PRR–Park, Recreation and Tourism Resources

492 Senior Seminar
Fall, Spring. 1(2-0) R: Open only to seniors in Packaging.
Seminar on current packaging issues, business organization and operations, and accepted practices in a corporate environment.

493 Professional Internship in Packaging
Fall, Spring, Summer. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to graduate students in Packaging.
Selected topics of interest to graduate packaging students.

825 Polymeric Packaging Materials
Fall. 4(3-2) P:NM: (PKG 322 and PKG 323)
Physical and chemical properties of polymeric materials and structures used in packaging. Relationship of properties to performance.

817 Instruments for Analysis of Packaging Materials
Fall of even years. 4(3-2) P:NM: (PKG 322 and PKG 323)

815 Permeability and Shell Life
Spring. 3(2-2) P:NM: (MTH 124Q and MTH 132 and PKG 322 and PKG 323)
Relationship between the storage life of packaged food and pharmaceutical products and the gas, moisture, and organic vapor permeability of packages in various environments.

892 Packaging Seminar
Fall. 1(2-0) A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to graduate students in Packaging.
Presentations of detailed studies on specialized aspects of packaging.

898 Master’s Project
Fall, Spring, Summer. 2 credits. R: Open only to master’s students in the School of Packaging. Approval of school, application required.
Master’s degree Plan B project. Completion of a project related to packaging issues.

890 Independent Study in Packaging
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 4 credits in all enrollments for this course. R: Open only to graduate students in Packaging. Approval of department; application required.
Special investigations of unique packaging problems.

891 Selected Topics
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 8 credits in all enrollments for this course. R: Open only to graduate students in Packaging.
Selected topics of interest to graduate packaging students.

899 Master’s Thesis Research
Fall, Spring, Summer. 1 to 8 credits. A student may earn a maximum of 99 credits in all enrollments for this course. R: Open only to master’s students in the Packaging major.
Master’s thesis research.

895 Analytical Solutions to Packaging Design
Spring of even years. 3(3-0) P:NM: (PKG 825) R: Open only to graduate students in the College of Agriculture and Natural Resources or College of Engineering or College of Natural Science. Approval of department; application required.
Analytical and quantitative techniques for packaging design and evaluation.

900 Independent Study in Packaging
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to Ph.D. students in the School of Packaging. Approval of department; application required.
Special investigations of unique packaging problems.

992 Field Work in Park and Recreation Resources
Fall, Spring. Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to seniors in Packaging.
Professional field experience in a park or recreation setting.

994 Field Study in Park and Recreation Resources
Spring. 2 credits. P:NM: (PRR 213 and PRR 215) R: Open only to sophomores or juniors or seniors. Approval of department; application required.
Field course illustrating public, non-profit, and commercial recreation delivery systems. Interrelationships of recreation with natural resources, cultural resources, facilities, and communities. Partnerships and competition among providers. Field trips required.

999 Doctoral Dissertation Research
Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 50 credits in all enrollments for this course. R: Open only to Doctoral students in packaging.
Doctoral dissertation research.

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

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

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

300B Coaching Sports for Athletes with Disabilities
Spring of even years. 2(2-0) Interdepartmental with Kinesiology; Women's Studies; Forestry; Public Resource Management; Surgery. Administered by Department of Kinesiology. SA: PES 300B

302 Environmental Attitudes and Concepts
Fall. 3(3-0) P:NM: 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, environmental quality, conservation, and preservation. Perceptions and assessment of modern environmental problems.
320 Human Behavior in Park and Recreation Settings
Spring. 3(3-0) P:NM: One PSY course or one SOC course.
Antecedents, intervening conditions, and outcomes of human behavior in park, recreation, and leisure settings. Interactions between recreation behavior and the natural environment. Problem solving in recreation.

351 Recreation and Natural Resources Communication (W)
Fall, Spring. 3(2-2) P:M: (PRR 213) and completion 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.

362 Recreation for Special Populations
Spring. 3(3-0) R: Not open to freshmen.
Therapeutic recreation services emphasizing handi- capper and geriatric characteristics. Chemical de- pendency issues. Leisure lifestyle issues. Philoso- phical foundations and service models. Integration, normalization, inclusion, and empowerment con- cepts.

