205. Foundations of Nursing Fall, Winter. 4/2-3 credits 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.

206. Foundations of Nursing Spring. 4/2-6 credits 206.
Continues building on concepts, using principles and knowledge introduced in the preceding nursing 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.

303. Medical and Surgical Nursing Fall, Spring. 12 credits 303.
Care of individuals receiving medical and surgical therapy with emphasis on integration of preventive, 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.

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

305. Maternity Nursing Fall, Winter, Spring. 12 credits 305.
Appraisal of problems confronting the individual or approval of projects. Nursing through pregnancy, parturition, and puerperium, including care of the new born. Instruction and guided practice.

306. Nursing of Children Fall, Winter, Spring. Summer. 12 credits 306. FCS 252A.
Normal growth and development from infancy through adolescence; care and health supervision 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 credits. Approval of school.

402A. Psychiatric Nursing of Individuals (402A). Fall, Winter, Spring. 6 credits. Seniors. 402B concurrently.
Provides opportunities to develop skill in utilizing concepts, principles and dynamics of group and community interaction relevant to providing nursing intervention in programs for primary, secondary and tertiary prevention in community mental health.

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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 credits 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. 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. Nursing Leadership and Management Fall, Winter, Spring. 8/4-16 credits. Seniors.
Three areas of emphasis are leadership, management and problem-solving within health care work groups. Clinical experience throughout the term is continuous within one work group. Clinical laboratory in community hospitals 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 courses.

OBSTETRICS, GYNECOLOGY AND REPRODUCTIVE BIOLOGY

College of Human Medicine

505. Obstetrics/Gynecology Clerkship Fall, Winter, Spring. Summer. 1 to 17 credits. May re-enroll for a maximum of 41 credits. II M 502.
Experiences with gynecologic and obstetric 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

501. Medical Biology I Fall. 4/4-0 credits
Integrated aspects of biology providing a foundation and vocabulary preparatory to studies in osteopathic medicine.

502. Medical Biology II Winter. 3 to 8 credits. Admission to a college of medicine. Continuation of 501 emphasizing pathology and pharmacology.

*Established July 1, 1971.

530. Clinical Science I Fall. 2/1-3 credits. Approval to college of medicine.
Fundamental concepts and skills essential to the performance of a clinical history and physical examination.

531. Clinical Science II Winter. 2/3 credits
Techniques, concepts and skills required for component history taking and physical examination utilizing lectures, laboratory and films for instructional purposes.

532. Clinical Science III Spring. 1/0-3 credits. 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 Summer. 1/0-3 credits. Admission to a college of medicine.
Continuation of 532.

534. Clinical Science V Fall. 1/0-3 credits. 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 clinical setting.

535. Clinical Science VI Winter. 1/0-3 credits. Admission to a college of medicine.
A continuation of 534.

536. Clinical Science VII Spring. 1/0-3 credits. Admission to a college of medicine.
Continuation of 535.

537. Clinical Science VIII Summer. 1/0-3 credits. Admission to a college of medicine.
Continuation of 536.

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 8 credits. May re-enroll for a maximum of 24 credits. Approval of department. Individual or group work on special problems in medicine.

OSTEOPATHIC MEDICINE OST (COLLEGE OF)

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

554. Systems Biology IV  
(O M 552.) Fall, 5 to 15 credits. Admission to a professional medical program.  
Continuation of 553 with emphasis on multidisciplinary approach to the cardiovascular system.

555. Systems Biology V  
(O M 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  
(O M 555.) 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  
(O M 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  
(O M 555.) Summer, 5 to 15 credits. Admission to a professional medical program.  
Continuation of 557 with emphasis on multidisciplinary approach to 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.

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 package.

330. Graphics for the Packaging Industry  
Winter, 3(3-0) 320 or approval of school.  
Designing graphics for specific type 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  
(4-4)  
A broad study of the effects of packaging on environmental quality, including solid wastes, 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) 423, 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 credits. May re-enroll for a maximum of 9 credits. 499, 2.5 grade-point average and approval 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 processes. 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.  

428. Packaging Development  
Fall, Spring, 4(3-3) 422 or approval of school.  
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, including consideration of design, selection, specification and operation of machinery for the package-making and package-filling operations.

433. Seminar  
Fall, 2(0-4) Must have job experience to enroll.  
Detailed report on work performed in practical experience or outside packaging projects.

501. 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 credits.

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

Building Construction  
B C

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  
Winter, 4(4-0)  
Design of and planning for mechanical and electrical utilities in housing.

413. Residential Construction Systems  
Spring, 4(3-3) 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.

415. Building Materials  
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 department.  
Methods of cost estimating. Effects of codes and production practices on costs.

417. Residential Finance  
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.