444. Pest Management I: Systems Management for Plant Protection

(437.) Fall. 4(3-2) FSM 200 or EC 201. Interdepartmental with Agriculture and Natural Resources.

Designed to integrate knowledge and improve ability in arriving at pest management decisions of varying complexity involving the fields of agronomy, wildlife, horticulture, entomology, and plant pathology.

445. Pest Management II: Pesticide Chemistry and Application Systems for Plant Protection

(435.) Winter. 5(3-4) CEM 132. Interdepartmental with Agriculture and Natural Resources.

A broad overview of pesticide chemistry, efficient usage, environmental fate, legislation and application techniques.

446. Pest Management III: Biological Systems for Plant Protection

(436.) Spring. 3(3-0) ENT 430, BOT 405, HRT 402 or CSS 402. Interdepartmental with Agriculture and Natural Resources.

Management of plant pests utilizing host resistance, cultural practices, legislation, and biological systems.

460. Clinic in Natural Science Teaching

Fall, Winter, Spring, Summer. 1 credit. May reenroll for a maximum of 6 credits. Bachelor's degree.

Each practicum will deal with a specific science or science related problem and its implications for instruction. Discussions are intended to have immediate application by participants.

801. Special Problems in Electron Microscopy

Fall, Winter, Spring, Summer. 1 to 15 credits. Approval of instructor.

810. Methods in Transmission Electron Microscopy

Winter, Spring. 3(1-5) NSC 400 or approval of instructor.

Use of the transmission electron microscopes and preparative instruments. Preparative technique for biological and nonbiological materials. Photographic principles including interpretation of micrographs.

820. Methods in Scanning Electron Microscopu

Winter, Spring. 3(1-5) NSC 400 or approval of instructor.

Use of the scanning electron microscope and preparative equipment. Preparative technique for biological and nonbiological materials. Interpretation of micrographs.

830. Analytical Electron Misroscopy Fall. 2(1-3) NSC 810 or NSC 820 or

Fall. 2(1-3) NSC 810 or NSC 820 or approval of instructor,

Use of X-ray analysis on electron microscopes and electron microprobes with biological and physical materials. Methods of preparation and analysis of product data.

NURSING

ΝE

College of Natural Science

200. Nursing I

Spring. 4(4-0) Admission to School of Nursing.

Concepts and theories of nursing, science and Man in relation to professional nursing pretice. Role of nursing in contemporary society.

300. Nursing II

Fall, Summer, 10(7-9) N E 200.

Independent nursing role. The well individual. Holistic approach to Man. Impact of developmental levels upon client health. Application of nursing process in maintaining wellness.

301. Nursing III

Fall, Winter. 10(6-12) N E 300.

Independent nursing role. Application of nursing process in a variety of health care settings. Healthy clients adapting to stress at all stages in the life cycle.

302. Nursing IV

Winter, Spring. 10(5-15) N E 301, N E

441.

407.

Promotion of adaptation of individuals in diminished-stable health states and families in stable health states. Relates research findings to practice.

400. Nursing V

Fall, Spring. 10(5-15) N E 302, N E

Individuals in diminished-unstable health states and families in stable health states. Community assessment skills. Interdisciplinary approach to health care systems. Relates research findings to practice.

400H. Honors Work

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

401. Nursing VI

Winter, Summer. 10(4-18) N E 400.

Individuals in compensated-decompensated health states, families in diminished-unstable health states, and communities in optimal health states. Functions interdependently within health care teams. Applies resesarch findings to practice.

405. Nursing VII

Fall, Spring. 10(3-21) N E 401.

Integration of nursing, biological and behavioral sciences stressing application of the nursing process to the care of individuals, families and communities in depleted health states. Applies research findings to practice.

407. Introduction to Nursing Research

Winter, Spring. 2(2-0) Approval of

school.

Critical reading and critique of nursing research literature; define research terminology and procedures and apply to clinical nursing through discussion and writing.

440. Clinical Problems in Adaptation

Fall, Summer. 5(5-0) PSL 241 and approval of school.

Homeostasis; range of physiological alterations to stress. Man's adaptive-maladaptive responses.

441. Clinical Problems in Adaptation

Fall, Winter. 5(5-0) N E 440 and approval of school.

Continuation of N E 440.

490. Special Problems in Nursing

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

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

495. Selected Topics in Nursing

Fall, Winter, Spring. 2 to 6 credits. May reenroll for a maximum of 6 credits if different topic is taken. Approval of school.

Allows exploration of unique issues in nursing. Topics to be selected from current issues.

521. Evaluation of Health Services

Spring. 2 to 4 credits. Approval of instructor. Interdepartmental with and administered by the Department of Community Health Science.

Use of experimental and quasi-experimental designs. Cost benefit and efficiency models. Assessment of health services delivery.

540. Family Health Seminar

(561.) Fall. 3(3-0) Majors or approval of instructor.

Conceptual frameworks of family. Assessment of family health behavior.

541. Facilitating Patient Participation

(552.) Winter. 2(2-0) N E 564 or approval of instructor.

Learning theories and methods to promote patient self care.

564. Primary Care Seminar I: Role of Family Nurse Clinician

(560.) Fall. 2(2-0) Approval of instruc-

tor.

Role of the Family Nurse Clinician in primary care.

565. Primary Care Seminar II: Interdisciplinary Team Functioning

(550.) Winter. 2(2-0) Approval of instructor.

Theories of team functioning. Communication, consultation, collaboration, conflict and decision making. Role strategies.

566. Primary Care Seminar III: Organizational Structure

(562.) Spring. 3(3-0) N E 564, N E 565 or approval of instructor.

Organization of primary care. Administration of the nursing service.

567. Primary Care Seminar IV: Health Care Policy

(563.) Summer, 3(3-0) NE 566 or approval of instructor.

Policy influence on health care delivery systems.

570. Nursing Theories and Conceptual Models

Fall. 3(3-0) STT 421 or approval of in-

structor.

Issues, problems and processes of theory and concept development.

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.