210 Our National Parks and Recreation Lands
Fall, Spring, Summer. 3(3-0)
Scope and history of federal recreation lands. Compari-
sions of national parks to other federal lands. Recrea-
tion land management in other nations. Future federal land management options.

213 Introduction to Parks, Recreation, and Leisure
Fall, Spring, Summer. 3(3-0)
The scope and management of recreation services and resources. Historical and philosophical founda-
tions. Influence of recreation behavior on state, national, international, economic, political and social
institutions.

215 Recreation Program Management
Fall, Spring. 4(3-2)
Programming and leadership principles for planning, management, and evaluation. Program design and
conduct to service different clientele, using leisure education, program development, and small group
processes. Field trips required.

272 Recreational Boating Systems and the Boating Industry
Fall. 3(3-0)
Boats and boaters, marinas, dealerships, boating agencies and organizations, emerging issues, and
management methods. Field trips required.

293 Field Work in Park and Recreation Resources
Fall, Spring, Summer. 1 to 4 credits. A stu-
dent may earn a maximum of 4 credits in all enrollments for this course. R: Approval of department.
Professional field experience in a park or recreation setting.

295 Field Study in Park, Recreation and Tourism Resources Delivery Systems
Spring. 2 credits. P:M: (PRR 213 and PRR 215) R: Open only to sophomores or juniors or seniors. Approval of department; applica-
tion required.
Field course illustrating public, non-profit, and com-
mmercial recreation delivery systems. Interrelationship-
ships of recreation with natural resources, cultural
resources, facilities, and communities. Partnerships and
competition among providers. Field trips re-
quired.

302 Environmental Attitudes and Concepts
Fall. 3(3-0) R: One ISS course or one PSY course or one SOC course. R: Not open to freshmen.
History of attitudes and values associated with the environment, wilderness, environmentalism, envi-
ronmental quality, conservation, and preservation. Perceptions and assessment of modern environ-
mental problems.

351 Recreation and Natural Resources Communication (W)
Fall, Spring. 3(2-2) P:M: (PRR 213) and comple-
tion of Tier I writing requirement. R: Open only to students in the Department of Park, Recreation and Tourism Resources.
Not open to freshmen. Principles of communication for recreation and natural resource audiences. Application to various forms of interpretive media including verbal, graphic, and written. Field trips required.

370 Administration and Operation of Park and Recreation Systems
Fall. 3(3-0) P:M: (PRR 213 and PRR 215)
RB: (PRR 293) R: Not open to freshmen or sopho-
more.
Administration, operation and policy of park, recrea-
tion and tourism organizations. Legal foundations, concepts and responsibilities, ethical decision-
making and personnel management.

371 Management of Park and Recreation Agencies and Organizations
Spring. 3(3-0) P:M: (PRR 213 and PRR 215) R: Not open to freshmen or sopho-
more.
Management concepts and methods. Budgeting, service marketing, and strategic planning in park, recreation and tourism organizations.

388 Physical Resource Management in Parks, Recreation and Tourism
Fall. 3(2-2) P:M: (PRR 213 and PRR 215) R: (PRR 293) R: Open only to sophomores or juniors or seniors.
Relationships among natural resources, the envi-
ronment, recreational use and site design and de-
velopment. Principles to safeguard, maintain and restore recreation environments.

389 Planning and Evaluation in Parks, Recreation and Tourism
Fall. 3(3-0) P:M: (PRR 215 and PRR 213) R: (PRR 293) R: Open only to juniors or seniors.
Planning, research and evaluation of recreation and tourism systems. Research methods, resource
inventory and classification, use estimation, demand forecasting, marketing, and needs assessment. Formative, process, and summative evaluations using secondary data, surveys, observation, ex-
periments, case studies and focus groups

393 Professional Seminar
Fall, Spring. 1(1-0) P:M: (PRR 293) R: Open only to students in the Department of Park, Recreation and Tourism Resources.
Linkage of field work and internship. Integration of course work with professional practice.

410 International Studies in Tourism, Parks and Recreation
Fall, Spring, Summer. 3(3-0) Fall: Latin America, Europe, Spring: Latin America, Europe, Sum-
mmer: Latin America, Europe, Africa, Australia. A student may earn a maximum of 6 credits in all enrollments for this course. R: Not open to freshmen or sophomores. Approval of department; applica-
tion required.
Influence of tourism, parks and recreation on social, economic and political systems. Management of cultural, historical and natural resources as they relate to tourism, parks and recreation.

