HUMAN NUTRITION AND FOODS

See Food Science and Human Nutrition.

IMPROVEMENT SERVICE IS

All University

1941. Quantitative Techniques
Fall, Winter, Spring, Summer. 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 IDC

All University

1005. Career Planning and Academic Programming
Winter, Spring. 1(1-0) Credits earned in this course are included in computation of GPA and MAPS but are not included in the 180 credits required for graduation. Administered by the Department of Natural Science. Philosophical and practical aspects of making career choices and designing academic programs to meet career objectives. Tools and techniques for self-evaluation and evaluation of career alternatives; employability, trends in occupations. Approved through Summer 1981.

200. Resource Ecology and Man
Fall, Winter, Spring. 3(3-0) Interdisciplinary with the following departments: Anthropology, Botany and Plant Pathology, Fisheries and Wildlife, Forestry, Geography, Park and Recreation Resources, Resource Development, and Zoology. Administered by the Department of Fisheries and Wildlife. Mechanisms by which the environment regulates man and his resources. Ecology as the unifying theme for resource management. Resource conservation policy and environmental quality. Approved through Summer 1981.

210. Introduction to Latin America I
Fall. 3(3-0) Interdisciplinary with the departments of Anthropology, Geography, Music, and Romance and Classical Languages. Administered by the Department of Romance and Classical Languages. Specialists on Latin American geography, anthropology, and Romance and Classical Languages. Introduce the student to life in Central and South America. Approved through Summer 1982.

211. Introduction to Latin America II
Winter. 3(3-0) Interdisciplinary with the departments of Art, Romance and Classical Languages, and Sociology. Administered by the Department of Romance and Classical Languages. Specialists in the historical literature, art and sociology of Latin America introduce the student to the culture of the area.

212. Introduction to Latin America III
Spring. 3(3-0) Interdisciplinary with the departments of Economics, Political Science, and Romance and Classical Languages. Administered by the Department of Romance and Classical Languages. Specialists on Latin American political science, economics and contemporary literature introduce the student to Ibero-America.

255. Continuing Revolution in China: Problems and Approaches
Fall. 4(4-0) Interdisciplinary with the departments of Anthropology, Geography, History, and Political Science. Administered by the Department of History. Interdisciplinary approach. The continuing revolution in China viewed historically, then as it has affected the international relations of China, and finally as it has affected China relations with other nations. Approved through Summer 1981.

256. Energy Consumption and Environmental Quality (N)
Spring. 3(3-0) Interdisciplinary with Lyman Briggs College and the Department of Physics. Administered by the Department of Physics. The role of energy as a fundamental pollutant will be discussed along with the availability of fossil fuel energy sources. Limitations on the safe utilization of both fossil fuel and nuclear energy will also be considered. Approved through Summer 1981.

341. Contemporary Problems of South Asia
Spring. 4(4-0) Not open to Freshmen. Interdisciplinary with the departments of Anthropology, Geography, and Political Science. Administered by the Department of Political Science. Current problems in India, Pakistan and adjoining areas, studied through regional case studies of population growth, agricultural and industrial development, urbanization, and internal and international political and economic relationships. Approved through Summer 1981.

345. Modernization: The Middle East
Winter, Spring. 4(4-0) Not open to Freshmen. Interdisciplinary with the departments of Anthropology, Geography, and History. Administered by the Department of Social Science. Social, economic, and political development of the Middle East. Interdisciplinary approach. Approved through Summer 1981.

384. Contemporary Problems of Japan
Winter. 4(4-0) Not open to Freshmen. Interdisciplinary with the departments of Anthropology, Geography, and History. Administered by the Department of Geography. Current problems in Japan studied through case studies of major policy issues, agricultural and industrial development, urbanization, student and youth movement, political and governmental institutions, and problems of external relations. Approved through Summer 1981.

390. Survey of Sub-Saharan Africa
Winter. 4(4-0) Credits may be counted in any of the cooperating departments. Interdisciplinary with the following departments: Anthropology, Geography, History, Political Science and Sociology. Administered by the Department of Geography. Africa introduced through integration of the approaches of several disciplines in the social sciences and humanities. Designed as basis for further work in departmental African area courses. Approved through Summer 1981.

391. Survey of Sub-Saharan Africa
Spring. 4(4-0) Credits may be counted in any of the cooperating departments listed in IDC 390. Administered by the Department of Geography. Continuation of IDC 390. Approved through Summer 1981.

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.

401. Interdisciplinary Issues in Aging
Winter. 4(4-0) Administered by the Department of Natural Science. Interdisciplinary and cross cultural exploration of the aging process. Complement, compare and contrast with aging as a personal experience as well as a biological, social, and psychological event. Approved through Summer 1981.

