890 Special Problems
Fall, Spring. 1 to 4 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Open only to master's students in the College of Nursing or approval of college. SA: NUR 590
Individual or group in-depth study of specific areas in nursing. Independent study.

891 Selected Topics
Fall, Spring. 1 to 4 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open only to master's students in the College of Nursing or approval of college. SA: NUR 591
Selected issues, trends, programs, or theories in nursing.

899 Master's Thesis Research
Fall, Spring. 1 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. RB: (NUR 811) R: Open only to master's students in the College of Nursing. Approval of college.
Master's thesis research.

901 Knowledge Development in Nursing
Fall. 3(3-0) R: Open only to doctoral students in the College of Nursing or approval of college.
Development and growth of substantive knowledge within nursing. Middle range theories. Strategies for concept development and theory testing in nursing research for understanding health status and health outcomes for individuals, families and community-based primary care.

910 Health Status Outcomes: The Individual and Family
Spring. 3(3-0) R: Open to all doctoral students or approval of college
Measurement and conceptual underpinnings of health status outcomes for individuals and families across the life span. Focus on well-being in health and illness within community based primary care.

911 Health Status Outcomes: Community/Primary Care
Fall. 3(3-0) R: Open to all doctoral students or approval of college.
Measurement of health status outcomes for populations across the life span within the community based primary care systems. Measurement and evaluation issues related to the costs of intervention to impact outcomes.

920 Translation of Research and Scientific Knowledge to a Community Setting
Spring. 3(2-3) R: Open only to doctoral students in the College of Nursing or approval of college.
The systematic application of scientific knowledge to inform clinical practice, policy and delivery system changes to enhance the health status and health outcomes of community populations. Translation strategies include dissemination, networking, program development and evaluation. Opportunities for translation will occur in primary health care, organizational and governmental systems.

930 Methods In Clinical Research
Spring. 3(2-3) R: Open to all doctoral students or approval of college.
Advanced research designs, measurement and data collection strategies. Draws on a broad range of behavioral and health disciplines relevant to nursing. Logic of statistical models used in the evaluation of research designs and measures.

940 Research Practicum
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open only to doctoral students in the College of Nursing or approval of college.
Practical experiences as a researcher through participation in ongoing research of nursing faculty and as a member of an interdisciplinary research team.

990 Special Problems
Fall, Spring, Summer. 1 to 4 credits. R: Open only to doctoral students in Nursing or approval of college.
Individual or group in-depth study of specific areas in nursing research.

999 Doctoral Dissertation Research
Fall, Spring, Summer. 1 to 24 credits. R: Open only to doctoral students in the College of Nursing or approval of college.
Original research of student under supervision of major advisor.

OBSTETRICS, GYNECOLOGY AND REPRODUCTIVE BIOLOGY OGR

Department of Obstetrics, Gynecology and Reproductive Biology
College of Human Medicine

608 Obstetrics and Gynecology Required Clerkship
Fall, Spring, Summer. 6 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course. RB: (FMP 602) R: Open only to graduate-professional students in College of Human Medicine.
Obstetrics and gynecology in inpatient and ambulatory settings. Clinical experiences, didactic sessions, hospital rounds discussions. Case writeups and presentations.

609 Advanced Obstetrics and Gynecology Clerkship
Fall, Spring, Summer. 4 to 6 credits. RB: (OGR 608) R: Open only to graduate-professional students in College of Human Medicine.
Additional exposure to obstetrics or gynecology in the preceptor mode. Participation in ambulatory and inpatient care including surgery. May include maternal and fetal medicine

610 Perinatology Clerkship
Fall, Spring, Summer. 4 to 6 credits. RB: (OGR 608) R: Open only to graduate-professional students in College of Human Medicine.
Additional exposure to high risk obstetrics including prenatal diagnosis and counseling, antepartum evaluation, and care of the high risk patient. Management of the intrapartum high risk patient.

611 Reproductive Endocrinology and Infertility Clerkship
Fall, Spring, Summer. 4 to 6 credits. RB: (OGR 608) R: Open only to graduate-professional students in College of Human Medicine.
Added exposure to clinical problems in reproductive endocrinology and female infertility primarily in ambulatory setting. Occasional participation in inpatient experiences. Assisted reproductive technologies.

612 Gynecologic Oncology Clerkship
Fall, Spring, Summer. 4 to 6 credits. RB: (OGR 608) R: Open only to graduate-professional students in College of Human Medicine.
Added clinical experience in inpatient and ambulatory gynecologic oncology, breast disease, and complicated benign gynecology in the preceptor mode. Pre-treatment evaluation and cancer management, including surgery.

633 Extended Clinical Experience
Fall, Spring, Summer. 6(6-0) Fall: All six(6) campuses. Spring: All six(6) campuses. Summer: All six(6) campuses. P:M: (OGR 608)
Based in community hospitals and ambulatory sites, this is a 4 week clinical experience emphasizing interviewing skills, history, physical exam, problem solving and therapy.

637 Core Competencies III
Fall, Spring, Summer. 2(2-0) Fall: same as below. Spring: Flint-Saginaw-GR-Lansing-Kalamazoo-UP. Summer: Flint-Saginaw-GR-Lansing-Kalamazoo-UP. A student may earn a maximum of 6 credits in all enrollments for this course. Interdepartmental with Human Medicine; Family Practice; Medicine; Pediatrics and Human Development; Surgery. Administered by College of Human Medicine. R: Open only to graduate-professional students in College of Human Medicine.
Core knowledge and skills from an interdisciplinary perspective.

OSTEOPATHIC MANIPULATIVE MEDICINE OMM

Department of Osteopathic Manipulative Medicine
College of Osteopathic Medicine

501 Osteopathic Manipulative Medicine I
Fall. 1(0-2) R: Open only to students in the College of Osteopathic Medicine.
Basic osteopathic palpatory skills leading to osteopathic diagnosis and treatment using counterstrain and muscle energy techniques.

