

Descriptions—Park and Recreation Resources of Courses

- 870. Park, Recreation and Natural Resources Marketing**
Fall of odd-numbered years. 3(3-0)
R: Open only to graduate students in Park and Recreation Resources, Resource Development, Forestry, and Fisheries and Wildlife.
Integration of marketing concepts and methods into agency planning and decision making.
QA: PRR 871
- 874. Leisure, Travel and Tourism**
Spring. 3(3-0)
Modern concepts of leisure, travel, and tourism. Historical antecedents and current concepts of leisure, travel, and tourism.
QA: PRR 871
- 879. Case Studies in Park and Recreation Resources**
Spring. 3(3-0)
P: PRR 840, PRR 841.
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 7 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 graduate students in Park and Recreation Resources. Approval of department.
- 944. Advanced Research Methods**
Summer. 3(3-0)
P: 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 Recreational Resources.

- 542. Basic Principles of Pathology**
Spring. 2 credits.
R: Graduate-professional students in colleges of Human and Osteopathic Medicine.
Fundamental pathologic processes; clinical applications.
- 550. Veterinary Pathology**
Fall. 4(3-2)
R: Completion of the first year of the graduate-professional program in College of Veterinary Medicine. Not open to students with credit in PTH 551.
Etiology of disease. Disturbances of cell growth and metabolism, necrosis, circulatory changes, inflammation, and neoplasia.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1993.
QA: PTH 550
- 551. General Pathology**
Spring. 3(2-2)
R: Completion of 1 semester of the graduate-professional program in the College of Veterinary Medicine. Not open to students with credit in PTH 550. Not open to students with credit in PTH 550.
Host responses to injury, including cell degeneration, necrosis, disturbances of growth and development, neoplasia, circulatory disturbances and inflammation.
- 552. Veterinary Clinical Pathology**
Fall. 3(2-2)
R: Completion of the first year of the graduate-professional program in the College of Veterinary Medicine. Not open to students with credit in PTH 553.
Technical aspects, principles, and interpretation of laboratory procedures in hematology, chemistry, cytology, and related areas.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1993.
QA: PTH 552
- 553. Clinical and Systemic Pathology**
Fall. 5(4-2)
R: Completion of 2 semesters of the graduate-professional program in the College of Veterinary Medicine. Not open to students with credit in PTH 552. Not open to students with credit in PTH 552.
Hematology. Pathology of hematopoietic, lymphatic, digestive, urinary, respiratory, integumentary, cardiovascular, nervous, reproductive, musculoskeletal, endocrine, ocular, and otic systems.
- 590. Special Problems in Pathology**
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 8 credits in all enrollments for this course.
R: Open only to graduate-professional students in College of Human Medicine or Osteopathic Medicine.
Individual directed work on an experimental, theoretical, or applied problem in pathology.
QA: PTH 590
- 592. Special Problems in Veterinary Pathology**
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate-professional students in the College of Veterinary Medicine. Not open to students with credit in PTH 632.
Student works under faculty direction on an experimental, theoretical or applied problem.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1996.
QA: PTH 592
- 608. Pathology Clerkship**
Fall, Spring, Summer. 1 to 8 credits. A student may earn a maximum of 12 credits in all enrollments for this course.
R: Open only to graduate-professional students in College of Human Medicine or Osteopathic Medicine.
Anatomic and clinical pathology with emphasis on clinical-pathological correlation. Conducted in pathology departments of affiliated hospitals.
QA: PTH 608

