#### Courses

#### 580. Nursing Clinician Practicum I Winter. 5(3-6) NE 564, NE 540, ap-

Winter, 5(3-6) N.E. 564, N.E. 540, proval of school.

Beginning skill development in physical assessment, interviewing, history taking and health assessment of adult and child. Limited clinical experience with selected patients.

#### 581. Nursing Clinician Practicum II Spring. 5(2-9) NE 580, approval of school.

Nursing management of clients in primary care. Health maintenance and health promotion. Single acute problems. Continuity of care. Longitudinal study of a family.

### 582. Nursing Clinician Practicum III Summer. 5(2-9) N E 581, approval of

school.

Management skills for clients in diminishedunstable and compensated-decompensated health states in primary care. Longitudinal study of a family.

## 583. Nursing Clinician Practicum IV

Fall. 5(2-9) NE 582, approval of school.

Management skills for clients in depleteddecompensated and depleted-compensated health states in primary care. Longitudinal study of a family.

## 590. Special Problems

Fall, Winter, Spring, Summer. 1 to 6 credits. May reenroll for a maximum of 12 credits. Approval of instructor.

Individual or group in-depth study of specific areas in nursing. Independent study.

## 595. Selected Topics

Fall, Winter, Spring. 2 to 6 credits. May reenroll for a maximum of 6 credits if different topics are selected. Approval of instructor.

Selected issues, trends, programs or theories in nursing.

## 899. Master's Thesis Research

(599.) Fall, Winter, Spring, Summer. 1 to 6 credits. May reenroll for a maximum of 15 credits. N E 570, approval of instructor.

Clinical problem related to primary health care.

## OBSTETRICS, GYNECOLOGY AND REPRODUCTIVE BIOLOGY OGR

## College of Human Medicine

## 533. Introduction to Obstetrics and Gynecology

Winter. 1(1-0) Admission to a college of medicine or approval of department; H M 514 concurrently.

Normal physiology and endocrinology of menstrual cycle, conception, pregnancy, and labor. Diagnosis of high risk pregnancy.

#### 608. Obstetrics/Gynecology Clerkship

Fall, Winter, Spring, Summer. 1 to 17 credits. May reenroll for a maximum of 43 credits. H M 602.

Experience with gynecologic and obstetrical patients, in in-patient and out-patient settings, under the direction of community practitioners and members of the MSU faculty.

#### 609. Obstetrics and Gynecology Advanced Clerkship

Fall, Winter, Spring, Summer. 4 to 16 credits. May reenroll for a maximum of 16 credits. OGR 608, approval of department and approval of community coordinator.

Advanced clinical experience in gynecology and/or obstetrics.

### 610. Gynecology Ambulatory Clinic

Fall, Winter, Spring, Summer. 4 to 16 credits. May reenroll for a maximum of 16 credits. H M 602.

Contraception, management of abnormal Papsmear, pregnancy and abortion counseling, and general office gynecology.

#### 611. Case Studies in Obstetrics and Gynecology

Fall, Winter, Spring, Summer. 8 to 16 credits. May reenroll for a maximum of 16 credits. H M 602.

The student will design, pretest and field test a simulation of a clinical problem in obstetrics and gynecology.

## OSTEOPATHIC MEDICINE O M

## College of Osteopathic Medicine

#### 530. Clinical Science I

Fall. 2(1-3) Admission to a college of medicine.

Fundamental concepts and skills essential to the performance of a clinical history and physical examination.

## 531. Clinical Science II Fall. 2(2-0)

Techniques, concepts and skills required for competent history taking and physical examination utilizing lectures, laboratory and films for instructional purposes.

#### 532. Clinical Science III

Winter. 1(0-3) Admission to a college of medicine.

A clinical study program providing an opportunity to learn the skills of history taking and physical examination by actual performance of the involved techniques on patients under physician supervision.

## 533. Clinical Science IV

Spring. 1(0-3) Admission to a college of medicine or approval of department.

Continuation of O M 532.

#### 534. Clinical Science V

Summer. I(0-3) Admission to a college of medicine.

A clinic-based program providing additional emphasis on history taking and physical examination as well as developing fundamental abilities in diagnosis and problem solving in the clinic setting.

#### 535. Clinical Science VI

Fall. 1(0--3) Admission to a college of medicine.

A continuation of O M 534.

### 536. Clinical Science VII

Winter. 1(0-3) Admission to a college of medicine.

Continuation of O M 535,

#### 537. Clinical Science VIII

Spring, 1(0--3) Admission to a college of medicine.

Continuation of O M 536.

