520. Clinical Science
Winter, 1 to 8 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.

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

Continuation of H M 520.

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

Continuation of H M 521.

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

Continuation of H M 522.

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

Continuation of H M 523.

529. Special Problems in Human Medicine
Fall, Winter, Spring, Summer, 1 to 6 credits. May reenroll for a maximum of 12 credits. Human Medicine students or approval of department.

Each student will work under direction of a faculty member of the college in an experimental, theoretical, or applied problem. A student should employ this college level course, as distinguished from the departmental level special problems course, when his topic of interest seems to require a broad multidisciplinary approach.

602. Fundamentals of Patient Care
Fall, Winter, Spring, Summer, 15 credits. Approval of department.

Introductory clinical experiences using selected patients with a broad spectrum of medical, surgical, pediatric, and psychiatric problems. History taking, physical examination and problem formulation are taught as a basis for rational and effective patient care.

604. Hospital Care Clerkship
Fall, Winter, Spring, Summer, 160-16
Must reenroll for a total of 32 credits. H M 602.


605. Comprehensive Care Clerkship
Fall, Winter, Spring, Summer, 180-16
Must reenroll for a total of 32 credits. H M 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 clerkships. Conducted in Escanaba, Michigan.

608. Sub-Specialty Clerkships
Fall, Winter, Spring, Summer, 1 to 17 credits. May reenroll for a maximum of 41 credits. H M 602.

Hospital and office based clinical experiences in sub-specialties in medicine and surgery.

609. Pre-Intern Clerkship
Fall, Winter, Spring, Summer, 12 credits. May reenroll for a maximum of 48 credits. Successful completion of required clerkships; approval of instructor.

Patient care responsibilities similar to internship, under close faculty and resident supervision, in a community hospital.

HUMAN NUTRITION AND FOODS

See Food Science and Human Nutrition.

IMPROVEMENT SERVICE

1S

College of Natural Science

1941. Quantitative Techniques
Fall, Winter, Spring, 3-2-0) 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.

1984. Contemporary Japan
Fall, Winter, Spring, 4-4-0) Interdisciplinary with the departments of Anthropology, Geography, and Political Science and James Madison College. Administered by the Department of History.

Contemporary Japanese society, governmental institutions and policies, religion and culture, foreign relations, industry, agriculture, management, Japanese social stability and economic development since World War II. Approved through Winter 1984.

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 History.

Current issues in India, Pakistan and adjoining areas. Regional case studies of population growth, agricultural and industrial development, urbanization, and international political and economic relations. Approved through Winter 1984.

400V. Distinguished Visiting Professor Series
Fall, Winter, Spring. Variable credit. 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.

INTERDISCIPLINARY COURSES

IDC

All University

200. Introduction to Resource Ecology
Fall, Winter, Spring, Summer, 3-3-0) Interdisciplinary with the departments of Fisheries and Wildlife, Forestry, Geography, Resource Development, and Zoology. Administered by the Department of Fisheries and Wildlife.

Basic concepts of ecology which are the unifying basis for resource management, conservation policy and the analysis of environmental quality. Extensive use of guest lecturers. Approved through Spring 1983.

233. Introduction to Women's Studies: Women's Consciousness
Winter, Spring, 4-4-0) Interdisciplinary with the colleges of Arts and Letters and Social Science. Administered by the College of Arts and Letters.

Development of women's consciousness in various historical, cross-cultural and scientific contexts. Concepts basic to feminist thought are clarified. Critique of sexism in traditional scholarship. Approved through Winter 1984.

447. Refugees, Displaced Persons, Exiles
Winter, 4-4-0) Juniors. Interdisciplinary with the departments of History, Political Science, Social Science, and Sociology. Administered by the Department of Social Science.


448. Issues in Refugee Assistance
Spring, 4-4-0) Juniors. Interdisciplinary with the departments of Political Science, Social Science and Sociology. Administered by the Department of Social Science.

Continuation of IDC 447. Refugee policy issues in developed and developing countries. Admissions levels; asylum; camps; relief and development; equity and tension with host; economic adjustment; ethnicity. Comparative refugee assistance. Approved through Fall 1984.
838. **Subsaharan Africa Seminar**  
Fall, Winter, Spring. 4(4-0) May reenroll for a maximum of 12 credits. Graduate standing or approval of instructor. Interdisciplinary with the departments of Anthropology, Economics, Geography, History, Linguistics and Oriental and African Languages, Political Science, and Sociology and the College of Education. Administered by the Department of Anthropology. 
Approved through Summer 1983.