419 Applications of Geographic Information Systems to Natural Resources Management
Spring. 4(2-4) Interdepartmental with Fish-
eries and Wildlife; Forestry; Geography; Re-
source Development; Biosystems Engineer-
ing. Administered by Department of Fisher-
ies and Wildlife. RB: (GEO 221)
The application of geographic information systems, remote sensing, and global positioning systems to integrated planning and management for fish, wild-
life, and related resources.

448 Foundation of Natural Resource Based Recreation Management
Spring. 3(3-0) P:M: (PRR 210 or PRR 302)
RB: (ZOL 355) or Basic Ecology R: Open only to juniors or seniors or graduate stu-
dents. History and current status of natural resource-based recreation. Integration of natural resource man-
agement, security, interpretation, and outdoor pro-
gramming. Visitor and resource management tools and models.

449 Natural Resource Based Recreation Management Applications
Spring. 3(3-0) P:M: (PRR 448) RB: (PRR 388) and Ecology background. R: Open only to
juniors or seniors or graduate students. Application of management principles to trail, camp-
ing and dispersed recreation activities and settings.
Securities of visitors, resources and support facilities. Case studies and integrated problem solving.

451 Park Interpretive Services and Visitor Information Systems
Spring. 3(2-2) R: Not open to freshmen or sophomores.
Orientation, management, and education informa-
tion systems. Influencing visitor behaviors. Goals and functions of interpretation. Types of services.
Nature/visitor center programming and facility de-
sign and layout. Historical-cultural interpretation. Field trips required.

460 Natural Resource Economics
Spring. 3(3-0) Interdepartmental with Re-
source Development; Environmental Eco-
nomics and Policy; Biosystems Engineering. Administered by Department of Resource Development. P:M: (EC 201) and (RD 302 or EEP 255)
Economic framework for analyzing natural resource management decisions. Spatial and inter-temporal allocation of renewable and nonrenewable re-
sources. Special emphasis on institutions, external-
ities, and public interests in resource management.

464 Natural Resource Economics and Social Science (W)
Fall. 3(2-2) Interdepartmental with For-
estry; Fisheries and Wildlife; Resource Devel-
opment. Administered by Department of For-
estry. P:M: (EC 201 or EC 202) and comple-
tion of Tier I writing requirement. R: Not open to freshmen or sophomores. Application of economic and social science princi-

466 Natural Resources Planning and Policy
Spring. 3(3-0) Interdepartmental with For-
estry; Fisheries and Wildlife; Resource Devel-
opment. Administered by Department of Forestry. R: Open only to seniors or gradu-
ate students in the Department of Forestry or Department of Fisheries and Wildlife or Department of Park, Recreation and Tour-
ism Resources or Department of Resource Development. Scientific, environmental, social, and institutional factors affecting planning and policy-making. Focus on ecosystem-based planning and policy issues through development of a multiple-use plan. Case studies.
473  Commercial Recreation and Tourism Businesses and Organizations
Fall. 3(3-0) RB: (PRR 370) R: Open only to juniors or seniors or graduate students.
Start-up and management of commercial recreation and tourism businesses with an emphasis on small businesses. Roles and responsibilities of industry associations. Establishment and operation of tourism marketing organizations.

474  The Tourism System
Fall. 3(3-0) RB: (PRR 370 and PRR 371) R: Open only to juniors or seniors or graduate students.

485  Legal Aspects of Community-Based Recreation
Fall. 3(3-0) P:M: (PRR 213 and PRR 215) R: Open only to juniors or seniors.
Application of legal concepts to management and operation of programs, services, and facilities of private, nonprofit and public entities. Legal strategies. Human rights and behaviors. Management of risk liability.

487  Community-Based Recreation Facility Management
Spring. 3(2-2) RB: (PRR 388 and PRR 485) R: Open only to seniors or graduate students.
Analysis of the operation and maintenance of facilities and equipment used in the delivery of recreation programs and services. Management of human interaction within communities. Field trips required.

488  Community-Based Recreation Programming
Spring. 3(2-2) RB: (PRR 215 and PRR 370 and PRR 371 and PRR 388 and PRR 485) R: Open only to juniors or seniors or graduate students.
Recreation programs and services in rural and urban settings. Nonprofit, public and private agencies. Delivery systems and research procedures. Effective community-based recreation in relation to human services.

489  Seminar in Zoo and Aquarium Science
Fall, Spring. 1(1-0) A student may earn a maximum of 3 credits in all enrollments for this course. Interdepartmental with Zoology; Fisheries and Wildlife. Administered by Department of Zoology. R: Approval of department.
Scientific writing and oral presentations related to zoo and aquarium studies.

490  Independent Study
Fall, Spring. Summer. 1 to 4 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department; application required.
Individualized readings and research compatible with students' interests and abilities under the guidance of a faculty member.

