### 202. Humanities in the Western World: Medieval and Early Modern (A)

Fall, Winter, Spring, Summer. 4(4-0) Sophomores: Recommend HUM 201; or HUM 211, HUM 221, HUM 261, or HUM 281H. Students may not receive credit in more than one of the following: HUM 202, HUM 212, HUM 222, HUM 262, HUM 282H.

Deals with the medieval and early modern periods of Western culture.

### 203. Humanities in the Western World: Modern (A)

Fall, Winter, Spring, Summer, 4(4-0) Sophomores; Recommend HUM 202; or HUM 212, HUM 222, HUM 262, or HUM 282H. Students may not receive credit in more than one of the following: HUM 203, HUM 213, HUM 223, HUM 263, HUM 283H.

Deals with aspects of modern Western culture from 1700 to 1945.

# 204. The Humanities in the Contemporary World (A)

Fall, Winter, Spring. 4(4-0) Sopho-

mores.

Interdisciplinary study of the literature, philosophy, religion, architecture, painting, sculpture, music, film, and other performing arts of the era since 1945 as they reflect and influence the character of contemporary civilization.

### 211. Great Books of Western Culture, Ancient (A)

Fall. 4(4-0) Sophomores. Students may not receive credit in more than one of the following: HUM 201, HUM 211, HUM 221, HUM 261, HUM 281H.

Emphasizes selected major works of literature, philosophy, religion, history, and art in an interdisciplinary study of the origins of Western culture in the civilizations of Greece and Rome and in the Judeo-Christian tradition. Uses selected paperbacks, history and art texts.

### 212. Great Books of Western Culture, Medieval and Early Modern (A)

Winter. 4(4-0) Sophomores; Recommend HUM 211; or HUM 201, HUM 221, HUM 261 or HUM 281H. Students may not receive credit in more than one of the following: HUM 202, HUM 212, HUM 222, HUM 262, HUM 282H.

Emphasizes selected major literary, philosophical, religious, historical and artistic works of the medieval and early modern periods of Western culture.

### 213. Great Books of Western Culture, Modern (A)

Spring. 4(4-0) Sophomores; Recommend HUM \$12; or HUM 202, HUM 222, HUM 262 or HUM 282H. Students may not receive credit in more than one of the following: HUM 203, HUM 213, HUM 223, HUM 263, HUM 283H

Selected major literary, philosophical, religious, historical and artistic works of the modern period of Western culture.

# 221. The Visual Arts and Western Culture, Ancient (A)

Fall. 4(4-0) Sophomores. Students may not receive credit in more than one of the following: HUM 201, HUM 211, HUM 221, HUM 261, HUM 281H.

Emphasizes the visual arts in an interdisciplinary study of the origins of Western culture in the civilizations of Greece and Rome and in the Judeo-Christian tradition. Uses an art history text, a history text, and anthology of readings and selected paperbacks.

### 222. The Visual Arts and Western Culture, Medieval and Early Modern (A)

Winter. 4(4-0) Sophomores. Recommend HUM 221; or HUM 201, HUM 211, HUM 261 or HUM 281H. Students may not receive credit in more than one of the following: HUM 202, HUM 212, HUM 222, HUM 262, HUM 282H.

The visual arts in the culture of the medieval and early modern periods of Western civilization.

# 223. The Visual Arts and Western Culture, Modern (A)

Spring. 4(4-0) Sophomores. Recommend HUM 222; or HUM 202, HUM 212, HUM 262 or HUM 282H. Students may not receive credit in more than one of the following: HUM 203, HUM 213, HUM 223, HUM 263, HUM 283H.

The visual arts in modern culture since 1700.

### 261. Music and Western Culture, Ancient (A)

Fall. 4(4-0) Sophomores. Students may not receive credit in more than one of the following; HUM 201, HUM 211, HUM 221, HUM 261, HUM 281H, MUS 211.

Emphasizes music in an interdisciplinary study of the origins of Western culture in the civilizations of Greece and Rome and in the Judeo-Christian tradition. Uses live and recorded music, an art and music text, a history text, an anthology of readings, and selected paperbacks.

### 262. Music and Western Culture, Medieval and Early Modern (A)

Winter: 4(4-0) Sophomores. Recommend HUM 261; or HUM 201, HUM 211, HUM 221 or HUM 281H. Students may not receive credit in more than one of the following: HUM 202, HUM 212, HUM 222, HUM 262, HUM 282H, MUS 212.

Interrelationships of music with other aspects of medieval and early modern Western culture.

### 263. Music and Western Culture, Modern (A)

Spring. 4(4-0) Sophomores. Recommend HUM 262; or HUM 202, HUM 212, HUM 222 or HUM 282H. Students may not receive credit in more than one of the following: HUM 203, HUM 213, HUM 223, HUM 263, HUM 283H, MUS 213.

