206. Foundations of Nursing Winter. 4(3-3) 205.

Fundamental principles are presented as they relate to the care of the whole person; identification of problems confronting the individual in illness, methods of approach to the patient as a person whereby joint effort may contribute to improved well-being and/or recovery.

207. Foundations of Nursing Spring. 4(2-6) 206.

Continues building on concepts, using principles and knowledge introduced in the foregoing nurs-ing courses. The laboratory now moves into the clinical area where practice in the nursing of patients becomes the focus of application of past learning and study.

Medical and Surgical Nursing 303. Fall, Spring. 12 credits. 207.

Care of individuals receiving medical and surgical therapy with emphasis on integration of preventative, emotional and social aspects of illness, pathological relationships, and all forms of therapy and rehabilitation as they relate to medical and surgical nursing. Instruction and guided practice.

Medical and Surgical Specialties 304. Winter, Summer. 12 credits. 303.

Continuation of 303.

305. Maternity Nursing

Fall, Winter, Spring, Summer. 12 credits. Approval of school.

Nursing through pregnancy, parturition, and puerperium, including care of the new born. Instruction and guided practice.

306. Nursing of Children

Fall, Winter, Spring, Summer. oredits. 207; FCS 262B.

Normal growth and development from infancy through adolescence, care and health super-vision of well children, treatment and rehabilitation of sick and handicapped children. Instruction and guided practice.

400H. Honors Work

Fall, Winter, Spring, Summer. 1 to 12 Approval of school. credits.

402A. Psychiatric Nursing of Individuals (402.) Fall, Winter, Spring. 6 cred-Seniors, 402B concurrently.

Provides opportunities to develop skill in utilizing concepts and principles relevant to creating and maintaining therapeutic interpersonal relationships; individual and group participation with other professionals in providing comprehensive mental health services to the mentally ill individual and his family.

402B. Group Process and Community Action in Psychiatric Nursing

(402.) Fall, Winter, Spring. 6 credits. Seniors. 402A concurrently.

Provides opportunities to develop skill in utilizing concepts, principles and dynamics of group and community interactions relevant to provid-ing nursing intervention in programs for primary, secondary and tertiary prevention in community mental health.

403A. Introduction to Public Health

Fall, Winter, Spring. 4(4-0) Majors or approval of school.

Philosophy, development, organization, and responsibilities of public health are explored in the light of the current economic and political climate. An introduction to vital statistics, epidemiology, and environmental health is included. Provides a frame of reference for practice in this field.

403B. Public Health Nursing

Fall, Winter, Spring. 8(4-16) Seniors. Relationships between public health nursing and other health and welfare services. Guided practice is provided for students working with individuals, families and community resources. Major focus is on health maintenance, health 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. Sen-

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. Nursing Leadership and Management

Fall, Winter, Spring. 8(4-16) Senior

majors. Three areas of emphasis are leadership, management and problem-solving within health care work groups. Clinical experience through-

out the term is continuous within one work group. Clinical laboratory in community hos-pitals and agencies.

490. Special Problems in Nursing

Fall, Winter, Spring, Summer. 1 to 6 credits. May re-enroll for a maximum of 12 credits. Approval of department.

Exploration of certain areas in nursing in greater depth and/or from a different perspective than possible within the limits of required

OBSTETRICS, GYNECOLOGY AND REPRODUCTIVE **BIOLOGY OGR**

College of Human Medicine

Obstetrics/Gynecology Clerkship

Fall, Winter, Spring, Summer. I 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.

OSTEOPATHIC MEDICINE* O M

College of Osteopathic Medicine

Medical Biology I 501.

Fall. 4(4-0)

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

Medical Biology II 502.

Winter. 3 to 8 credits. Admission to a college of medicine.

Continuation of 501 emphasizing pathology and pharmacology.

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 Winter. 2(2-0)

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

Clinical Science III

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

A clinical study program providing an oppor-tunity 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. I(0-3) Admission to a college of medicine.

Continuation of 532.

Clinical Science V 534.

Fall. 1(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

Winter. 1(0-3) Admission to a college of medicine. A continuation of 534.

Clinical Science VII

Spring. 1(0-3) Admission to a college of medicine. Continuation of 535.

Clinical Science VIII 537.

Summer. 1(0-3) Admission to a college of medicine. Continuation of 536.

Clinical Science Practicum 600.

Fall, Winter, Spring, Summer. 15 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.

Directed Studies 620.

Fall, Winter, Spring, Summer. 1 to 6 May re-enroll for a maximum of 24 credits. credits. Approval of department.

