

**Descriptions — Human Medicine
of
Courses**

532. Human Biology and Behavior
Fall. 1 to 8 credits. 531 or approval
of department.
Continuation of 531.

533. Human Biology and Behavior
Winter. 1 to 8 credits. 532 or ap-
proval of department.
Continuation of 532.

534. Human Biology and Behavior
Spring. 1 to 8 credits. 533 or ap-
proval of department.
Continuation of 533.

**590. Special Problems in Human
Medicine**
Fall, Winter, Spring, Summer. 1 to 6
credits. May re-enroll for a maximum of 12
credits. Human Medicine students.
Each student will work under direction of a
faculty member of the college on an experi-
mental, theoretical or applied problem. A stu-
dent should employ this college level course,
as distinguished from the departmental level
special problems course, when his topic of in-
terest 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 prob-
lem formulation are taught as a basis for rati-
onal and effective patient care.

603. Human Biology and Behavior
Spring. Variable credit. May re-enroll
for a maximum of 15 credits. 602.
Continuation of 602.

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

609. Radiology Clerkship
Fall, Winter, Spring, Summer. 1 to
17 credits. May re-enroll for a maximum of
34 credits. 602.
Office and hospital based experience to acquaint
the student with basic radiological information
and develop X-ray interpretation skills.

610. Family Practice Clerkship
Fall, Winter, Spring, Summer. 1 to
17 credits. May re-enroll for a maximum of
43 credits. 602.
A clerkship in a model family practice unit
with graded responsibility and supervision in
the care of families and their medical problems
with emphasis on primary, continuing and com-
prehensive care.

611. Anesthesiology Clerkship
Fall, Winter, Spring, Summer. 1 to
17 credits. May re-enroll for a maximum of
34 credits. 602.
Introducing common anesthetic agents and tech-
niques, the Anesthesia Clerkship stresses pre-
operative evaluation of physical and psychologi-
cal status of patients and provides opportunity
for performance of anesthetic procedures under
supervision.

**HUMAN NUTRITION
AND FOODS**

See Food Science and Human Nutrition

**IMPROVEMENT
SERVICES**

IS

All University

194. Quantitative Techniques
Fall, Winter, Spring, Summer. 2(2-0)
Proficiency test referral or approval of depart-
ment.
Number system; rounding and estimating; frac-
tions; decimals; percent; equations; formulas;
direct and inverse proportion, including graphs;
problem solving or applications; multiplication
and division by powers of ten and their mul-
tiples; scientific notation; metric system con-
versions; bases other than ten.

**INTERDISCIPLINARY
COURSES**

IDC

All University

**100. Career Planning and Academic
Programming**
Spring. 1(1-0) Administered by Uni-
versity College.
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 al-
ternatives; employability, trends in occupations.

200. Resource Ecology and Man
Fall, Winter, Spring. 3(3-0) Inter-
disciplinary with the following departments:
Anthropology, Botany and Plant Pathology, Fish-
eries and Wildlife, Forestry, Geography, Park
and Recreation Resources, Resource Develop-
ment, and Zoology. Administered by the Fish-
eries and Wildlife Department.
Mechanisms by which the environment regulates
man and his resources. Ecology as the unifying
basis for resource management. Resource con-
servation policy and environmental health.

**201. Introduction to Environmental
Systems**
(SYS 150.) Fall, Winter, Spring.
3(3-0) Interdisciplinary with Systems Science
and Engineering. Administered by Systems
Science.
Basic systems concepts presented in a non-
mathematical manner. Application to selected
ecological topics, e.g., energy, water quality, food
production, population dynamics. Interactive
models provide opportunity for students to play
decision-making role.

**203. Introduction to Study of the
Moon**
Spring. 3(3-0) Interdisciplinary with
the departments of Astronomy, Geography, and
Geology and administered by the Geology De-
partment.
Lunar science presented from the viewpoints of
astronomy, geography and geology with par-
ticular emphasis on the increasing importance
of the moon in man's present and future.
Evening lunar observations required.

220. The Politics of Ecology
Spring. 4(3-0) Interdisciplinary with
the departments of Political Science and Social
Science and administered by the Department of
Social Science.
Political considerations fundamental to environ-
mental issues. Theory, practice, and prescrip-
tions for action are included. Economic, legal,
and ethical factors influencing public policy
decisions will be emphasized.

**221. The Role of Helping Professions
and Organizations in Community
Services**
Fall, Winter, Spring. 4(3-1) Inter-
disciplinary with Justin Morrill College and
the Department of Family Ecology. Admin-
istered by the Department of Family Ecology.
Analysis of human and community needs; re-
view and examination of existing and emerging
resources to meet those needs; role of pro-
fessionals and volunteers in providing community
and human services.