## 590. Special Problems in Osteopathic Medicine

Fall, Winter, Spring, Summer. 1 to 8 credits. May reenroll for a maximum of 32 credits. Approval of department.

Each student will work under direction of a faculty member on an experimental, theoretical or applied problem.

#### 600. Clinical Science Practicum

Fall, Winter, Spring, Summer. 2 to 12 credits. May reenroll for a maximum of 60 credits. Grade P in all courses offered in terms 1 through 8 or approval of department.

A clinic oriented course covering the major areas of medical practice including involvement in Family Practice and Community Health Services

### 620. Directed Studies

Fall, Winter, Spring, Summer. 2 to 24 credits. May reenroll for a maximum of 48 credits. Admission to a college of medicine or approval of department.

Individual or group work on special problems in medicine.

#### 650. Medicine Clerkship

Fall, Winter, Spring, Summer. 2 to 24credits. May reenroll for a maximum of 24 credits. Grade P in all courses offered in terms 1 through 8 or approval of department.

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. Obstetrics--Gynecology Clerkship

Fall, Winter, Spring, Summer. 12 credits. Grade P in all courses offered in terms 1 through 8 or approval of department.

Clinical exposure in obstetrics and gynecology. Program developed to achieve efficiency in obstetrical patient evaluation, management; motor skills, aptitudes; care of new born; evaluation of postpartum patient; management of gynecologic problems.

#### 653. Surgery/Anesthesiology Clerkship

Fall, Winter, Spring, Summer. 8 credits. Grade P in all courses offered in terms 1 through 8 or approval of department.

Clinical exposure in area of surgical diagnosis, management, treatment. Program structure developed to achieve proficiency in motor skills, aptitudes; comprehension of concepts and principles; patient evaluation, diagnosis, management, and therapy.

## 654. Anesthesiology Clerkship

Fall, Winter, Spring, Summer. 4 credits. Grade P in all courses offered in terms 1 through 8 or approval of department.

Clinical exposure in area of anesthesiology. Program structure developed to achieve proficiency in motor skills, aptitudes; comprehension of concepts and principles; patient evaluation, diagnosis, management, and therapy.

#### 655. Emergency Medicine Clerkship

Fall, Winter, Spring, Summer. 4 credits. Grade P in all courses offered in terms 1 through 8 or approval of department.

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

#### 656. Orthopedics Clerkship

Fall, Winter, Spring, Summer. 4 credits. Grade P in all courses offered in terms 1 through 8 or approval of department.

Clinical exposure in area of orthopedics. Program structure developed to achieve proficiency in motor skill, aptitudes; comprehension of concepts and principles; patient evaluation, diagnosis, management, and therapy.

## 657. Neurology Clerkship

Fall, Winter, Spring, Summer. 4 credits. Grade P in all courses offered in terms 1 through 8 or approval of department.

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.

#### 658. Otorhinolaryngology Clerkship

Fall, Winter, Spring, Summer. 4 credits. Grade P in all courses offered in terms I through 8 or approval of department.

Clinical exposure in area of otorhinolaryngology. Program structure developed to achieve proficiency in motor skills, aptitudes; comprehension of concepts and principles; patient evaluation, diagnosis, management, and therapy.

# OSTEOPATHIC MEDICINE OST (COLLEGE OF)

#### 500. Historical and Biological Foundations of Osteopathic Medicine

Summer. 2(3-0) Admission to a professional medical program.

Historical development of the osteopathic profession. Integration of biological and osteopathic principles in the consideration of health and disease.

## 520. Normal Endocrine Structure and Function

Spring. 3(2-2) PSL 500A, BCH 502 or approval of department.

An integrated basic science course presenting a series of lectures and laboratories related to the normal structure and function of the endocrine organs. Prerequisite for studying endocrine diseases in systems biology.

#### 530. Comprehensive Patient Evaluation I

Summer, 2 to 6 credits. Admission to a college of medicine.

Interdepartmental course in physical examination skills. Stresses comprehensive, osteopathic evaluation of the patient.

#### 531. Comprehensive Patient Evaluation II

Fall. 2 to 6 credits. OST 530.

Continuation of OST 530.

## 532. Comprehensive Patient Evaluation III

Winter. 2 to 6 credits. OST 531.

Interdepartmental course in physical examination skills. Stresses application of comprehensive, osteopathic evaluation of the patient. Introduction to office procedures and physical diagnosis.

#### 533. Comprehensive Patient Evaluation IV

Spring. 2 to 6 credits. OST 532.

Interdepartmental course in physical examination skills. Stresses comprehensive, osteopathic evaluation of the patient. Includes preceptorship and appropriate systems biology clinical experiences.

