Natural Resource Economics](#)
- [AGEC 570 – Advanced Natural Resource Economics](#) • [AGEC 670 – Advanced Topics in Natural Resource Economics](#)

(ARCH) Architecture

- [ARCH 232 - Introduction to Architectural Technology](#) • [ARCH 341 - Environmental Control Systems I](#) • [ARCH 342 - Environmental Control Systems II](#) • [ARCH 372 - Architectural Design IV](#) • [ARCH 471 - Architectural Design V: Integration](#) • [ARCH 271 - Architectural Design I: Place](#) • [ARCH 425/525 – Urban Landscape and Sustainability: Learning from Nature](#) • [ARCH 431 - Structural and Mechanical Applications](#) • [ARCH 486 - Advanced Architectural Design: Sustainable Architecture](#)

(CBE) Chemical and Biomolecular Engineering

- [CBE 481 - Green Engineering](#) • [CBE 488 - Honors: Design Internship in Green Engineering](#)
- [CBE 571 - STAIRMaster I: Fundamentals of Sustainable Technology](#)

(ECON) Economics

• [ECON 362 - Environmental and Natural Resource Policy](#) • [ECON 463 - Environmental Economics](#) • [ECON 677 - Environmental and Natural Resource Economics](#) • [ECON 678 - Economics of Environmental Policy](#)

(ESS) Environmental and Soil Sciences

• [ESS 120 - Soils and Civilizations](#) • [ESS 220 - Waters and Civilizations](#)

(FYS 129) Freshman Seminars

• [Deep Economy](#) • [Living Green in the Global Age](#)

(FORS) Forestry

• FORS 100 - Forests and Forestry in American Society • FORS 215 - Forest Ecology • FORS 314 - Economics of Forest and Wildland Resources • FORS 317 - Honors: Economics of Forest and Wildland Resources • FORS 321 - Wildland Recreation • FORS 322 - Silvicultural Practices • FORS 323 - People and Forest Practices • FORS 327 - Honors: Wildland Recreation • FORS 415 - Forest Conservation Workshop • [FORS 331 - Wood Science](#) • FORS 420 - Forest Resource Management • FORS 422 - Forest and Wildland Resource Policy • FORS 423 - Wildland Recreation Planning and Management • FORS 427 - Honors: Forest Resource Management • FORS 511 - Problem Analysis in Forest Resources • FORS 515 - Forest Conservation Workshop • FORS 520 - Advanced Forest Ecology • FORS 521 - Composite Materials from Renewable Resources • FORS 530 - Advanced Forest Resource Management • FORS 550 - Recreation Planning for Forests and Associated Lands • FORS 580 - Advanced Silviculture • FORS 630 - Forest Growth and Development

(FWF) Forestry, Wildlife and Fisheries

• FWF 250 - Conservation • FWF 312 - Principles of Silviculture • FWF 317 - Principles of Wildlife and Fisheries Management • FWF 412 - Human Dimensions of Natural Resources • FWF 415 - Upland Habitat Management • FWF 416 - Planning and Management of Forest, Wildlife and Fisheries Resources • FWF 420 - International Natural Resource Issues • FWF 520 - Natural Resource Issues at International Level • FWF 535 - Environmental Impacts to Natural Ecosystems • FWF 540 - Seminar on Integrated Resources Management in Biosphere Reserves • FWF 570 - Natural Resource Sustainability: Social, Political and Inst. Dimensions • FWF 610 - Interdisciplinary Analysis of Natural Resource Problems

(GEOG) Geography

• [GEOG 345 - Population and Environment](#) • [GEOG 333 - Climate Change and Human Response](#)

(GEOL) Geology

- [GEOL 103 - The Earth's Environments](#) • [GEOL 206 - Sustainability: Reducing our Impact on Planet Earth](#) • [GEOL 456 - Global Climate Change](#) • [GEOL 558 - Global Climate Change](#) • [GEOL 559 - Introduction to Oceanography](#)