370 Administration and Operation of Park and Recreation Systems
Fall. 3(3-0) P:M: (PRR 213 and PRR 215) R: Not open to freshmen or sophomores.
Policy, administration, and operations of park, rec- reation and tourism organizations.

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 sophomores.
Management concepts and methods. Budgeting, service marketing, and strategic planning in park, recreation and tourism organizations.

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. 3(3-0) A student may earn a maximum of 6 credits in all enroll- ments for this course. R: Not open to freshmen or sophomores. Approval of depart- ment; application 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. P:M: (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.

443 Park and Recreation Planning and Design Concepts
Fall, Spring. 4(2-4) P:M: (PRR 351) R: Not open to freshmen or sophomores.
Planning models and design analysis, synthesis, and communication of recreation and tourism subsystem and supply analysis.

449 Management of Natural Resource Based Recreation
Fall. 3(3-0) R: Not open to freshmen or sophomores.
The history of natural resource recreation manage- ment in the U.S. Techniques for dispersed and developed recreation management. Security of facilities, visitors, and personnel.

451 Park Interpretive Services and Visitor Information Systems
Spring. 3(2-2) R: Not open to freshmen or sophomores.

460 Resource and Environmental Economics
Spring. 3(3-0) Interdepartmental with Re- source Development; Public Resource Management; Biosystems Engineering. Administered by Department of Resource Development. P:M: (EC 201) P:M: (RD 302 or PRR 255)

464 Natural Resource Economics and Social Science (W)
Fall. 3(2-2) Interdepartmental with Forestry; Fisheries and Wildlife; Resource Develop- ment. 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.

466 Natural Resources Planning and Policy
Spring. 3(2-2) Interdepartmental with For- estry; Fisheries and Wildlife; Resource De- velopment. 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.

467 Programming in Therapeutic Recreation
Fall. 3(3-0) P:M: (PRR 382)
Comprehensive and individual program planning methods. Standards of practice, quality assurance, interview techniques, professional ethics, and termi- nology. Field trips required.

468 Therapeutic Recreation Techniques
Spring. 3(3-0) P:M: (PRR 467)

473 Commercial Recreation and Tourism Enterprises
Fall. 3(3-0) P:M: (EC 201 and PRR 371) R: Not open to freshmen or sophomores.
Management and operation of resort, recreation, and tourism enterprises. Emphasis on small busi- ness. Strategic planning, feasibility studies, market assessment, and quality assurance.

474 Community and Natural Resource Based Tourism
Spring. 3(3-0) R: Not open to freshmen or sophomores.
Developing and sustaining tourism. Environmental, social, and economic considerations. Roles and responsibilities of agencies and organizations. Im- pact management. Tourism-based community and rural development.

475 Evaluation in Parks and Recreation
Fall. 3(2-2) P:M: (STT 200 or STT 201 or STT 315 or PSY 295 or PLS 201) and (PRR 370 and PRR 371) R: Open only to seniors or graduate students.
Evaluation concepts, approaches, and methods. Evaluation in management and administrative func- tions.

485 Legal Aspects of Parks, Recreation, and Sport
Fall. 3(3-0) P:M: (PRR 370 and PRR 371) R: Open only to seniors or graduate stu- dents.
Legal concepts in management and operation of public and private programs, areas and facilities. Tort liability and risk management planning. Rights and behavior constraints of clientele. Legal founda- tions of authority.

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 De- partment of Zoology. R: Approval of de- partment.
Scientific writing and oral presentations related to zoo and aquarium studies.

490 Independent Study
Fall, Spring. Summer. 1 to 4 credits. A stu- dent 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 guid- ance of a faculty member.

491 Special Topics in Park and Recreation Resources
Fall, Spring. Summer. 1 to 4 credits. A stu- dent 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.
forms. Intentional tort and negligence concepts.

Risk control. Legal audits. Human rights mandates.

848  The Law and Leisure Services

844  Research Methods in Recreation, Parks, and Tourism

Current US and international issues and applications. Interaction between policy and management.

Areas. Current state and federal policies and age

History of policies related to parks and protected structures.

staffing, operating and evaluating organizational Administration and management of park and recreation and tourism decisions. Non-market valuation.


840  Recreation and Tourism Economics

Fall. 3(3-0)


841  Park and Recreation Administration and Policy

Fall. 3(3-0)

Administration and management of park and recreation services in urban and rural environments. Policy development and evaluation. Planning, financing, staffing, operating and evaluating organizational structures.