**INTERNAL MEDICINE I M**

(Established effective January 1, 1981.)

**College of Osteopathic Medicine**

590. **Special Problems in Internal Medicine**  
Fall, Winter, Spring. 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. 2 to 24 credits. Grade P 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**  
(O M 650) Fall, Winter, Spring. 2 to 24 credits. May reenroll for a maximum of 24 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, aptitudes; comprehension of concepts and principles; patient evaluation, diagnosis, management, and therapy.

651. **Cardiology Clerkship**  
Fall, Winter, Spring. 6 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. 6 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. 6 credits. May reenroll for a maximum of 12 credits. Grade P in all courses offered in terms 1 through 8. Diagnosis, staging and treatment methods of solid tumors and other neoplasms. Pharmacology of cytotoxic agents. Issues in nutrition. Behavioral approaches to the terminally ill patient.

654. **Pulmonary Disease Clerkship**  
Fall, Winter, Spring, Summer. 6 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 credits. May reenroll for a maximum of 12 credits. Grade P in all courses offered in terms 1 through 8. Clinical 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.

656. **Neurology Clerkship**  
(O M 657) Fall, Winter, Spring, Summer. 6 credits. May reenroll for a maximum of 12 credits. Grade P in all courses offered in terms 1 through 8. Clinical exposure in area of neurology. Program structure developed to achieve proficiency in motor skills, aptitudes; comprehension of concepts and principles; patient evaluation, diagnosis, management, and therapy.

**ITALIAN**

See Romance and Classical Languages.

**JAMES MADISON COLLEGE M C**

111. **Identity and Community in America: An Approach to Writing**  
Fall. 3(3-0).  
Identity in contemporary America. Emphasis on family, love, work, education, race. Materials include journals, biographies, fiction, films, and essays. Students write narratives, autobiographies, and critical analyses based on personal experience.

112. **Identity and Community in America: An Approach to Writing**  
Winter. 3(3-0). M C 111.  
The quest for community in early America. Authority, autonomy, and morality in the 'good society.' Materials include literary and historical sources. Students write expository and argumentative essays.

113. **Identity and Community in America: An Approach to Writing**  
Spring. 3(3-0). M C 112.  
Identity and community in American society under stress, such as the Great Depression of Civil War. Materials include fiction, interviews, photography, films. Students investigate primary documents and write expository essays.

200. **Introduction to the Study of Policy Problems**  
Fall. 4(4-0)  
Introduction to the social sciences and related disciplines as these apply to the study of major social, economic and political problems.

201. **Introduction to the Study of Policy Problems**  
Winter. 4(4-0) M C 200.  
Continuation of M C 200.

202. **Introduction to the Study of Policy Problems**  
Spring. 4(4-0) M C 201.  
Continuation of M C 201.

205. **Methodology for Policy Sciences**  
Fall, Winter, Spring. 4(3-1)  
Introduction to the logic of social research, techniques of data collection, and procedures in quantification. Emphasis will be on interpretation and evaluation of findings for policy decision making.

215. **Utopia and the Quest for Social Progress**  
Spring. 4(3-0)  
Survey of utopian thought and literary utopias combined with detailed study of selected major utopias from 'The Republic' to 'Walden Two.'

218. **Contemporary Ideologies**  
Fall. 4(3-0) Students may not receive credit in both M C 218 and PLS 170.  
The doctrines by which socio-political movements justify and explain their goals and programs. An introduction to such movements and doctrines as socialism, communism, fascism, nationalism and democracy.

220. **Contemporary World Politics**  
Fall, Winter. 4(3-0) Students may not receive credit in both M C 220 and PLS 160.  
Theories explaining actions and interactions of nation-states, regions, and political movements. Analysis of histories, capabilities, and policies. Examination of factors accounting for conflict and collaboration in international relations.

221. **The American Foreign Policy Establishment**  
Winter. 4(3-0) M C 220 recommended. Institutions, processes and doctrines of contemporary American foreign policy. The role of the Presidency, Congress, governmental agencies, pressure groups and public opinion.

226. **Socio-Cultural Factors in Developmental Change**  
Spring. 4(3-0) M C 220 recommended.  
The network of socio-cultural institutions related to economic decay, stagnation, or development. Conditions under which socio-cultural factors accelerate or retard economic development.

229. **The Arab-Israeli Conflict**  
Fall of even-numbered yrs. 4(3-0)  
Analysis of major political and ideological issues in the Arab-Israeli conflict since 1948. Examination of the causes and consequences of unresolved problems and evaluation of alternative solutions.