

## Integrative Studies in Physical Science—ISP

**209 The Mystery of the Physical World**  
Fall, Spring, Summer. 3(3-0) P:M: (MTH 103 or MTH 110 or MTH 116 or LBS 117 or MTH 106 or concurrently or MTH 124 or concurrently or MTH 132 or concurrently or MTH 201 or concurrently or STT 200 or concurrently or STT 201 or concurrently) or designated score on Mathematics placement test.

Laws of physics through demonstrations and analyses of every day phenomena. Optics, mechanical systems and electromagnetic phenomena.

**209L The Mystery of the Physical World Laboratory**  
Fall, Spring, Summer. 2(1-2) P:M: (ISP 209 or concurrently)

Physical phenomena: optics, mechanical systems and electromagnetics.

**213H Navigating the Universe**  
Fall. 3(3-0) Interdepartmental with Physics. P:M: (MTH 103 or MTH 110 or MTH 116 or MTH 106 or MTH 124 or MTH 132 or MTH 201 or LBS 117 or STT 200 or STT 201) or designated score on Mathematics placement test. RB: High school physics, high school algebra, and high school trigonometry

Aspects of classical physics, relativity, quantum mechanics, and standard models of elementary particle physics and cosmology. How notions of reality and standards for forming acceptable knowledge claims have changed.

**215 The Science of Sound**  
Fall, Spring. 3(3-0) P:M: (MTH 103 or MTH 110 or MTH 116 or LBS 117 or MTH 106 or concurrently or MTH 124 or concurrently or MTH 132 or concurrently or MTH 201 or concurrently or STT 200 or concurrently or STT 201) or designated score on Mathematics placement test.

The science of speech, communication, musical instruments, room acoustics, and analogue and digital audio. Integrating the physical, physiological, and psychological principles involved.

## INTEGRATIVE STUDIES IN SOCIAL, BEHAVIORAL AND ECONOMIC SCIENCES

ISS

### Center for Integrative Studies in Social Science College of Social Science

**210 Society and the Individual (D)**  
Fall, Spring, Summer. 4(4-0)  
Evolution of human behavior with an emphasis on the individual and society. Family and kinship, social organizations. Societal types, personality, and the life cycle.

**215 Social Differentiation and Inequality (D)**  
Fall, Spring, Summer. 4(4-0)  
Types, causes and consequences of stratification in human societies. Age, class, gender, race and other factors which define social position. Education, occupation, political economy.

**220 Time, Space and Change in Human Society (D)**  
Fall, Spring, Summer. 4(4-0)  
Evolutionary, ecological, and spatial theories of adaptation and change. Cultural evolution from prehistoric foraging to the post-industrial age. Continuity and change in the emergence and development of contemporary ways of life.

**225 Power, Authority, and Exchange (D)**  
Fall, Spring, Summer. 4(4-0)  
Power, authority, and exchange in organizing societies. Costs and limitations of power. Institutionalization of authority. Systems of exchange: planned vs. market economies.

**310 People and Environment (I)**  
Fall, Spring, Summer. 4(4-0) P:M: (ISS 210 or ISS 215 or ISS 220 or ISS 225)  
Contemporary issues related to the interaction of socio-cultural and ecological systems. Global, regional, national and local environmental problems and responses.

**315 Global Diversity and Interdependence (I)**  
Fall, Spring, Summer. 4(4-0) P:M: (ISS 210 or ISS 215 or ISS 220 or ISS 225)  
Contemporary issues in global political economy. Social forces and competing ideologies in a world context. Global resource distribution and development strategies. National identities and transnational linkages. First and Third World dichotomies.

**320 World Urban Systems (I)**  
Fall, Spring, Summer. 4(4-0) P:M: (ISS 210 or ISS 215 or ISS 220 or ISS 225)  
Patterns of urbanization in various areas of the world over time. Linkage within and between urban centers. Economic, political and social/behavioral accommodation and adaptation to urban growth and change.

**325 War and Revolution (I)**  
Fall, Spring, Summer. 4(4-0) P:M: (ISS 210 or ISS 215 or ISS 220 or ISS 225)  
Social conflict, wars and revolutions. Patterns of individual and collective action. Violence and conflict resolution.

**330A Africa: Social Science Perspectives (I)**  
Fall, Spring, Summer. 4(4-0) P:M: (ISS 210 or ISS 215 or ISS 220 or ISS 225)  
Comparative study of geography, cultures, politics, and economies of Africa. Diversity and change.

**330B Asia: Social Science Perspectives (I)**  
Fall, Spring, Summer. 4(4-0) P:M: (ISS 210 or ISS 215 or ISS 220 or ISS 225)  
Comparative study of geography, cultures, politics, and economies of Asia. Diversity and change.

