205. Visions of the Universe Laboratory
Fall, Spring, Summer. 1(0-2) C: ISP 205 concurrently.
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.

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 everyday phenomena. Optics, mechanical systems and electromagnetic phenomena.

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. The Science of Sound
Fall, Spring, Summer. 3(3-0) P: MTH 104 or concurrently or MTH 110 or concurrently or MTH 116 or concurrently or MTH 120 or concurrently or MTH 124 or concurrently or MTH 201 or concurrently or STT 200 or concurrently or STT 201 or concurrently) Designated score on Mathematics placement test. Not open to students with credit in TCC 321.
The science behind sound. Speech, communication, musical instruments, room acoustics, and analogue and digital audio. Integrating the physical, physiological, and psychological principles involved.

320. World Urban Systems (I)
Fall, Spring, Summer. 4(4-0) P: (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.
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 Osteopathic Medicine. P: 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), 6 weeks in family medicine and 6 weeks in specialty areas (internal medicine, surgery, and obstetrics and gynecology). Didactic sessions are scheduled concurrently.

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 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. 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 nonbacterial 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—Descriptions of Courses

101. Elementary Italian I
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.

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 years. 3(3-0) R: Not open to freshmen. Representative works and themes of Italian literature.

360. Topics in the Italian Language and Culture
Fall of even years. 3(3-0) P: ITL 330. Aspects of Italian culture or language as manifested through media such as art, literature, music, and film.

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.