- 609. Laboratory Medicine Clerkship**
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-professional students in College of Human Medicine or Osteopathic Medicine.
Laboratory procedures. Correlation of laboratory data with morphologic abnormalities in patients with altered pathophysiology.
QA: PTH 609
- 621. Histopathology Clerkship**
Fall, Spring. 2 credits.
R: Completion of the third year of the graduate-professional program in the College of Veterinary Medicine.
Supervised instruction in the examination and interpretation of histologic lesions caused by animal diseases.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1996.
QA: PTH 621
- 630. Diagnostic Pathology Clerkship**
Fall, Spring. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
P: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine. R: Not open to students with credit in PTH 651 or PTH 652.
Necropsy and surgical and clinical pathology. Interpretation of gross findings and laboratory data.
QA: PTH 651, PTH 652
- 631. Necropsy Clerkship**
Fall, Spring. 3 credits
P: PTH 630. R: Completion of 5 semesters of the graduate-professional program in the College of Veterinary Medicine.
Supervised necropsy. Interpretation and presentation of findings.
- 632. Problems in Veterinary Pathology**
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
R: Completion of 5 semesters in the graduate-professional program in the College of Veterinary Medicine. Approval of department.
Supervised projects involving gross pathology, histopathology, clinical pathology, or molecular pathology.
- 633. Transfusion Medicine**
Fall, Spring. 3 credits.
R: Completion of 5 semesters of the graduate-professional program in the College of Veterinary Medicine.
Management of blood donors, blood banking, and cross match technologies. Administration of blood components. Blood typing in large and small animals.
- 651. Veterinary Clinical Pathology Clerkship**
Fall, Summer. 3 credits.
R: Completion of the third year of the graduate-professional program in the College of Veterinary Medicine. Not open to students with credit in PTH 630.
Concepts in laboratory interpretation and diagnosis.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1996.
QA: PTH 651
- 652. Veterinary Necropsy Clerkship**
Fall, Spring, Summer. 3 credits.
R: Completion of the third year of the graduate-professional program in the College of Veterinary Medicine. Not open to students with credit in PTH 630.
Supervised necropsy and interpretation of findings.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1996.
QA: PTH 652
- 656. Problems in Veterinary Necropsy Clerkship**
Spring. 2 credits.
P: PTH 652. R: Completion of the third year of the graduate-professional program in the College of Veterinary Medicine. Not open to students with credit in PTH 631.
Problems in necropsy and interpretation of findings.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1996.
QA: PTH 656

PATHOLOGY PTH

**Department of Pathology
College of Human Medicine
College of Osteopathic Medicine
College of Veterinary Medicine**

- 525. Neuropathology Problem Solving Exercises**
Fall, Spring, Summer. 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.
QA: PTH 525

851. Advanced General Pathology
Fall of even-numbered years. 3(3-0)
P: PTH 852 concurrently. R: Approval of department.
Fundamental concepts of cell injury, inflammation, and oncogenesis. Mechanisms of disease.
QA: PTH 806

852. Advanced General Pathology Laboratory
Fall of even-numbered years. 1(0-2)
P: PTH 851 concurrently.
Histopathologic and ultrastructural study of general morphologic patterns of inflammation cell injury and neoplasm.
QA: PTH 806L

853. Advanced Systemic Pathology
Spring of even-numbered years. 4(3-2)
R: Approval of department.
Pathological aspects of the nervous, endocrine, cardiovascular, respiratory, urinary, genital, musculoskeletal, integumentary and special sense systems.
QA: PTH 802, PTH 803, PTH 807

854. Advanced Clinical Pathology
Spring of odd-numbered years. 3(3-0)
P: PTH 540, PTH 552, PTH 609, PTH 651. R: Approval of department.
Hematology including anemias, leukocyte responses and hemostasis. Clinical chemistry including tests to evaluate organs.

855. Proseminar
Fall of odd-numbered years. 2(2-0)
R: Approval of department.
Preparation, editing, and review of research manuscripts and grants. Critique of oral presentations. Illustrations of research data and thesis preparation. Philosophy and methods of research.
QA: PTH 805

856. Pathotoxicology
Summer of even-numbered years. 3(3-0)
R: Approval of department.
Pathologic changes in tissues of animals used in toxicologic studies. Clinical pathologic assessments. Gross, histologic, and ultrastructural changes in organ systems.
QA: PTH 818

857. Correlative Diagnostic Pathology
Fall, Spring, Summer. 3(0-6)
R: Approval of department.
Diagnosis of animal diseases by necropsy, biopsy, or clinical pathology. Correlation of diagnostic test results with history, laboratory data and morphologic findings. Compiled and formal presentation of findings.
QA: PTH 808, PTH 810

890. Problems in Veterinary Pathology
Fall, Spring, Summer. 1 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course.
R: Approval of department.
Faculty supervised work on an experimental, theoretical or applied problem in veterinary pathology.

891. Problems in Pathology
Fall, Spring, Summer. 1 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course.
R: Approval of department.
Faculty supervised work on an experimental, theoretical or applied problem in pathology.
QA: PTH 800

892. Pathology Seminar
Fall, Spring. 1(1-0) A student may earn a maximum of 3 credits in all enrollments for this course.
R: Approval of department.
Presentation and discussion of current topics in pathology by departmental graduate students, faculty or outside speakers.
QA: PTH 801

899. Master's Thesis Research
Fall, Spring, Summer. 1 to 10 credits. A student may earn a maximum of 10 credits in all enrollments for this course.
R: Approval of department.