Individual or group work on special problems in medicine.

OSTEOPATHIC MEDICINE OST (COLLEGE OF)

Systems Biology I

(O M 550.) Spring. 3 to 12 credits. Admission to a professional medical program.

A multidisciplinary approach to the hemato-poietic systems providing a functional integra-tion of basic science and clinical information.

Established July 1, 1971.

Systems Biology II *552*.

Spring. 3 to 6 credits. Admission to a professional medical program.

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

553. Systems Biology III

(OM 551.) Summer. 5 to 15 credits. Admission to a professional medical program.

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

Systems Biology IV 554.

(O M 552,) Fall. 5 to 15 credits. Admission to a professional medical program.

Continuation of 553 with emphasis on multi-disciplinary approach to the cardiovascular

555. Systems Biology V

(OM 553.) Winter. 5 to 10 credits. Admission to a professional medical program. Continuation of 554 with emphasis on multidisciplinary approach to the respiratory system.

556. Systems Biology VI

(OM 553.) Winter. 5 to 10 credits. Admission to a professional medical program. Continuation of 555. This system will represent a multidisciplinary approach to the urinary system.

557. Systems Biology VII

(OM 554.) Spring. 5 to 15 credits. Admission to a professional medical program. Continuation of 556 with emphasis on multidisciplinary approach to the gastrointestinal system and metabolism.

558. Systems Biology VIII

(OM 555.) Summer. 5 to 15 credits. Admission to a professional medical program. Continuation of 557 with emphasis on multidisciplinary approach of the growth and development within (but not limited to) the field of pediatrics, obstetrics and gynecology.

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.

PACKAGING

PKG

College of Agriculture and Natural Resources

Principles of Packaging 210.

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 in-volved 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, Spring. 3(3-0)

Common packaging materials including wood, paper, paperboard, plastics, metal foils and sheets, glass, adhesives cushioning media; their basic properties in relation to performance of

330. Graphics for the Packaging Industry

Winter. 3(3-0) 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.

340. Packaging and the Environment Winter. 4(4-0)

Broad study of the effects of packaging on environmental quality, including solid waste, air and water quality, laws, economics, energy considerations and resources conservation,

422. Packaging Systems

Fall, Winter. 3(3-0) 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

Spring. 4(3-3) 422, MTH 113, or approval of school.

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 May re-enroll for a maximum of 9 422, 2.5 grade-point average and apcredits. proval of school.

Development of solutions to specific packaging problems.

425. Packaging Process Analysis Winter, Spring. 4(3-3) 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,

427. Packaging Materials and Systems Laboratory

Fall, Winter, Spring. 3(1-6) 320, 422 or approval of department.

Methods of measuring properties of packaging materials. Design, manufacture and performance testing of complete packages. Techniques for evaluating test results. Value of various test methods.

428.Packaging Development

Fall, Spring. 4(3-2) 422 or approval

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) 422 or approval of

school.

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

463. Seminar

Fall. 2(0-4) Must have job experience to enroll.

Detailed report on work performed in practical experience or outside packaging projects.

80I. Package Design

Fall. 4(3-3)

Advanced work in the development of the graphic and structural design of packages.

834. Special Investigations in Packaging

Fall, Winter, Spring, Summer. Variable credit.

899. Research

Fall, Winter, Spring, Summer. Variable credit. Approval of school.

Building Construction

BC

200. Dynamics of American Housing Fall, Winter, Spring, Summer. 3(3-0)

Impact of housing on the economic and social welfare of America. Analysis of the residential building industry and its problems in providing adequate housing.

312. Structural Design

Fall. 4(4-0) 200 or approval of department.

Consideration of structural design systems as used in light construction.

412. Housing Utilities Design

4(4-0)Winter.

Design of and planning for mechanical and electrical utilities in housing.

413. Residential Construction Systems Spring. 4(3-2) 312 or approval of

department. Analysis of the primary construction systems

employed in the residential building industry, especially the economic and social aspects in meeting the housing goals of the U. S.

Building Materials 415.

Spring. 4(4-0) 312 or approval of department.

Properties of building materials pertinent to their application and performance in service.

416. **Building Costs**

Winter. 4(2-4) Approval of depart-

Methods of cost estimating. Effects of codes and production practices on costs.

Residential Finance 417.

Winter. 4(4-0) Juniors.

Analysis of financial programs for the construction, rehabilitation, remodeling and purchase of homes; especially meeting the nation's goals for low to moderate income housing.

418. Special Topics

Fall, Winter, Spring, Summer. 1 to 3 credits. Approval of department.

Selected topics in housing.