

**205. Visions of the Universe**  
Fall, Spring, Summer. 3(3-0)  
P: MTH 104 or MTH 110 or MTH 116 or MTH 120 or MTH 124 or MTH 201 or STT 200 or STT 201 or concurrently or designated score on mathematics placement test.

Role of observation, theory, philosophy, and technology in the development of the modern conception of the universe. The Copernican Revolution. Birth and death of stars. Spaceship Earth. Cosmology and time.

**205L. Visions of the Universe Laboratory**  
Fall, Spring, Summer. 1(0-2)

C: ISP 205.  
Observations of the sky, laboratory experiments, and computer simulations exploring the development of the modern conception of the universe.

**207. World of Chemistry**  
Fall, Spring, Summer. 3(3-0)

P: MTH 110 or MTH 116 or MTH 120 or MTH 124 or MTH 201 or STT 200 or STT 201 or concurrently or designated score on mathematics placement test.

The language, concepts, models and techniques of chemical science, including atomic theory; nuclear energy; acids; chemicals in air, water, food and biological systems.

**207L. World of Chemistry Laboratory**  
Fall, Spring, Summer. 1(0-2)

C: ISP 207.  
Chemical combinations and reactivity with respect to such materials as acids, bases, dyes, foods, and detergents.

**209. The Mystery of the Physical World**  
Fall, Spring, Summer. 3(3-0)

P: MTH 110 or MTH 116 or MTH 120 or MTH 124 or MTH 201 or STT 200 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. 1(0-2)

C: ISP 209.  
Physical phenomena: optics, mechanical systems and electromagnetics.

**211. The Structure of Matter**  
Fall, Spring, Summer. 3(3-0)

P: MTH 110 or MTH 116 or MTH 120 or MTH 124 or MTH 201 or STT 200 or STT 201 or concurrently or designated score on mathematics placement test.

Historical and recent development of knowledge about and models of the fundamental structures of all matter. Physical laws governing the structure of matter.

## INTEGRATIVE STUDIES IN SOCIAL, BEHAVIORAL and ECONOMIC SCIENCES ISS

### 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: One 200-level ISS course.  
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: One 200-level ISS course.  
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: One 200-level ISS course.  
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: One 200-level ISS course.  
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: One 200-level ISS course.  
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: One 200-level ISS course.  
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: One 200-level ISS course.  
Comparative study of geography, cultures, politics, and economies of Latin America. Diversity and change.

**335A. National Diversity and Change: United States (N)**

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

P: One 200-level ISS course.  
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.

**335B. National Diversity and Change: Canada (D)**

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

P: One 200-level ISS course.  
Racial, ethnic and other forms of diversity in Canada. French-English schism. Role of non-English/non-French ethnic groups. Policies of multiculturalism.

## INTERNAL MEDICINE IM

### Department of Internal Medicine College of Osteopathic Medicine

**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.

**618. Clinical Tropical Medicine**  
Fall. 2(2-0)

R: Approval of department.  
Selected topics such as African AIDS, malaria, onchocerciasis, tuberculosis, and schistosomiasis. Pathophysiology, treatments, epidemiology, current research, and controversies.  
SA: CMS 618

**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. A student may earn a maximum of 20 credits in all enrollments for this course.

P: IM 618. R: Open only to graduate-professional students in the colleges of Osteopathic and Human Medicine in final year.

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.  
SA: CMS 621

**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.

**Descriptions — Internal Medicine  
of  
Courses**

- 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.
- 656. Neurology 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.  
Clinical exposure in 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**  
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)  
P: 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: ITL 101 or approval of department.  
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: ITL 102 or approval of department.  
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: 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: ITL 202.  
Composition in a variety of styles and modes. Review of grammar. Extensive practice in writing.
- 330. Italian Culture and Civilization**  
Spring. 3(3-0)  
P: 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.
- 340. Phonetics and History of the Italian Language**  
Spring of odd-numbered years. 3(3-0)  
P: ITL 330.  
Phonetic description of the sound system to improve pronunciation and spoken Italian. Historical, linguistic, and cultural issues which influenced the development of modern Italian.
- 350. Introduction to Italian Literature**  
Fall. 3(3-0)  
P: 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-numbered years. 3(3-0)  
R: Not open to freshmen.  
Representative works and themes of Italian literature.

**ITL**

- 360. Topics in the Italian Language and Culture**  
Fall of even-numbered years. 3(3-0)  
P: ITL 330.  
Aspects of Italian culture or language as manifested through media such as art, literature, music, and film.
- 450. Italian Literature of the Origins**  
Fall of odd-numbered years. 3(3-0)  
P: ITL 350.  
Italian literature from the thirteenth and fourteenth centuries. Authors include Dante, Boccaccio, and Petrarch.
- 455. Italian Literature of the Renaissance**  
Spring of even-numbered years. 3(3-0)  
P: ITL 350.  
Literary trends in fifteenth-and sixteenth-century Italy, with special focus on the Reformation, Humanism, and Neo-Platonism.
- 465. Italian Literature of the 18th and 19th Centuries**  
Spring of odd-numbered years. 3(3-0)  
P: ITL 350.  
Literary trends in Italy during the enlightenment and Romantic periods.
- 470. Italian Literature of the 20th Century**  
Fall of even-numbered years. 3(3-0)  
P: ITL 350.  
Literary trends in twentieth-century Italy. Authors include Pirandello, D'Annunzio, and Eco.
- 490. Independent Study**  
Fall, Spring. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course.  
R: Not open to freshmen and 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**

- 111. The Individual in American Society: An Approach to Writing I**  
Fall. 3(3-0)  
R: Open only to James Madison College freshmen and sophomores.  
Identity and community in American society. Life cycle of Americans. The influence of family, education, work, religion, class, race, and gender. Critical reading and analytical writing.
- 112. The Individual in American Society: An Approach to Writing II**  
Spring, Summer. 3(3-0)  
P: MC 111. R: Open only to James Madison College freshmen and sophomores.  
Individuality and community in a selected historical era. Reconstructing images of self and society in time of stress or transition. Emphasis on history, literature, art, politics. Principles of research; persuasive writing and speaking.
- 201. Introduction to the Study of Public Affairs I**  
Fall. 4(4-0)  
R: Open only to James Madison College freshmen and sophomores.  
Interdisciplinary exploration of enduring issues and conflicts in American and international public affairs. Historical, social science and comparative approaches.