420. Construction Management (B C 314.) Spring. 4(3-2) 416 or approval of department. Systems management techniques for residential building organizations inclusive of organization development, operations, planning, scheduling and control, and administrative systems and procedures.

835. Research in Building Construction Fall, Winter, Spring, Summer. Variable credit. Approval of department.

899. Research Fall, Winter, Spring, Summer. Variable credit. Approval of department.

PARK AND RECREATION RESOURCES

College of Agriculture and Natural Resources

IDC. Resource Ecology and Man For course description, see Interdisciplinary Courses.

300. Wilderness Survival Fall, Winter, Spring, Summer. 3(3-0) Outdoor skills for utilization of plant and animal materials to provide shelter, fire, signals, water and food in the outdoors. Psychology and attitudes conducive to wilderness survival and appreciation. Field trip required.

301. Wilderness Survival (TV) Fall, Winter, Spring, Summer. 3(3-0) Credit may not be earned in both 300 and 301. A television lecture course dealing with the principles and attitudes necessary to promote survival in a wilderness setting.

302. Environmental Attitudes and Concepts Fall. 2(0) Beliefs and attitudes toward land by primitive man and ancient civilizations. Effects of Minir, Thoreau, and others on man/land relationships, industrialism and environmental quality. Current environmental controversy. Field trip required.

304. Designs for Recreation: Nature and Man Fall, Spring. 3(3-0) Approval of department. Design strategies are used to demonstrate relationships between characteristics of the environment and man's use of it. Integration of work, leisure, and recreation uses within environmental potentials and limits is emphasized.

344. Leisure and Recreation Resources Fall, Spring. 3(3-0) Leisure in relation to park and recreation resources. History and philosophy, significance in modern society, and impact on urban and natural resource developments.

351. Environmental Interpretation I: Principles Fall, Winter. 3(3-0) Philosophy, needs, types, and uses of informational services in private, municipal, county, state and federal park and recreation areas. The role of the park interpreter (naturalist).

440. Park and Recreation Administration Fall, Winter. 4(4-0) Park and recreation organization, administration and policy at municipal, county, and regional level. Field trip required.

442. State and Federal Recreation Resource Policy Winter. 3(3-0) Origins, development and significance of public policy in recreation resource development in the United States with emphasis at state and federal levels. Field trip required.

444. Park and Recreation Area Design Fall, Winter, Spring. 4(3-0) 394; HR 211 or 212, or BGT 318; approval of department. Planning and design principles of space, scale, and circulation applied to the use of park and recreation areas and facilities. Field trip required.

446. Park Area Operations Spring. 3(3-0) Approval of department. Problems in operations and maintenance of park and recreation areas and facilities. Personnel practices, budgeting, and maintenance schedules. Selection and adaptability of maintenance equipment. Field trip required.

448. Field Studies in Park Administration Fall. 3 credits. Approval of department. Investigation and analysis of outstanding park and recreation programs. Visits to areas under local, state, and federal jurisdiction. Evaluation of administrative practices, area management, and operation policies. Conducted as a traveling class with agency assistance.

449. Recreation Land Management Fall, Spring. 3(3-0) Not open to majors. Fundamentals of outdoor recreation resource management. Planning, development, and administration of programs and facilities.


451. Environmental Interpretation II: Methods and Devices Spring. 4(3-1) 351. Methodology and equipment used in information transmission in natural, historic, and scenic areas. Site selection and development criteria for natural resource interpretation.

480. Supervised Study Fall, Winter, Spring, Summer. 1 to 4 credits. May re-enroll for a maximum of 10 credits. Approval of department. Seminars on current problems. Supervised readings. Individual undergraduate research on selected topics.

484. Senior Proseminar Winter. 1(1-0) Senior majors. Seminars on current professional problems and literature.

501. Dimensions of Recreation and Leisure Fall. 3(3-0) 344 or approval of department. Concepts of recreation and leisure in the United States and their implications for professional development. Extensive reading into concepts, definitions, values, educational components and historic roots of recreation and leisure.