842  Parks and Protected Areas Policy and Management

Spring of even years. 3(3-0)

History of policies related to parks and protected areas. Current state and federal policies and agencies. Interaction between policy and management. Current US and international issues and applications.

844  Research Methods in Recreation, Parks, and Tourism

Spring. 3(3-0)

Recreation research needs, techniques, assessment and application. Management problems and decision making.

848  The Law and Leisure Services

Spring. 3(3-0)


870  Park, Recreation and Natural Resources Marketing

Fall. 3(3-0) R: Open only to graduate students in the Department of Park, Recreation and Tourism Resources or Department of Resource Development or Department of Forestry or Department of Fisheries and Wildlife.

Integration of marketing concepts and methods into agency planning and decision making.

874  Leisure, Travel and Tourism

Fall. 3(3-0)

Modern concepts of leisure, travel, and tourism. Historical antecedents and current concepts of leisure, travel, and tourism.

879  Case Studies in Park and Recreation Resources

Spring. 3(3-0)

Integrated approach to policy, planning, and management problems.

890  Independent Study

Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 8 credits in all enrollments for this course.

Supervised individual study in an area of parks, recreation, leisure, or tourism.

891  Selected Topics

Fall, Spring, Summer. 3 to 6 credits. A student may earn a maximum of 8 credits in all enrollments for this course.

Selected topics in park and recreation resources of current interest and importance.

892  Park and Recreation Resources Seminar

Fall, Spring. 1 to 2 credits. A student may earn a maximum of 2 credits in all enrollments for this course.

Current policy issues, problems and research in parks, recreation and tourism.

899  Master’s Thesis Research

Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 99 credits in all enrollments for this course. R: Open only to master’s students in the Park, Recreation and Tourism Resources major. Approval of department.

Master’s thesis research.

923  Advanced Environmental and Resource Economics

Spring of even years. 3(3-0) Interdepartmental with Agricultural Economics; Forestry; Resource Development. Administered by Department of Agricultural Economics. P:NM: (AEC 829 and EC 805)

Advanced economic theory of environmental management and policy. Treatment of externalities and market and non-market approaches to environmental improvement. Topics in conservation and sustainable economic growth. Applications to e-search and policy.

925  Environmental and Resource Economics Research

Spring of odd years. 3(3-0) Interdepartmental with Agricultural Economics; Forestry; Resource Development; Economics. Administered by Department of Agricultural Economics. P:NM: (AEC 829 and EC 805) SA: AEC 991H

Topics such as contingent or non-market valuation, institutional analysis, pollution prevention, environmental quality and location, recreational demand modeling, and environmental risk management. Research process in environmental and resource economics.

944  Advanced Research Methods

Summer. 3(3-0) P:NM: (PRR 844)

Applications of advanced and specialized research methods to problems in recreation and tourism. Measurement, sampling, and research design.

999  Doctoral Dissertation Research

Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 99 credits in all enrollments for this course. R: Open only to Ph.D. students in Park and Recreation Resources.

Doctoral dissertation research.

PATHOLOGY AND DIAGNOSTIC INVESTIGATION  PTH

Department of Pathobiology and Diagnostic Investigation

College of Veterinary Medicine

525  Neuropathology Problem Solving Exercises

Fall, Spring. 2(0-4) R: Open only to graduate-professional students in College of Human Medicine or Osteopathic Medicine.

Independent study of 24 neuropathology problem solving exercises.

542  Basic Principles of Pathology

Spring. 2 credits. R: Graduate-professional students in colleges of Human and Osteopathic Medicine.

Fundamental pathologic processes; clinical applications.

551  General Pathology

Spring. 3(2-2) R: Completion of Semester 1 of the graduate professional program in the College of Veterinary Medicine.

Host responses to injury, including cell degeneration, necrosis, disturbances of growth and development, neoplasia, circulatory disturbances and inflammation.

553  Clinical and Systemic Pathology

Fall. 5(4-4) R: Completion of Semester 2 of the graduate professional program in the College of Veterinary Medicine.

Hematology, Pathology of hematopoietic, lymphatic, digestive, urinary, respiratory, integumentary, cardiovascular, nervous, reproductive, musculoskeletal, endocrine, ocular, and otic systems.