(HEAM) Higher Education Administration

- [HEAM 630 - Globalization and Higher Education](#)

(HRT) Hotel, Restaurant, and Tourism

- [HRT 224 - Tourism Management](#)

(LAR) Landscape Architecture

- [LAR 501 - Introduction to Sustainable Design](#) • [LAR 541 - Fundamentals of Sustainability Oriented Site Analysis and Landscape Design](#) • [LAR 544 - Landscape Architecture Design II](#)

(PHIL) Philosophy

- [PHIL 241 - Engineering Ethics](#) • [PHIL 242 - Contemporary Moral Issues](#) • [PHIL 243 - Business Ethics](#) • [PHIL 245/445 - Environmental Ethics/Advanced Environmental Ethics](#)
- [PHIL 393 - Global Justice and Human Rights](#) • [PHIL 545 - Topics in Environmental Ethics](#)

(PLSC) Plant Sciences

- [PLSC 250 - World Food and Fiber Plant Production](#) • [PLSC 341 - Integrated Turfgrass Management and Environmental Benefits](#)

(POLS) Political Science

- [POLS 471 - International Political Economy](#) • [POLS 473 - Negotiation, Bargaining, and Diplomacy](#) • [POLS 588 - Sustainable Communities](#)

(SCED) Science Education

- [SCED 509 - Education for Sustainable Development: Making Connections](#) • [SCED 510 - Theoretical Foundations of Environmental Education](#)

(SOC) Sociology

- [SOC 250 - Introduction to Global Studies](#) • [SOC 260 - Introduction to the Study of Environmental Issues](#) • [SOC 360 - Environment and Resources](#) • [SOC 465 - Social Values and the Environment](#) • [SOC 506 - Social Justice and Public Policy](#) • [SOC 560 - Environmental Sociology](#) • [SOC 562 - Sociology of Environmental Policy](#) • [SOC 661 - Environmental Theory](#)
- [SOC 665 - Advanced Topics in Environmental Sociology](#)

(WFS) Wildlife and Fisheries Science

- WFS 301 - Ecology and Management of Wildlife Health • WFS 323 - Human Dimensions of Wildlife and Fisheries • WFS 340 - Wetlands Ecology and Management • WFS 341 - Law Enforcement and Public Relations • WFS 350 - Wildlife Damage Management • WFS 443 - Fisheries Science • WFS 444 - Ecology and Management of Wild Mammals • WFS 445 - Ecology and Management of Wild Birds • WFS 515 - Avian Ecology and Conservation • WFS 533 - Amphibian Ecology and Conservation • WFS 536 - Advanced Wetland Ecology • WFS 545 - Advanced Population Analysis • WFS 546 - Advanced Habitat Analysis

Sustainability-Related Courses

(AGEC) Agricultural Economics

- [AGEC 315 - Agricultural and Environmental Law](#)

(ANTH) Anthropology

- [ANTH 415 - Environmental Anthropology](#) • [ANTH 432 - Anthropology of Warfare and Violence](#)

(ARCH) Architecture

- [ARCH 509 - Seminar in Design Integration](#) • [ARCH 516 – Design Implementation: Construction Methods I](#) • [ARCH 556 – Design Implementation: Construction Methods II](#)
- [ARCH 586 - Advanced Architectural Design: Sustainable Architecture](#)

(BCMB) Biochemistry and Cellular and Molecular Biology

- [BCMB 321 - Introductory Plant Physiology](#)

(BIOL) Biology

- [BIOL 102 - Humankind in the Biotic World](#) • [BIOL 112 - General Botany](#) • [BIOL 250 - General Ecology](#)

(BSE) Biosystems Engineering

- [BSE 416 - Environmental Hydrology](#) • [BSE 555 - GIS and GPS Applications to Biosystems](#)

(BSET) Biosystems Engineering Technology

- [BSET 326 - GIS/GPS Applications in Agriculture and Environmental Science](#) • [BSET 414 - CAD Applications to Biosystems Engineering Technology](#) • [BSET 474 - Environmental Instrumentation and Monitoring](#)