**255. Continuing Revolution in China:
Problems and Approaches**
(389.) Fall. 4(4-0) Not open to
Freshmen. Interdisciplinary with the depart-
ments of Anthropology, Geography, and History
and administered by the Department of History.
The continuing revolution in China viewed first
historically, then as it has affected various sec-
tors of Chinese society, and finally as it has
affected China's relations with other nations.

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

**341. Contemporary Problems of South
Asia**
Spring. 4(3-0) Not open to Fresh-
men. Administered by the Geography Depart-
ment.
Current problems in India, Pakistan and ad-
joining areas, studied through regional case
studies of population growth, agricultural and
industrial development, urbanization, and in-
ternal and international political and economic
relationships.

344. Modernization: India and Japan
Winter, Spring. 4(4-0) Not open to
Freshmen. Administered by the Department
of Social Science.
Social, economic, and political development of
non-western cultures in the movement from the
traditional, non-industrial to the modernizing,
industrializing stage.

345. Modernization: The Middle East
Winter, Spring. 4(4-0) Not open to
Freshmen. Administered by the Department of
Social Science.
Social, economic, and political development of
non-western cultures in the movement from the
traditional, non-industrial to the modernizing,
industrializing stage.

346. Far East: Contemporary Issues and Problems

Spring. 4(4-0) Administered by the Department of Social Science

Contemporary political, economic and social issues in the Far East affecting relationships among Far Eastern peoples and relationships between these peoples and the United States and other powers.

347. Refugees, Displaced Persons, Hostages, Exiles

Spring. 4(4-0) Juniors. Interdisciplinary with the departments of History, Political Science, Social Science and Sociology and administered by the Department of Social Science.

The new refugedom 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.

384. Contemporary Problems of Japan

(342.) Winter. 4(3-0) Not open to Freshmen. Interdisciplinary with the departments of Anthropology, Geography, and History. Administered by the Department of Geography.

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 cooperating: Anthropology, Geography, History, Political Science, and Sociology. Administered by the Geography Department.

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.

391. Survey of Sub-Saharan Africa

Spring. 4(4-0) Credits may be counted in any of the cooperating departments listed in 390. Administered by the Geography Department. Continuation of 390.

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.

421. Seminar on Recent Advances in Science and Mathematics

Fall, Winter, Spring, Summer. 2(2-0) May re-enroll for a maximum of 6 credits. Bachelor's degree.

A structured course which cuts across the other four major offerings. Selected topics in recent developments will be discussed by staff members and guest lecturers. Recent research is stressed and effort is made to show the inter-relatedness of the topics to general science course content materials.

432. Introduction to Meteorology

Spring. 3(3-0) Credit may be counted in either of the cooperating departments. Interdisciplinary with the Departments of Agricultural Engineering and Geology. Administered by the Agricultural Engineering Department.

A purview of atmospheric science including a study of the interactions between meteorology and living organisms.

433. Introductory Meteorology Laboratory

Spring. 1(0-2) 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 Agricultural Engineering Department.

Weather map analysis, meteorological experimentation and instrumentation.

435. Microclimatology

Fall. 3(3-0) MTH 108. Administered by Agricultural Engineering Department.

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.

476. Canadian-American Studies

Spring. 4(3-0) May re-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, Marketing and Transportation Administration, and Romance 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 always focused upon significant issues and subjects in the interrelated fields of Canada and the United States.

488. The Impact of Animal Resource Management Upon the World's Developing Nations

Winter. 4(5-0) Interdisciplinary with the following departments: Agriculture, Animal Husbandry, Crop and Soil Sciences, Dairy Science, Large Animal Surgery and Medicine, and Poultry Science, and administered by the Animal Husbandry Department.

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.

800V. 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.

803. Seminar in Industrial Relations

Fall, Winter, Spring. 4(3-0) May re-enroll for a maximum of 16 credits, all applicable 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.

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 Anthropology Department.

Behavioral science problems in an African setting, viewed from perspective of relevant social science and humanistic disciplines associated with the African Studies Center.

ITALIAN

See Romance Languages

JAMES MADISON COLLEGE

M C

111. American Thought and Language

Fall. 3(3-0) Students may not receive credit in both M C 111 and ATL 121, 131, 141, 151, 161, 171, 181, 191H.

Emphasis is on language skills, particularly expository writing and effective reading through the use of selected American documents, political, social and literary.

112. American Thought and Language

Winter. 3(3-0) 111. Students may not receive credit in both M C 112 and ATL 122, 132, 142, 152, 162, 172, 182, 192H.

Continuation of 111.

113. American Thought and Language

Spring. 3(3-0) 112. Students may not receive credit in both M C 113 and ATL 123, 133, 143, 153, 163, 173, 183, 193H.

Continuation of 112.

200. Introduction to the Study of Policy Problems

Fall, Winter. 4(2-2)

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(2-2) 200.

Continuation of 200.

202. Introduction to the Study of Policy Problems

Spring. 4(2-2) 201.

Continuation of 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.