Interrelationships of music with other aspects of modern Western culture since 1700.

## 279. Selected Topics in the Humanities

(HUM 272.) Fall, Winter, Spring. 3 to 5 credits. May reenroll for a maximum of 8 credits if different topic is taken.

Interdisciplinary study of topics in the humani-

### 281H. Honors Course: Ancient World (A)

Fall. 4(4-0) Sophomores; approval of department. Students may not receive credit in more than one of the following: HUM 201, HUM 211, HUM 221, HUM 261, HUM 281H.

Western culture through its origins in the civilizations of Greece and Rome and in the Judeo-Christian tradition. Uses history and art texts, selected paperbacks, and other examples from the fields of history, literature, philosophy, religion and art.

### 282H. Honors Course: Medieval and Early Modern Periods (A)

Winter. 4(4-0) Sophomores; approval of department. Students may not receive credit in more than one of the following: HUM 202, HUM 212, HUM 222, HUM 262, HUM 282H.

Deals with the medieval and carly modern stages of Western civilization.

### 283H. Honors Course: Modern World (A)

Spring. 4(4-0) Sophomores; approval of department. Students may not receive credit in more than one of the following: HUM 203, HUM 213, HUM 223, HUM 263, HUM 283H. Deals with modern Western culture since 1700.

# 294. The Cultural Traditions of the Islamic World (A)

Fall, Winter, Spring. 4(4-0)

An interdisciplinary study of major artistic, literary, philosophical, and religious aspects of the culture of the Islamic world in historical context.

# 295. The Cultural Traditions of Sub-Saharan Africa (A)

Fall, Winter, Spring. 4(4-0)

An interdisciplinary study of major artistic, literary, musical, philosophical, and religious aspects of the culture of Sub-Saharan Africa in historical context.

## 296. The Cultural Traditions of Japan

Fall, Winter, Spring. 4(4-0)

An interdisciplinary study of major artistic, literary, and religious aspects of the culture of Japan in historical context.

## 297. The Cultural Traditions of India

Fall, Winter, Spring. 4(4-0)

An interdisciplinary study of major artistic, literary, philosophical, and religious aspects of the culture of India in historical context.

## 298. The Cultural Traditions of China

Fall, Winter, Spring. 4(4-0)

An interdisciplinary study of major artistic, literary, musical, philosophical, and religious aspects of the culture of China in historical context.

### 300. Supervised Individual Study

Fall, Winter, Spring, Summer. 1 to 4 credits. May reenroll for a maximum of 12 credits. Six credits in humanities general education; approval of department.

Selected students requesting individual study of interdisciplinary problems. Variable elective credit will be determined when the student secures instructor, adviser, and department approval.

## HUMAN MEDICINE H M (COLLEGE OF)

### 500. Preceptorship Training

Fall, Winter, Spring, Summer. 3 to 12 credits. May reenroll for a maximum of 36 credits. No more than 3 credits toward degree requirements. One year of medical school. Interdepartmental with the Department of Family Practice.

Field experience in primary care taught by primary care physicians throughout the state to medical students from Michigan State University, University of Michigan and Wayne State University.

#### 505. **Patient Interaction**

Fall. 2(2-0) ANT 505A concurrently.

Students participate in experiences dealing with certain aspects of interviewing and performing a physical examination. Focus is primarily on self-observation and exploration of student-patient interaction.

#### Introduction to Focal Problems 510.

Fall. 1 to 12 credits. Admission to College of Human Medicine.

Small group discussions concerned with instruction in the processes of medical problem solving and the integrated learning of basic and clinical medical science concepts around common problems seen in medical practice.

#### 512. Track I Focal Problems

Spring. 1 to 12 credits. H M 510 or approval of college. Students may not receive credit in both H M 512 and H M 545, H M 546,

Small group discussions concerned with instruction in the processes of medical problem solving and the integrated learning of basic and clinical medical science concepts around common problems seen in medical practice.

#### Track I Focal Problems 513.

Fall. 1 to 12 credits. H M 512 or approval of college. Students may not receive credit in both H M 513 and H M 550, H M 551,

Small group discussions concerned with instruction in the processes of medical problem solving and the integrated learning of basic and clinical medical science concepts around common problems seen in medical practice.

#### 514. Track I Focal Problems

Winter. 1 to 12 credits. H M 513 or approval of college. Students may not receive credit in both H M 514 and H M 555, H M 560,

Small group discussions concerned with instruction in the processes of medical problem solving and the integrated learning of basic and clinical medical science concepts around common problems seen in medical practice.

#### Track I Focal Problems 515.

Spring. 1 to 12 credits. H M 514 or approval of college. Students may not receive credit in both H M 515 and H M 565, H M 566, H M 567.

