

promotion and nursing care to the sick in their homes. Roles, responsibilities and functions of the nurse in the community are stressed.

**404. Survey of Nursing**  
Fall, Winter, Spring. 4 credits. Seniors.

Development of nursing to present status, current problems and long-term goals. Fields of service open to graduate nurses; nursing organizations, national, state and local, their services and objectives.

**406. Senior Nursing**  
Fall, Winter, Spring. 8(3-20) Senior majors.

A study of basic principles of leadership and their application in the practice of team nursing.

**OSTEOPATHIC MEDICINE\* O M**

**College of Osteopathic Medicine**

**501. Medical Biology I**  
Fall. 4(4-0)

Integrated aspects of biology providing a foundation and vocabulary preparatory to studies in osteopathic medicine.

**502. Medical Biology II**  
Winter. 7(6-3)

Continuation of 501 emphasizing pathology and pharmacology.

**530. Clinical Science I**  
Fall. 1(1-0)

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

**531. Clinical Science II**  
Winter. 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**  
Spring. 4(4-0)

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**  
Summer. 4(4-0)

Continuation of 532.

**534. Clinical Science V**  
Fall. 4(4-0)

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**  
Winter. 4(4-0)

A continuation of 534.

**536. Clinical Science VII**  
Spring. 4(4-0)

Continuation of 535.

**537. Clinical Science VIII**  
Summer. 4(4-0)

Continuation of 536.

**550. Systems Biology I**  
Spring. 7(5-6) 502.

A multidisciplinary approach to the hemato-poetic and nervous systems providing a functional integration of basic science and clinical information.

**551. Systems Biology II**  
Summer. 6(5-3)

Continuation of 550 with emphasis on a multi-disciplinary approach to the nervous system.

**552. Systems Biology III**  
Fall. 11(8-9)

Continuation of 551 with emphasis on multi-disciplinary approach to the cardiovascular system.

**553. Systems Biology IV**  
Winter. 11(8-8)

Continuation of 552 with emphasis on multi-disciplinary approach to the respiratory, renal and urinary systems.

**554. Systems Biology V**  
Spring. 11(9-5)

Continuation of 553 with emphasis on multi-disciplinary approach to the gastrointestinal system.

**555. Systems Biology VI**  
Summer. 11(9-6)

Continuation of 554 with emphasis on multi-disciplinary approach to the study of pediatrics, obstetrics and gynecology.

**600. Clinical Science Practicum**  
Fall, Winter, Spring, Summer. 15 credits. May re-enroll for a maximum of 60 credits.

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. 1 to 6 credits. May re-enroll for a maximum of 24 credits. Approval of department.

Individual or group work on special problems in medicine.

**OBSTETRICS, GYNECOLOGY  
AND REPRODUCTIVE  
BIOLOGY\* OGR**

**College of Human Medicine**

**608. Obstetrics/Gynecology Clerkship**  
Fall, Winter, Spring, Summer. 1 to 17 credits. May re-enroll 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.

\*Established July 1, 1971.

**PACKAGING PKG**

**College of Agriculture and  
Natural Resources**

**210. Principles of Packaging**  
Fall, Winter, Spring, Summer. 3(3-0)

A general course in packaging principles covering the growth and development of the field, and the technological and motivational problems involved in present day packaging. Consideration will be given to the basic functions of the package and their relation to the needs and wants of our society.

**320. Packaging Materials**  
Fall, Winter, Spring. 5(4-4) CEM 132.

Detailed study of common packaging materials such as wood, paper, paperboards, plastics, metal foils and sheets, glass, and cushioning media. A one-day field trip required.

**330. Graphics for the Packaging Industry**  
Winter. 4(3-3) 320 or approval of school.

Designing graphics for specific types of printing processes and for various packaging materials. Considerations in ink formulation, identification of the various printing processes used, and the advantages and disadvantages of various reproduction methods as used for packaging.

**422. Packaging Systems**  
Fall, Winter, Spring. 5(4-4) 320 or approval of school.

Design, use and evaluation of packages and packaging systems. A one-day field trip is required.

**423. Dynamics of Packaging**  
Winter, Spring. 5(4-3) 422, MTH 215, or approval of department.

A study of the protective function of the packaging systems in relation to their environment and shock and vibration isolation methods. A one-day field trip is required.

**424. Packaging Problems**  
Fall, Winter, Spring, Summer. 1 to 3 credits. May re-enroll for a maximum of 9 credits. 422, 2.5 grade-point average and approval of school.

Development of solutions to specific packaging problems.

**425. Packaging Process Analysis**  
Fall, Winter, Spring. 4(3-3) 422; CPS 110.

The integrated study of the operation structure and control of the packaging and package-making process. A one-day field trip is required.

**428. Packaging Development**  
Fall, Spring. 4(3-2) 320.

A study of the functions of each area concerned with the development of packages to meet present-day requirements of protection and merchandising.

**430. Packaging Machinery**  
Spring. 4(3-3) 320 or approval of school.

The components for automated packaging lines, and auxiliary materials handling equipment, including consideration of design, selection, specification and operation of machinery for the package-making and package-filling operations.