(CBE) Chemical and Biomolecular Engineering

- [CBE 475 - Applied Microbiology and Bioengineering](#) • [CBE 503 - STAIRWISE: STAIR Weekly Integrative Strategic Exercises](#) • [CBE 572 - STAIRCase I: Sustainable Technology Case Studies](#) • [CBE 652 - STAIRCase II: Case Study for Sustainable Energy Production](#) • [CBE 673 - STAIRWISE: STAIR Weekly Integrative Strategic Exercises](#)

(CE) Civil Engineering

- [CE 381 - Environmental Engineering I](#) • [CE 401 - Review of Engineering Fundamentals](#) • [CE 407 - Honors Undergraduate Research](#) • [CE 409 - Special Topics](#) • [CE 440 - Civil Engineering Systems Design and Management](#) • [CE 481 - Environmental Engineering II](#) • [CE 482 - Environmental Engineering Laboratory](#) • [CE 486 - Air and Waste Management](#) • [CE 490 - Water Resources Applications](#) • [CE 210 - Geomatics](#)

(CHEM) Chemistry

- [CHEM 230 - Inorganic Chemistry](#)

(ECON) Economics

- [ECON 632 - Industrial Organization II](#)

(EEB) Ecology and Evolutionary Biology

- [EEB 470 - Aquatic Ecology](#) • [EEB 405 - Ecosystem Ecology Laboratory](#) • [EEB 421 - Community Ecology](#)

(ECE) Electrical Engineering and Computer Science

- [ECE 421 - Electric Energy Systems](#) • [ECE 525 - Alternative Energy Sources](#) • [ECE 522 - Power Systems Analysis II](#) • [ECE 625 - Utility Applications of Power Electronics](#)

(ENVE) Environmental Engineering

- [ENVE 513 - Environmental Microbiology](#) • [ENVE 521 - Climate Impacts on Water Resources](#) • [ENVE 526 - Ecological Engineering for Stream Rehabilitation](#) • [ENVE 561 - Climate and Environmental Informatics](#) • [ENVE 562 - Three Dimensional Climate Modeling](#) • [ENVE 577 - Air Pollution Climatology](#) • [ENVE 650 - Environmental Engineering Laboratory](#)

(EPP) Entomology and Plant Pathology

- [EPP 201 - Impact of Insects and Plant Diseases on Human Societies](#) • [EPP 321 - Economic Entomology](#) • [EPP 410 - Diseases and Insects of Ornamental Plants](#) • [EPP 608 - Advanced Topics in Integrated Pest Management](#)

(ESS) Environmental and Soil Sciences

- [ESS 334 - Soil Nutrient Management and Fertilizers](#) • [ESS 434 - Environmental Soil Chemistry](#)
- [ESS 444 - Environmental Soil Physics](#) • [ESS 454 - Environmental Soil Biology](#) • [ESS 462 - Environmental Climatology](#) • [ESS 493 - Problems in Environmental and Soil Sciences](#) • [ESS 511 - Soil-Plant Nutrient Cycling in Managed Ecosystems](#) • [ESS 516 - Soil Biology and Biochemistry](#) • [ESS 544 - Environmental Soil Physics](#)

(FDST) Food Science and Technology

- [FDST 420 - Food Microbiology](#)

(FORS) Forestry

- FORS 214 - Tree Biology • FORS 217 - Honors: Tree Biology • FORS 305 - Prescribed Fire Management • FORS 326 - Land Measurement Techniques • FORS 329 - Forest Resource Inventory • FORS 332 - Forest Products Industry • FORS 414 - Tree Physiology • FORS 514 - Tree Physiology

(FWF) Forestry, Wildlife and Fisheries

- FWF 212 - Dendrology and Silvics of North American Trees • FWF 310 - Wildland Fire Behavior and Management • FWF 313 - Measurements and Sampling

(FYS 129) Freshman Seminars

- [The Economics of Eating Well](#) • [History of the Manhattan Project](#) • [Restoring the Environment](#)