**330C Latin America: Social Science Perspectives (I)**  
Fall, Spring, Summer. 4(4-0) P:M: (ISS 210 or ISS 215 or ISS 220 or ISS 225)  
Comparative study of geography, cultures, politics, and economies of Latin America. Diversity and change.

**335 National Diversity and Change: United States (N)**  
Fall, Spring, Summer. 4(4-0) P:M: (ISS 210 or ISS 215 or ISS 220 or ISS 225) SA: ISS 335A  
Racial, ethnic, class, gender, and other forms of diversity in the United States. Systems of dominant-minority relations and forms of prejudice and discrimination. Scope of and responses to group inequalities.

**336 Canada: Social Science Perspectives (I)**  
Spring. 4(4-0) P:M: (ISS 210 or ISS 215 or ISS 220 or ISS 225) SA: ISS 335B  
Canadian political, economic, and social institutions. Ethnic and other forms of diversity in Canada. North American national comparisons.

## INTERNAL MEDICINE IM

### Department of Internal Medicine College of Osteopathic Medicine

**512 Biostatistics and Epidemiology**  
Summer. 2(2-0) R: Open only to graduate or graduate-professional students in the Colleges of Osteopathic Medicine, Human Medicine, and Nursing or approval of department. SA: CMS 512, OM 512  
Medical literature to illustrate statistical reasoning and research design. Emphasis on analysis rather than computation. Prospective or retrospective studies. Sensitivity, specificity, and predictive values. Epidemiologic terminology.

**590 Special Problems in Internal Medicine**  
Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 48 credits in all enrollments for this course. R: Open only to graduate-professional students in the College of Osteopathic Medicine. Approval of department.  
Students work under faculty direction on an experimental, theoretical, or applied problem.

**602 Primary Care Ambulatory Clerkship**  
Fall, Spring, Summer. 1 to 36 credits. A student may earn a maximum of 36 credits in all enrollments for this course. Interdepartmental with Osteopathic Medicine; Osteopathic Surgical Specialties; Pediatrics; Psychiatry; Family and Community Medicine. Administered by Department of Osteopathic Medicine. RB: Successful completion of the preclerkship requirements in College of Osteopathic Medicine Units I and II.  
A 24-week ambulatory care continuity experience involving 12 weeks in a multidisciplinary environment (family medicine, pediatrics, and internal medicine), 4 weeks in family medicine and 8 weeks in specialty areas (internal medicine, surgery, pediatrics, and obstetrics and gynecology). Didactic sessions are scheduled concurrently.

**618 Clinical Tropical Medicine**  
Fall. 2(2-0) SA: CMS 618  
Selected topics such as African AIDS, malaria, onchocerciasis, tuberculosis, and schistosomiasis. Pathophysiology, treatments, epidemiology, current research, and controversies.

**620 Directed Studies**  
Fall, Spring, Summer. 1 to 30 credits. A student may earn a maximum of 48 credits in all enrollments for this course. R: Open only to graduate-professional students in the College of Osteopathic Medicine upon completion of Units I and II.  
Individual or group work on special problems in medicine related to internal medicine.

**621 Clinical Tropical Medicine Clerkship**  
 Spring, 1 to 20 credits. Given in Malawi, Central Africa. A student may earn a maximum of 20 credits in all enrollments for this course. RB: (IM 618) R: Open only to graduate-professional students in the colleges of Osteopathic and Human Medicine in final year. SA: CMS 621  
 Supervised clinical experiences in a large African teaching hospital and its outpatient clinics; students must spend at least six weeks on site. Small group discussions led by MSU faculty.

**650 Medicine Clerkship**  
 Fall, Spring, Summer. 1 to 20 credits. A student may earn a maximum of 20 credits in all enrollments for this course. R: Open only to graduate-professional students in the College of Osteopathic Medicine upon completion of Units I and II.  
 Clinical exposure in osteopathic medicine. Program developed to achieve proficiency in motor skills and aptitudes; comprehension of concepts and principles; patient evaluation; diagnosis; management; therapy.

**651 Cardiology Clerkship**  
 Fall, Spring, Summer. 1 to 20 credits. A student may earn a maximum of 30 credits in all enrollments for this course. R: Open only to graduate-professional students in the College of Osteopathic Medicine upon completion of Units I and II.  
 Intensive experience in bedside diagnosis and care of patients with the more frequently seen cardiac problems.

**652 Gastroenterology Clerkship**  
 Fall, Spring, Summer. 1 to 20 credits. A student may earn a maximum of 30 credits in all enrollments for this course. R: Open only to graduate-professional students in the College of Osteopathic Medicine upon completion of Units I and II.  
 Inpatient and outpatient clinical gastroenterology. GI diseases. Patient evaluation and management. Behavioral science and patient care.