#### 534. Comprehensive Patient Evaluation and Management I Summer, 2 to 6 credits, OST 533.

Interdepartmental course in physical examination skills, diagnosis and patient management. Stresses comprehensive, osteopathic evaluation and management of the patient. Includes preceptor assignment and appropriate systems biology clinical experiences.

#### 535. Comprehensive Patient Evaluation and Management II Fall. 2 to 6 credits. OST 533.

Continuation of OST 534.

#### 536. Comprehensive Patient Evaluation and Management III Winter, 2 to 6 credits, OST 533.

Continuation of OST 535.

## 537. Comprehensive Patient Evaluation and Management IV

Spring. 2 to 6 credits. OST 533. Continuation of OST 536.

#### 551. Systems Biology I

(O M 550.) Fall. 3 to 12 credits. ANT 560, BCH 501.

A multidisciplinary approach to the hematopoietic systems providing a functional integration of basic science and clinical information.

### 552. Systems Biology II

Spring. 3 to 6 credits. ANT 560, ANT 565, PSL 500A, MPH 521, BCH 502, PHM 521B, PTH 502.

A multidisciplinary approach to the integumentary system providing a functional integration of basic science and clinical information.

### 553. Systems Biology III

(O M 551.) Spring. 5 to 15 credits. ANT 563, PSL 500A, PTH 502, BCH 502, PHM 520B, MPH 521.

A multidisciplinary approach to the nervous system providing a functional integration of basic science and clinical information.

#### 554. Systems Biology IV

(O M 552.) Fall. 5 to 15 credits. ANT 560, ANT 565, PSL 500A, MPH 521, BCH 502, PHM 521B, PTH 502.

Continuation of OST 553 with emphasis on multidisciplinary approach to the cardiovascular system.

#### 555. Systems Biology V

(O M 553.)Winter. 5 to 10 credits. ANT 560, ANT 565, PSL 500A, MPH 521, BCH 502, PHM 521B, PTH 502.

Continuation of OST 554 with emphasis on multidisciplinary approach to the respiratory system.

#### 556. Systems Biology VI

(O M 553.) Winter. 5 to 10 credits. ANT 560, ANT 565, PSL 500A, MPH 521, BCH 502, PHM 521B, PTH 502.

Continuation of OST 555. This system will represent a multidisciplinary approach to the urinary system.

## 557. Systems Biology VII

(O M 554.) Spring. 5 to 15 credits. ANT 560, ANT 565, PSL 500A, MPH 521, BCH 502, PHM 521B, PTH 502.

Continuation of OST 556 with emphasis on multidisciplinary approach to the gastrointestinal system and metabolism.

#### 558. Systems Biology VIII

(O M 555.) Summer. 5 to 15 credits. ANT 560, ANT 565, PSL 500A, MPH 521, BCH 502, PHM 521B, PTH 502.

Continuation of OST 557 with emphasis on multidisciplinary approach of the growth and development within (but not limited to) the field of pediatrics, obstetrics and gynecology.

#### 590. Special Problems

Fall, Winter, Spring, Summer. 1 to 8 credits. May reenroll for a maximum of 32 credits. Approval of department.

Each student will work under direction of a faculty member on an experimental, theoretical or applied problem.

#### 610. The Osteopathic Examination I

(F M 630.) Fall. 1(0-4) Admission to a college of medicine or approval of instructor. Instruction in the osteopathic examination.

## 611. The Osteopathic Examination II

(F M 640.) Winter. 1(0-4) OST 610 or approval of instructor.

Continuation of OST 610.

## 612. The Osteopathic Examination

(F M 650.) Spring. 1(0-4) OST 611 or approval of instructor.

Continuation of OST 611.

#### 613. The Osteopathic Examination IV (F M 660.) Summer. I(0-4) OST 612 or approval of instructor.

Continuation of OST 612.

#### 614. The Osteopathic Examination V (F M 670.) Winter. I(0-4) OST 612 or

approval of instructor.

Continuation of OST 613.

### 615. The Osteopathic Examination VI (F M 680.) Winter. 1(0-4) OST 612 or

approval of instructor.

#### Continuation of OST 614.

## 616. The Osteopathic Examination VII

(F M 690.) Fall, Winter, Spring, Summer. 1(0-4) OST 613, OST 614, OST 615 or approval of instructor.

Continuation of OST 615.

## 620. Systems Biology--Directed Studies

Fall, Winter, Spring, Summer. 1 to 15 credits. Admission to a professional medical program or approval of coordinator.

A directed study in systems biology for the continuing advanced student or remediation of any systems biology: hemopoietic, integumentary, nervous, cardiovascular, respiratory, urinary, gastrointestinal, growth and development.