432. Introduction to Meteorology
Spring. 3(3-0) Interdisciplinary with the departments of Agricultural Engineering and Geology. Administered by the Department of Agricultural Engineering. Atmospheric science view of earth's atmosphere, its physical structure, energy and moisture balance, vertical and horizontal motions, formation of air masses, general circulation, fronts, cyclones, and weather. Applications of meteorology. Approved through Summer 1981.

433. Introductory Meteorology Laboratory
Spring. 1(0-2) IDC 432 or concurrently. Credit may be counted in either of the cooperating departments. Interdisciplinary with the departments of Agricultural Engineering and Geology. Administered by the Department of Agricultural Engineering. Analysis of meteorological data, meteorological experimentation and instrumentation. Approved through Summer 1981.

435. Microclimatology
Fall. 3(3-0) MTH 108. Administered by the Department of Agricultural Engineering. The physical environment in the lower few hundred meters of the atmosphere and within the biosphere is described and the components of the energy budget are qualitatively evaluated. Approved through Summer 1981.
447. Refugees, Displaced Persons, Hostage, Exiles
Spring. 4(4-0) Juniors. Interdisciplinary with the departments of History, Political Science, Social Science, and Sociology. Administered by the Department of Social Science.
The new refugeeism is caused mainly by the new nations' emergence into independence. Course examines historical experiences, political causes and solutions, shocks and adjustments of assimilation, social life and organizations of refugees.
Approved through Summer 1981.

470. Biological Membranes
Spring. 3(3-0) BCH 401. Interdisciplinary with the departments of Biophysics, Biochemistry, Microbiology and Public Health, and Physiology. Administered by the Department of Physiology.
The chemistry, physics and mathematics of the permeability, energy transductions and surface functions of differentiated cell membranes and membranous organelles are compared. A brief discussion of theoretical and experimental models is included.
Approved through Winter 1983.

476. Canadian-American Studies
Spring. 4(3-0). May enroll for a maximum of 8 credits. Juniors. Credits may be counted in any of the cooperating departments. Interdisciplinary with the following: Anthropology, Secondary Education, English, Geography, History, and Romance and Classical Languages. Administered by the Canadian-American Studies Committee.
Introduction to Canadian-American studies. Materials from various disciplines enable the student to integrate subject-matter, areas, and methodology. Content varies from term to term, but course is a focus upon significant issues and subjects in the interrelated fields of Canada and the United States.
Approved through Summer 1981.

Winter. 4(5-0) Interdisciplinary with the following: Agriculture and Natural Resources, and the departments of Animal Husbandry, Crop and Soil Sciences, Dairy Science, Large Animal Surgery and Medicine, and Poultry Science. Administered by the Department of Animal Husbandry.
The role of the domesticated animal resources of the underdeveloped world as managed by man to produce essential nutrients to alleviate starvation and deficiency disease and in diversifying economic development in the utilization of land resources.
Approved through Summer 1981.

803. Seminar in Industrial Relations
Fall, Winter, Spring. 4(3-0). May enroll for a maximum of 16 credits; all approved to the student's major field, with approval of the student's major department. Conducted jointly by the departments of Economics, Management, Political Science, Psychology, and Sociology, and the School of Labor and Industrial Relations. Administered by the School of Labor and Industrial Relations.
Research and literature in industrial relations with emphasis on current research.
Approved through Summer 1981.

810. Aging and Communication
Spring. 3(3-0) Approval of instructor. Interdisciplinary with the Department of Family and Child Ecology, the School of Social Work, and the College of Communication Arts and Sciences. Administered by the Department of Family and Child Ecology.
Knowledge and understanding of the importance of communication for older people in various spheres of their lives. Developmental changes in speech, language, and sensory acuity and their implications.
Approved through Winter 1982.

838. Interdisciplinary Seminar on Africa
Fall. 4 credits. Approval of department. Credits may be counted in any of the cooperating departments. Interdisciplinary with the following departments: Anthropology, Economics, Education, Geography, History, Linguistics, Political Science, and Sociology. Administered by the Department of Anthropology.
Behavioral science problems in an African setting, viewed from perspective of relevant social science and humanistic disciplines associated with African Studies Center.
Approved through Summer 1981.

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(2-0) M C 111.
The quest for community in early America. Autonomy, authority, and morality in the "good society." Materials include literary and historical sources, films, and community studies. Students write expository and argumentative essays.

113. Identity and Community in America: An Approach to Writing
Spring. 3(2-0) M C 112.

200. Introduction to the Study of Policy Problems
Spring. 3(2-0) M C 113.
Introduction to the social sciences and related disciplines as they apply to the study of major social, economic and political problems.