**653 Oncology and Hematology Clerkship**  
 Fall, Spring, Summer. 1 to 20 credits. A student may earn a maximum of 30 credits in all enrollments for this course. R: Open only to graduate-professional students in the College of Osteopathic Medicine upon completion of Units I and II.  
 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, Spring, Summer. 1 to 20 credits. A student may earn a maximum of 30 credits in all enrollments for this course. R: Open only to graduate-professional students in the College of Osteopathic Medicine upon completion of Units I and II.  
 Evaluation and treatment of patients with common pulmonary diseases including acute and chronic respiratory failure, primary and metastatic lung tumors, various bacterial and non-bacterial pneumonias.

**655 Nephrology Clerkship**  
 Fall, Spring, Summer. 1 to 20 credits. A student may earn a maximum of 30 credits in all enrollments for this course. R: Open only to graduate-professional students in the College of Osteopathic Medicine upon completion of Units I and II.  
 Clinic and hospital based experience to develop basic skills in evaluation and management of patients with renal disease. Integration of renal physiology and pathophysiology.

**657 Emergency Medicine Clerkship**  
 Fall, Spring, Summer. 1 to 20 credits. A student may earn a maximum of 30 credits in all enrollments for this course. R: Open only to graduate-professional students in the College of Osteopathic Medicine upon completion of Units I and II.  
 Acute evaluation and management of patients in the hospital emergency room and other locations.

## ITALIAN

### Department of Romance and Classical Languages College of Arts and Letters

**101 Elementary Italian I**  
 Fall, Spring. 4(4-1) RB: No previous experience in Italian or approval of department.

Practice in using and understanding Italian to develop listening, speaking, reading, and writing skills. Pronunciation, grammar, vocabulary, and cultural topics.

**102 Elementary Italian II**  
 Fall, Spring. 4(4-1) P:M: (ITL 101)  
 Further practice in using and understanding Italian to develop listening, speaking, reading, and writing skills. Pronunciation, grammar, vocabulary, and cultural topics.

**201 Second-Year Italian I**  
 Fall. 4(4-0) P:M: (ITL 102)  
 Intermediate-level review and development of aural comprehension, speaking, reading, and writing skills. Topics in Italian culture.

**202 Second-Year Italian II**  
 Spring. 4(4-0) P:M: (ITL 201)  
 Further review and development of aural comprehension, speaking, reading, and writing skills. Topics in Italian culture.

**290 Independent Study**  
 Fall, Spring. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course. R: Approval of department.  
 Special projects arranged by an individual student and a faculty member in areas supplementing regular course offerings.

**320 Advanced Grammar and Composition**  
 Fall. 3(3-0) P:M: (ITL 202)  
 Composition in a variety of styles and modes. Review of grammar. Extensive practice in writing.

## ITL

**330 Italian Culture and Civilization**  
 Spring, Summer. 3(3-0) Summer: Given in Florence, Italy. A student may earn a maximum of 6 credits in all enrollments for this course. P:M: (ITL 202)

Diverse aspects of political, social, economic, intellectual, artistic, and literary life of Italy. Class discussion in Italian of readings, films, television programs, and musical selections.

**350 Introduction to Italian Literature**  
 Fall. 3(3-0) P:M: (ITL 330)  
 Italian literature from its origins to the present. Reading and discussion in Italian of representative works from all genres.

**355 Italian Literature in English Translation**  
 Spring of even years. 3(3-0) R: Not open to freshmen.  
 Representative works and themes of Italian literature.

**360 Topics in the Italian Language and Culture**  
 Summer. 3(3-0) Summer: Given in Florence, Italy. A student may earn a maximum of 6 credits in all enrollments for this course. P:M: (ITL 330)  
 Aspects of Italian culture or language as manifested in art, literature, music, and film.

**490 Independent Study**  
 Fall, Spring. 1 to 4 credits. A student may earn a maximum of 9 credits in all enrollments for this course. R: Not open to freshmen or sophomores. Approval of department.  
 Special projects arranged by an individual student and a faculty member in areas supplementing regular course offerings.

## JAMES MADISON COLLEGE MC

### James Madison College

**111 Identity and Community: An Approach to Writing I**  
 Fall. 3(3-0) R: Open only to students in James Madison College.  
 Identity and community in American and cross-cultural contexts. Influences of family, education, work, religion, gender, race, class and/or sexuality on identity and community. Focuses on critical reading and analytical writing.

**112 Identity and Community: An Approach to Writing II**  
 Spring, Summer. 3(3-0) P:M: (MC 111) RB: or approval of college. R: Open only to students in James Madison College.  
 Identity and community in American and cross-cultural contexts in selected historical eras. Reconstructing images of self and society in time of stress or transition. Emphasis on history, narrative, literature, film, art, politics. Principles of research, documentation, persuasive writing and speaking.

**201 Introduction to the Study of Public Affairs I (D)**  
 Fall. 4(4-0) R: Open only to students in James Madison College  
 Interdisciplinary exploration of enduring issues and conflicts in American and international public affairs. Historical, social science, and comparative approaches.