491  Special Topics in Park and Recreation Resources
Fall, Spring. Summer. 1 to 4 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department; application required.
Group studies for advanced undergraduate students having special interests in Park and Recreation Resources.

493  Professional Internship in Park, Recreation and Tourism Resources
Fall, Spring, Summer. 3 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. P:M: (PRR 393 and PRR 293) R: Open only seniors in the Department of Park, Recreation and Tourism Resources. Approval of department; application required. A student may earn a maximum of 6 credits in all enrollments for any or all of these courses: ABM 493, AEE 493, ANR 493, ANS 493, CSS 493, EEP 493, FIM 493, FW 493, HRT 493, PKG 493, PLP 493, PRR 493, and RD 493.
Supervised professional experiences in agencies and businesses related to park, recreation and tourism resources.

PHARMACOLOGY PHM AND TOXICOLOGY

Department of Pharmacology and Toxicology
College of Veterinary Medicine

350  Introductory Human Pharmacology
Spring. 3(3-0) P:M: (PSL 250) or (PRL 431 and PSL 432) R: Open to freshmen.

450  Introduction to Chemical Toxicology
Spring. 3(3-0) P:M: (BS 110 or LBS 144) and (BS 111 or LBS 145) and (CEM 251) R: Not open to freshmen or sophomores.
Mammalian toxicology. Disposition of chemicals in the body, detoxication, elimination, and mechanisms of toxicity in major organ systems. Selected toxic agents.

480  Special Problems
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 9 credits in all enrollments for this course. R: Approval of department.
Individual work on selected research problems.

PHILOSOPHY PHL

Department of Philosophy
College of Arts and Letters

130  Logic and Reasoning
Fall, Spring. 3(3-0) Not open to students with credit in PHL 330.
Deductive and inductive reasoning. Topics such as rational argumentation, fallacies, definition, meaning, truth and evidence. Techniques for critical reading and thinking.

200  Introduction to Philosophy
Fall, Spring. 3(3-0)
Theories of knowledge, values, and reality. Topics such as objectivity, relativism and cultural diversity, moral responsibility, aesthetic values, the self, existence of God, free will, minds and machines.

210  Ancient Greek Philosophy
Fall. 3(3-0)
Philosophical problems of existence, knowledge, and action as addressed in selected readings from the Presocratics, Plato, Aristotle, and Hellenistic philosophers.

211  Modern Philosophy
Spring. 3(3-0) RB: (PHL 210) Philosophy from the Renaissance through the nineteenth century, including Descartes, Spinoza, Locke, Hume, Kant, Hegel, Kierkegaard and Nietzsche.

320  Existentialism
Fall. 3(3-0) RB: One PHL course. Husserl, Jaspers, Kierkegaard, Marcel, Nietzsche, Sartre, and de Beauvoir. Topics such as hope, anxiety, bad faith, subjectivity, freedom, social being, phenomenological method.

330  Formal Reasoning I
Fall. 3(3-0) Not open to freshmen or sophomores.
Formal methods in deductive reasoning. Logic of connectives and quantifiers, including identity, functions, and descriptions.

331  Formal Reasoning II
Spring. 4(4-0) P:M: (PHL 330) Axiomatic method. Informal axiomatizations of set theory and probability theory. Metatheory of elementary logic.

340  Ethics
Fall, Spring. 3(3-0) R: One PHL course. Inquiry through the writings of some important theorists, their critics and their contemporary followers. Aristotle, Hume, Kant, Mill, Sidgwick.

344  Ethical Issues in Health Care
Fall, Spring. 4(4-0) R: Not open to freshmen or sophomores.
Termination of treatment, truth-telling, informed consent, human experimentation, reproductive issues, allocation of scarce resources, justice and the health care system.

345  Business Ethics
Fall. 4(4-0) R: Not open to freshmen or sophomores.
Ethical dimensions of the relationships between a business and employees, consumers, other businesses, society, government, and the law.

347  Aesthetics
Fall. 3(3-0) RB: One course in art or literature or music or philosophy. Theories of aesthetic value and the nature of art. Works of such aestheticians as Plato, Hume, Kant, Hegel, Tolstoy, Santayana, Wittgenstein, Isenberg, Langer, Murdoch.

350  Introduction to Social and Political Philosophy
Fall. 3(3-0) RB: One PHL course. History of social and political philosophy; problems such as obligation, power, oppression, freedom, equality, and community.

354  Philosophy of Law
Fall, Spring. 3(3-0) RB: One PHL course or two PLS courses. Legal concepts such as punishment, responsibility, rights and duties, and judicial decisions. Legal theories such as natural law, positivism and realism.