Clinical Science
Spring. 1 to 8 credits. H M 520 or approval of department. Continuation of H M 520.

Clinical Science
Fall. 1 to 8 credits. H M 521 or approval of department. Continuation of H M 521.

Clinical Science
Winter. 1 to 8 credits. H M 522 or approval of department. Continuation of H M 522.

Clinical Science
Spring. 1 to 8 credits. H M 523 or approval of department. Continuation of H M 523.

Track II Focal Problem
Fall, Winter, Spring. 5(5-0) H M 550 or approval of college. Students may not receive credit in both H M 513 and H M 550, H M 551, H M 552.
Clinical problems around which basic science content is studied and approaches to problem-solving explored in combined small group, self-instructional format.

Track II Focal Problem
Fall, Winter, Spring. 5(5-0) H M 551 or approval of college. Students may not receive credit in both H M 513 and H M 550, H M 551, H M 552.
Clinical problems around which basic science content is studied and approaches to problem-solving explored in combined small group, self-instructional format.

Track II Focal Problem
Fall, Winter, Spring. 5(5-0) H M 550 or approval of college. Students may not receive credit in both H M 513 and H M 550, H M 551, H M 552.
Clinical problems around which basic science content is studied and approaches to problem-solving explored in combined small group, self-instructional format.

Track II Focal Problem
Fall, Winter, Spring. 5(5-0) H M 555 or approval of college. Students may not receive credit in both H M 514 and H M 555, H M 560, H M 561.
Clinical problems around which basic science content is studied and approaches to problem-solving explored in combined small group, self-instructional format.

Track II Focal Problem
Fall, Winter, Spring. 5(5-0) H M 550 or approval of college. Students may not receive credit in both H M 513 and H M 550, H M 551, H M 552.
Clinical problems around which basic science content is studied and approaches to problem-solving explored in combined small group, self-instructional format.

Track II Focal Problem
Fall, Winter, Spring. 5(5-0) H M 550 or approval of college. Students may not receive credit in both H M 513 and H M 550, H M 551, H M 552.
Clinical problems around which basic science content is studied and approaches to problem-solving explored in combined small group, self-instructional format.

Track II Focal Problem
Fall, Winter, Spring. 5(5-0) H M 550 or approval of college. Students may not receive credit in both H M 513 and H M 550, H M 551, H M 552.
Clinical problems around which basic science content is studied and approaches to problem-solving explored in combined small group, self-instructional format.

Track II Focal Problem
Fall, Winter, Spring. 5(5-0) H M 550 or approval of college. Students may not receive credit in both H M 513 and H M 550, H M 551, H M 552.
Clinical problems around which basic science content is studied and approaches to problem-solving explored in combined small group, self-instructional format.

Clinical Science
Winter. 1 to 5 credits.
The basic clinical skills of interviewing, physical examination and problem solving are taught in small group seminars utilizing models, patients and self-instructional materials.
570. Introduction to Behavioral Medicine
Fall. 3(3-0)
Survey of behavioral and social factors influencing health, illness, and the use of the health care system. Clinical and experimental examples of psychological and social influences on biological levels of organization.

572. Adult Through Aged Development
Spring. 2(2-0) FHD 571.
Characteristics of physical, cognitive, social and emotional development and change, late adolescence through senescence. Interaction of biological, psychological and social factors in the developmental process.

575. Problems of the Aged
Spring. 2(2-0) PSC 574.
Origin, course and treatment of disorders of function and behavior in the aged. Emphasis on biopsychosocial interaction, clinical and community perspectives and the health care system.

590. Special Problems in Human Medicine
Fall, Winter, Summer. 1 to 8 credits. May reenroll for a maximum of 38 credits. Human Medicine students or approval of college. Students will work under direction of a faculty member on an experimental, theoretical or applied problem. Students should employ the college-level course rather than departmental-level special problems courses, when their topics of interest require a broad multidisciplinary approach.

604. Hospital Care Clerkship
Fall, Winter, Spring, Summer. 16(0-16) Must reenroll for a total of 32 credits. FMP 602.

605. Comprehensive Care Clerkship
Fall, Winter, Spring, Summer. 18(0-18) Must reenroll for a total of 32 credits. FMP 602.
Comprehensive, longitudinal, ambulatory exposure to skills, problems, and content of primary disciplines of medical training. Fullfills departmental objective (when combined with H M 604) for required clerkship. Conducted in Escanaba, Michigan.

609. Sub-Specialty Clerkships
Fall, Winter, Spring, Summer. 1 to 17 credits. May reenroll for a maximum of 41 credits. FMP 602.
Hospital and office based clinical experiences in sub-specialties in medicine and surgery.