540. Recreation Economics Spring. 4(4-0) FOR 809 or approval of instructor. Interdepartmental with the departments of Forestry and Resource Development. Applications of economic analysis to recreation resource problems including measurement of demand and supply, valuation of recreation resources, determination of economic impact, economic decision making and policy considerations.

542. Park and Recreation Policy Winter. 3(3-0) Interdepartmental with the Department of Resource Development. Recreation, leisure and work concepts. Determination of needs for recreation facilities. Factors affecting public and private allocation of resources for provision of needed facilities.

544. Recreation Research Methods Fall. 4(3-0) SOC 312, or approval of department. Social scientific investigation of social and behavioral aspects of recreation and leisure. Concepts, methods, and techniques of theoretical, applied, and historical research as they relate to recreation resource problems. Emphasis on literature survey, experiments, and investigation. Course is conducted as a traveling class or seminar. Examine the theoretical and methodological approaches in recreation research.

546. Urban Recreation Area and Program Analysis Spring. 4(4-0) Approval of department. Analysis of urban public, private and commercial recreation areas, facilities, and programs. Construction of a typology of urban communities. Course is conducted in selected urban communities in Michigan.

548. Recreation Resource Law Spring. 3(3-0) Legal basis for public recreation. Methods of acquiring recreational resources, including condemnation and condemnation procedures. Administrative problems, including zoning, liability, civil rights and law enforcement. Study of cases and statutes.

550. Development of Water Recreation Resources Spring. 3(3-0) Approval of department. Administration, research, design, and construction of water recreation facilities. Policy issues, race conflict, and flood planning reviewed in light of interagency relationship and legislative mandate.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>404</td>
<td>General Pathology</td>
<td>Fall, 5(3-6) ANT 420, Junior Medical Technology majors, or approval of department.</td>
</tr>
<tr>
<td>407</td>
<td>Clinical Pathology</td>
<td>Winter, Spring, 3 or 5 credits. 404 credits. Optional.</td>
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<tr>
<td>502</td>
<td>Human Pathology I</td>
<td>Winter, 2(2-0) Second term medical students or approval of department.</td>
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<tr>
<td>503</td>
<td>Human Pathology II</td>
<td>Spring, 3(2-2) 502 credits. May re-enroll for a maximum of 17 credits.</td>
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<tr>
<td>504</td>
<td>Human Pathology III</td>
<td>Fall, 3(2-2) 502 credits. May re-enroll for a maximum of 17 credits.</td>
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<tr>
<td>505</td>
<td>Human Pathology IV</td>
<td>Winter, 3(2-2) 504 credits. May re-enroll for a maximum of 17 credits.</td>
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<tr>
<td>506</td>
<td>Human Pathology V</td>
<td>Spring, 3(2-2) 505 credits. May re-enroll for a maximum of 17 credits.</td>
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<tr>
<td>608</td>
<td>Pathology Clerkship</td>
<td>Fall, Winter, Spring, Summer. 30 credits. May re-enroll for a maximum of 17 credits.</td>
</tr>
<tr>
<td>650</td>
<td>Applied Veterinary Pathology</td>
<td>Fall, Winter, Spring, Summer. 5(1-12) Final year of veterinary medicine curriculum.</td>
</tr>
<tr>
<td>800</td>
<td>Problems in Pathology</td>
<td>Fall, Winter, Spring, Summer. 30 credits. May re-enroll for a maximum of 3 credits.</td>
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<tr>
<td>802</td>
<td>Advanced Histopathology</td>
<td>Fall, Winter, Spring, Summer. 5(0-0) Approval of department.</td>
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<tr>
<td>803</td>
<td>Advanced Histopathology</td>
<td>Winter, 5(0-0) 809 credits. May re-enroll for a maximum of 8 credits.</td>
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<tr>
<td>805</td>
<td>Pathology Seminars</td>
<td>Fall, 2(2-0) Approval of department.</td>
</tr>
<tr>
<td>810</td>
<td>Post-Mortem Diagnosis</td>
<td>Winter, Summer. 3(0-0) May re-enroll for a maximum of 6 credits.</td>
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<tr>
<td>811</td>
<td>Advanced Clinical Pathology</td>
<td>Spring, 3(0-0) Approval of department.</td>
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<tr>
<td>812</td>
<td>Hematology</td>
<td>Winter, 5(3-4) 408 credits. May re-enroll for a maximum of 17 credits.</td>
</tr>
<tr>
<td>820</td>
<td>Oncology</td>
<td>Spring, 3(6-0) Approval of department.</td>
</tr>
<tr>
<td>825</td>
<td>Laboratory Animal Pathology</td>
<td>Spring, 5(0-0) Graduate status and approval of department.</td>
</tr>
<tr>
<td>880</td>
<td>Special Problems</td>
<td>Fall, Winter, Spring, Summer. 1 to 6 credits. May re-enroll for a maximum of 10 credits.</td>
</tr>
<tr>
<td>882</td>
<td>Recreation Research Seminar</td>
<td>Fall, Winter, 2(2-0) May re-enroll for a maximum of 4 credits.</td>
</tr>
<tr>
<td>899</td>
<td>Research</td>
<td>Fall, Winter, Spring, Summer. 30 credits. May re-enroll.</td>
</tr>
</tbody>
</table>