QA: PTH 899

999. Doctoral Dissertation Research
Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 36 credits in all enrollments for this course.
R: Admission to doctoral program in Pathology.

QA: PTH 999

PEDIATRICS AND HUMAN DEVELOPMENT PHD

Department of Pediatrics and Human Development College of Human Medicine

523. Genetics for Medical Practice
Summer. 1(1-0) Interdepartmental with Biochemistry.
R: Graduate-professional students in colleges of Human and Osteopathic Medicine.
Basic principles of genetics for medical students.

524. Genetics Clinic
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 8 credits in all enrollments for this course.
P: PHD 523 R: Graduate-professional students in colleges of Human and Osteopathic Medicine.
Role of genetics in health care delivery under the direction of a faculty member.

591. Special Problems in Human Development
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 12 credits in all enrollments for this course.
R: Graduate-professional students in colleges of Human and Osteopathic Medicine.
Work under the direction of a faculty member on an experimental, theoretical, or applied problem.

600. Pediatric Specialty Clerkship
Fall, Spring, Summer. 12 credits.
R: Open only to graduate-professional students in College of Human Medicine. Completion of preclinical CHM curriculum.
Multidisciplinary approach to children and their families in a health care setting. Integrated biological, behavioral, and clinical sciences in assessing and planning children's health care needs.

601. Human Development and Pediatric Sub-specialties
Fall, Spring, Summer. 6 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course.
P: PHD 600. R: Open only to graduate-professional students in College of Human Medicine.
Experience in clinical, behavioral, and basic sciences related to pediatrics and human development.
Temporary approval effective from Fall Semester 1992 through Summer Semester 1994.
QP: PHD 600

602. Ambulatory Pediatrics
Fall, Spring, Summer. 6 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course.
P: PHD 600. R: Open only to graduate-professional students in College of Human Medicine.
Clinical experience in outpatient and community setting involving ongoing child health care.

603. Pediatric Infectious Diseases Clerkship
Fall, Spring, Summer. 6 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course.
P: PHD 600. R: Open only to graduate-professional students in College of Human Medicine.
Combines office, clinic, and inpatient experiences in evaluation and managing pediatric patients with infectious diseases.
QA: PHD 611

604. Neonatology
Fall, Spring, Summer. 6 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course.
P: PHD 600. R: Open only to graduate-professional students in College of Human Medicine.
Clinical experiences: modern neonatal techniques and care patterns for neonates including follow up.
QP: PHD 600

605. Pediatric Cardiology Clerkship
Fall, Spring, Summer. 6 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course.
P: PHD 600. R: Open only to graduate-professional students in College of Human Medicine.
Office, clinic, and hospital experience in diagnostic and therapeutic pediatric cardiology including special diagnostic procedures.

606. Pediatric Endocrinology and Metabolism Clerkship
Fall, Spring, Summer. 6 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course.
P: PHD 600. R: Open only to graduate-professional students in College of Human Medicine.
Clinic and hospital experience in evaluating patients with endocrine and metabolic disorders.

607. Pediatric Hematology and Oncology
Fall, Spring, Summer. 6 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course.
P: PHD 600 R: Grad professional students in College of Human Medicine
Clinical experience in evaluating and managing pediatric patients with common hematologic and oncologic disorders

608. Pediatric Pulmonary Disease Clerkship
Fall, Spring, Summer. 6 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course.
P: PHD 600. R: Open only to graduate-professional students in College of Human Medicine.
Inpatient and outpatient clinical experiences in evaluating and managing pediatric patients with pulmonary problems. Diagnostic procedures, clinically relevant physiology, current research.

PEDIATRICS PED

Department of Pediatrics College of Osteopathic Medicine

580. Health Professionals' Role in the Treatment of Substance Abuse
Spring. 1(1-0)
R: Open only to graduate and graduate-professional students in the colleges of Human Medicine, Nursing, and Osteopathic Medicine or approval of department.
Practical knowledge base for recognizing and dealing with individuals affected by substance abuse.
QA: PED 580

590. Special Problems in Pediatrics
Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 48 credits in all enrollments for this course.
R: Open only to graduate-professional students in the College of Osteopathic Medicine. Approval of department.
Experimental, theoretical, or applied problems under faculty direction.
QA: PED 590

600. Pediatrics Clerkship
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate-professional students in the colleges of Osteopathic Medicine and Human Medicine upon completion of Units I and II.
Practical clinical exposure in the area of pediatrics.
QA: PED 600