690. Fundamentals of Clinical Research
Fall, Winter, Spring, Summer. 6 credits. FMP 602.
Read and evaluate research based clinical literature. The research process from planning to implementation to summary.

IMPROVEMENT SERVICE
1 IS
College of Natural Science

1941. Quantitative Techniques
Fall, Winter. 2(2-0) Proficiency test referral or approval of department. Credits earned in this course are included in computation of GPA and MAPS but are not included in the 180 credits required for graduation.

Number system, rounding and estimating, fractions; decimals; percent; equations; formulas; direct and inverse proportion, including graphs; problem solving or applications; multiplication and division by powers of ten and their multiples; scientific notation; metric system conversions; bases other than ten.

INTERDISCIPLINARY COURSES

All University

255. Introduction to Contemporary China
Fall. 4(4-0) Interdisciplinary with James Madison College and the departments of Anthropology, Geography, History, and Political Science. Administered by the Department of History.
China's transition from traditional, agrarian state to modern nation in world community and overview of its recent political, economic, social, cultural and diplomatic developments. Approved through Fall 1990.

257. Contemporary Japan
Winter. 4(4-0) Interdisciplinary with the departments of Anthropology, Geography, History and James Madison College. Administered by the Department of Anthropology.
Contemporary Japanese society, governmental institutions and policies, religion and culture, foreign relations, industry, agriculture, management, Japan's social stability and economic development since World War II. Approved through Fall 1989.

341. Contemporary South Asia
Spring. 4(4-0) Interdisciplinary with the departments of Anthropology, Geography, and Political Science and James Madison College. Administered by the Department of Anthropology.
Current issues in India, Pakistan and other areas of South Asia, studied from interdisciplinary perspective using the major humanistic and social science disciplines. Approved through Winter 1991.

400V. Distinguished Visiting Professor Series
Fall, Winter, Spring. 2 to 5 credits. May reenroll for a maximum of 15 credits if different topics are taken. Approval of the student's major department.
The title, content, and credits to be determined by the college sponsoring the course in consultation with the visiting professor. May be counted as credit in any major upon approval of major department, division or dean.

HUMAN NUTRITION AND FOODS

See Food Science and Human Nutrition.

INTERNAL MEDICINE — Descriptions of Courses

College of Osteopathic Medicine

590. Special Problems in Internal Medicine
Fall, Winter, Spring, Summer. 1 to 8 credits. Approval of department. Each student will work under direction of a faculty member on an experimental, theoretical or applied problem.

620. Directed Studies
Fall, Winter, Spring, Summer. 2 to 24 credits. May reenroll for a maximum of 45 credits. Grade F in all courses offered in terms 1 through 8.
Individual or group work on special problems in medicine related to internal medicine.

650. Medicine Clerkship
Fall, Winter, Spring, Summer. 2 to 24 credits. May reenroll for a maximum of 34 credits. Grade P in all courses offered in terms 1 through 8.
Clinical exposure in osteopathic medicine. Program developed to achieve proficiency in motor skills and aptitudes; comprehension of concepts and principles; patient evaluation, diagnosis, management, and therapy.

651. Cardiology Clerkship
Fall, Winter, Spring, Summer. 8 to 8 credits. May reenroll for a maximum of 12 credits. Grade P in all courses offered in terms 1 through 8.
Intensive experience in bedside diagnosis and care of patients with the more frequently seen cardiac problems.

652. Gastroenterology Clerkship
Fall, Winter, Spring, Summer. 8 to 8 credits. May reenroll for a maximum of 12 credits. Grade P in all courses offered in terms 1 through 8.
Inpatient and outpatient clinical gastroenterology. Reinforcement of fundamentals of gastrointestinal diseases, including evaluation of GI patients, cost effectiveness in patient management, behavioral science related to patient care.

653. Oncology/Hematology Clerkship
Fall, Winter, Spring, Summer. 8 to 8 credits. May reenroll for a maximum of 15 credits. Grade P in all courses offered in terms 1 through 8.

654. Pulmonary Disease Clerkship
Fall, Winter, Spring, Summer. 6 to 8 credits. May reenroll for a maximum of 12 credits. Grade P in all courses offered in terms 1 through 8.
Evaluation and treatment of patients with common pulmonary diseases, including acute and chronic respiratory failure, primary and metastatic lung tumors, various bacterial and nonbacterial pneumonias.

655. Nephrology Clerkship
Fall, Winter, Spring, Summer. 6 to 8 credits. May reenroll for a maximum of 12 credits. I M 650 or approval of department.
Clinic and hospital based experience to develop basic skills in evaluation and management of patients with renal disease. Emphasis on integration of renal physiology and pathophysiology.