**PATHOLOGY**

**College of Human Medicine**

**College of Osteopathic Medicine**

**College of Veterinary Medicine**

**404. General Pathology**

**Course Code:** 5(3-6) ANT 420, Junior Medical Technology majors, or approval of department.

**407. Clinical Pathology**

**Course Code:** Winter, Spring, 3 or 5 credits. 404 credits. Optional.

**502. Human Pathology I**

**Course Code:** Winter, 2(2-0) Second term medical students or approval of department.

**503. Human Pathology II**

**Course Code:** Spring, 3(2-2) 502 credits. May re-enroll for a maximum of 17 credits.

**504. Human Pathology III**

**Course Code:** Fall, 3(2-2) 502 credits. May re-enroll for a maximum of 17 credits.

**505. Human Pathology IV**

**Course Code:** Winter, 3(2-2) 504 credits. May re-enroll for a maximum of 17 credits.

**506. Human Pathology V**

**Course Code:** Spring, 3(2-2) 505 credits. May re-enroll for a maximum of 17 credits.

**608. Pathology Clerkship**

**Course Code:** Fall, Winter, Spring, Summer. 30 credits. May re-enroll for a maximum of 17 credits.

**650. Applied Veterinary Pathology**

**Course Code:** Fall, Winter, Spring, Summer. 5(1-12) Final year of veterinary medicine curriculum.

**800. Problems in Pathology**

**Course Code:** Fall, Winter, Spring, Summer. 30 credits. May re-enroll for a maximum of 3 credits.

**802. Advanced Histopathology**

**Course Code:** Fall, Winter, Spring, Summer. 5(0-0) Approval of department.

**803. Advanced Histopathology**

**Course Code:** Winter, 5(0-0) 809 credits. May re-enroll for a maximum of 8 credits.

**805. Pathology Seminars**

**Course Code:** Fall, 2(2-0) Approval of department.

**810. Post-Mortem Diagnosis**

**Course Code:** Winter, Summer. 3(0-0) May re-enroll for a maximum of 6 credits.

**811. Advanced Clinical Pathology**

**Course Code:** Spring, 3(0-0) Approval of department.

**812. Hematology**

**Course Code:** Winter, 5(3-4) 408 credits. May re-enroll for a maximum of 17 credits.

**820. Oncology**

**Course Code:** Spring, 3(6-0) Approval of department.

**825. Laboratory Animal Pathology**

**Course Code:** Spring, 5(0-0) Graduate status and approval of department.

**900. Advanced Correlative Pathology**

**Course Code:** Fall, Winter, Spring, Summer. 5(0-0) Approval of department.

**999. Research**

**Course Code:** Fall, Winter, Spring, Summer. 30 credits. May re-enroll.