(GEOG) Geography

- [GEOG 131 - Geography of the Natural Environment I](#) • [GEOG 132 - Geography of the Natural Environment II](#) • [GEOG 430 - Global Environments of the Quaternary](#) • [GEOG 432 - Dendrochronology](#) • [GEOG 433 - The Land-Surface System](#) • [GEOG 434 - Climatology](#) • [GEOG 436 - Water Resources](#) • [GEOG 439 - Plant Geography of North America](#) • [GEOG 512 - Environmental Modeling and Geospatial Analysis](#) • [GEOG 532 - Topics in Global Change](#) • [GEOL 555 - Environmental Geology](#)

(GEOL) Geology

- [GEOL 455 - Basic Environmental Geology](#) • [GEOL 102 - Earth, Life, and Time](#) • [GEOL 108 - Honors: Earth, Life, and Time](#)

(IE) Industrial Engineering

- [IE 422 - Senior Problems Analysis](#)

(IDS) Interior Design

- [IDS 200 - Human-Environment Systems](#)

(JREM) Journalism and Electronic Media

- [JREM 451 - Environmental Writing](#)

(LAR) Landscape Architecture

- [LAR 531 - Advanced Landscape Architecture Construction](#)

(LAW) Law

- [LAW 866 - Environmental Law and Policy](#) • [LAW 867 - Environmental Law Seminar](#) • [LAW 945 - Environmental Practicum](#)

(MATH) Mathematics

- [MATH 681 - Advanced Mathematical Ecology I](#)

(ME) Mechanical Engineering

- [ME 572 - Sustainable Energy Engineering](#)

(MICR) Microbiology

- [MICR 470 - Microbial Ecology](#)

(MSE) Materials Science and Engineering

- [MSE 470 - Environmental Degradation of Materials](#)

(NURS) Nursing

- [NURS 432 - Health Promotion and Maintenance Strategies in the Community](#)

(POLS) Philosophy

- [PHIL 290 - Social and Political Philosophy](#)

(POLS) Political Science

- [POLS 549 - Environmental Policy](#) • [POLS 584 - Environmental Planning](#)

(PLSC) Plant Sciences

• [PLSC 210 - Horticulture: Principles and Practices](#) • [PLSC 330 - Plant Propagation](#) • [PLSC 421 - Native Plants in the Landscape](#) • [PLSC 430 - Greenhouse Management](#) • [PLSC 457 - Weed Management](#) • [PLSC 470 - Professional Practices for the Green Industry](#) • [PLSC 536 - Ecology of Grazing Land Systems](#)

(RCS) Retail and Consumer Sciences

• [RCS 421 - International Retailing](#)

(RHTM) Hotel, Restaurant, and Tourism

• [RHTM 617 - Tourism Analysis](#)

(SOWK) Social Work

• [SOWK 314/317 - Human Behavior and the Social Environment/Honors: Human Behavior in the Social Environment](#) • [SOWK 546 - Evidence-based Social and Economic Development Practice Across Systems](#)

(SOC1) Sociology

• [SOC1 110 - Social Justice and Social Change](#) • [SOC1 464 - Urban Ecology](#) • [SOC1 462 - Population](#) • SOC1 - 495 Social Justice and Community Service

(WFS) Wildlife and Fisheries Science

• WFS 101 - Current Topics in Wildlife Health • WFS 305 - Prescribed Fire Management • WFS 431 - Wildlife Physiology and Nutrition • WFS 433 - Amphibian Ecology and Conservation • WFS 440 - Wildlife Techniques • WFS 442 - Fisheries Techniques • WFS 450 - Fish Physiology • WFS 455 - Fish Culture • WFS 456 - Recirculating Aquaculture • WFS 530 - Wildlife Diseases • WFS 531 - Wildlife Physiology and Nutrition • WFS 550 - Fish Physiology • WFS 555 - Fish Culture • WFS 556 - Recirculating Aquaculture