Small group discussions concerned with instruction in the processes of medical problem solving and the integrated learning of basic and clinical medical science concepts around common problems seen in medical practice.

#### Clinical Science 520.

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.

### 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.

#### 524. 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. 6(6-0) Completion of H M 510, approval of college. Students may not receive credit in both H M 511 and H M

Clinical problems around which basic science content is studied and approaches to problem-solving explored in combined small group, selfinstructional format.

### Track II Focal Problem

Fall, Winter, Spring. 6(6-0) Completion of H M 540 or approval of college. Students may not receive credit in both H M 511 and H M 540, H M 541.

Clinical problems around which basic science content is studied and approaches to problem-solving explored in combined small group, selfinstructional format.

### Track II Focal Problem

Fall, Winter, Spring. 5(5-0) H M 541 or approval of college. Students may not receive credit in both H M 512 and H M 545, H M 546, H M 547.

Clinical problems around which basic science content is studied and approaches to problem-solving explored in combined small group, selfinstructional format.

### Track II Focal Problem

Fall, Winter, Spring. 5(5-0) H M 545 or approval of college. Students may not receive credit in both H M 512 and H M 545, H M 546, H M 547

Clinical problems around which basic science content is studied and approaches to problem-solving explored in combined small group, selfinstructional format.

### Track II Focal Problem

Fall, Winter, Spring. 5(5-0) H M 546 or approval of college. Students may not receive credit in both H M 512 and H M 545, H M 546, H M 547

Clinical problems around which basic science content is studied and approaches to problem-solving explored in combined small group, selfinstructional format.

#### Track II Focal Problem 550.

Fall, Winter, Spring. 5(5-0) H M 547 or approval of college. Students may not receive credit in both H M 513 and H M 550, H M 551,

Clinical problems around which basic science content is studied and approaches to problemsolving explored in combined small group, selfinstructional 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 problemsolving explored in combined small group, selfinstructional format.

#### Track II Focal Problem 552.

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,

Clinical problems around which basic science content is studied and approaches to problem-solving explored in combined small group, selfinstructional format.

#### 555. Track II Focal Problem

Fall, Winter, Spring. 5(5-0) H M 552 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, selfinstructional 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,

Clinical problems around which basic science content is studied and approaches to problemsolving explored in combined small group, selfinstructional format.

### Track II Focal Problem

Fall, Winter, Spring. 5(5-0) H M 560 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, selfinstructional format.

#### 565. Track II Focal Problem

Fall, Winter, Spring. 5(5-0) H M 561 or approval of college. Students may not receive credit in both H M 515 and H M 565, H M 566, H M 567.

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 565 or approval of college. Students may not receive credit in both H M 515 and H M 565, H M 566,

Clinical problems around which basic science content is studied and approaches to problem-solving explored in combined small group, self-instructional format.

#### 567. Track II Focal Problem

Fall, Winter, Spring. 5(5-0) H M 566 or approval of college. Students may not receive credit in both H M 515 and H M 565, H M 566,

Clinical problems around which basic science content is studied and approaches to problem-solving explored in combined small group, self-instructional format.

### Introduction to Behavioral Medicine

Fall. 3(3-0)

Survey of behavioral and social factors influencing health, illness, and use of the health care system. Clinical and experimental examples of psychological and social influences on biological levels of organization.

#### Adult Through Aged Development 572. Spring. 2(2-0) PHD 571.

Characteristics of physical, cognitive, social and emotional development and change, late adolescence through senescence. Interaction of biologic, psychologic 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 com-munity perspectives and the health care system.

### 590. 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 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 departmentallevel 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

Longitudinal, inpatient exposure to severe hospital and consultative care problems. Patient management stressed. Fullfills departmental clerkship objectives (when combined with H M 605). Conducted in Marquette, Michigan.

### 605. Comprehensive Care Clerkship

Fall, Winter, Spring, Summer. 16(0-16) 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 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. 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.

# HUMAN NUTRITION AND FOODS

See Food Science and Human Nutrition.

### IMPROVEMENT SERVICE 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

## 1010

IDC

### 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. Japanese 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 Anthroplogy, 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 1989.

### 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.

### INTERNAL MEDICINE I M

### **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 48 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

Fall, Winter, Spring, Summer. 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 and aptitudes; comprehension of concepts and principles; patient evaluation, diagnosis, management, and therapy.

### 651. Cardiology 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.

Intensive experience in bedside diagnosis and care of patients with the more frequently seen cardiac problems.

### 652. Gastroenterology 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.

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. 6 to 8 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 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.

### 656. Neurology 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.

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.

### 657. Emergency Medicine Clerkship

(O M 655.) 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.

A clerkship organized to develop skills in the acute evaluation and management of patients in the hospital emergency room and other locations.