502 Osteopathic Manipulative Medicine II
Spring. 1(0-2) P:M: (OMM 501) R: Open only to students in the College of Osteopathic Medicine.
Muscle energy continued followed by osteopathic diagnosis and treatment using hi velocity low amplitude (mobilization with impulse) techniques.

503 Osteopathic Manipulative Medicine III
Summer. 1(0-2) P:M: (OMM 502) R: Open only to students in the College of Osteopathic Medicine.
Osteopathic diagnosis and treatment using functional indirect and myofascial release techniques.

504 Osteopathic Manipulative Medicine IV
Fall. 1(0-2) P:M: (PHM 563 and RAD 553 and OST 511 and OMM 503) R: Open only to students in the College of Osteopathic Medicine.
Osteopathic diagnosis and treatment using craniosacral techniques and various osteopathic manipulative approaches to the extremities.

505 Osteopathic Manipulative Medicine V
Spring. 1(0-2) P:M: (OMM 504) R: Open only to students in the College of Osteopathic Medicine.
Application of osteopathic palpatory skills and treatment modalities in the approach to patients in various systems such as pulmonary and cardiovascular.

506 Osteopathic Manipulative Medicine VI
Summer. 1(0-2) P:M: (OMM 505) R: Open only to students in the College of Osteopathic Medicine.
Continued integration of osteopathic manipulative treatment in patient care in preparation for clinical curriculum.

590 Special Problems in Biomechanics
Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 48 credits in all enrollments for this course. R: Open only to graduate and graduate-professional students in the College of Osteopathic Medicine. Approval of department. SA: BIM 590
Each student works under faculty direction on an experimental, theoretical, or applied problem.

601 Osteopathic Manipulative Medicine Clerkship
Fall, Spring, Summer. 1 to 20 credits. A student may earn a maximum of 30 credits in all enrollments for this course. R: Open only to graduate-professional students in the College of Osteopathic Medicine upon completion of Units I and II. SA: BIM 601, BIM 601
Advanced training in the diagnosis of musculoskeletal dysfunction and application of osteopathic manipulative techniques.

620 Directed Studies
Fall, Spring, Summer. 1 to 30 credits. A student may earn a maximum of 30 credits in all enrollments for this course. SA: BIM 620
Individual or group work on special problems related primarily to the biomechanics of the musculoskeletal system.

800 Special Topics
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course. SA: BIM 800
Directed study in topics of biomechanics.

890 Independent Study
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 22 credits in all enrollments for this course. R: Approval of department. SA: BIM 890
Individual or group work related to biomechanics and/or neuromuscular system.

899 Master's Thesis Research
Fall, Spring, Summer. 0(2-2) A student may earn a maximum of 25 credits in all enrollments for this course. SA: BIM 899
Master's thesis research.

OSTEOPATHIC MEDICINE OST

College of Osteopathic Medicine

401 Selected Topics in Osteopathic Medicine
Fall, Spring. 1(1-0) RB: Student with academic interest and career focus toward medicine and the health sciences.
Classical, current and innovative osteopathic medical trends in patient treatment and care.

501 Clinical Skills I
Fall. 2(1-2) R: Open only to graduate-professional students in the College of Osteopathic Medicine.
Introduction to osteopathic physical examination.

502 Clinical Skills II
Spring. 2(1-2) P:M: (OST 501 or concurrently and ANTR 551) R: Open only to graduate-professional students in the College of Osteopathic Medicine.
Continuation of OST 501.

504 Doctor/Patient Relationship I
Fall. 1(0-2) R: Graduate-professional students in College of Osteopathic Medicine.
Basics of interpersonal communication related to physician interaction with patients.

505 Doctor/Patient Relationship II
Spring. 1(0-2) P:M: (OST 504) R: Open only to graduate-professional students in the College of Osteopathic Medicine.
Skills of interviewing patients for the purposes of gathering information, giving information, and patient motivation.

511 Systems Biology: Neuromusculoskeletal I
Summer. 7(5-4) P:M: (ANTR 551 and OST 501 and PTH 542 and BMB 514 and OMM 501 and OST 505 and BMB 526 and NOP 552 and OST 502 and PSL 534 and PSL 535 and OMM 502 and OST 504 and MMG 522) R: Open only to graduate-professional students in the College of Osteopathic Medicine. Approval of college.
Multidisciplinary approach to the peripheral neuromusculoskeletal system. Integration of basic science and clinical information.

512 Systems Biology: Neuromusculoskeletal II
Fall. 5(4-2) P:M: (OST 511 and PHM 563 and OMM 503 and RAD 553) R: Open only to graduate-professional students in the College of Osteopathic Medicine.
Multidisciplinary approach to the neuromusculoskeletal system. Central nervous system and ophthalmology. Integration of basic science and clinical information.

513 Systems Biology: Neuromusculoskeletal III
Spring. 5(3-4) RB: (OST 512) R: Open only to graduate-professional students in College of Osteopathic Medicine. Approval of college.
Multidisciplinary approach to the neuromusculoskeletal system. Emphasis on ophthalmology, rheumatology, and orthopedics. Integration of basic science and clinical information with osteopathic manual medicine.

517 Systems Biology: Behavior II
Spring. 2(2-0) RB: (OST 516) R: Open only to graduate-professional students in College of Osteopathic Medicine.
A multidisciplinary approach to behavior. Focus on psychopathology, chronic illness and disability, health policy and terminal care.

519 Ethics, Policy and Jurisprudence
Spring. 2(2-0) P:M: (OST 512 and OST 529 and OST 530 and OST 527 and OMM 504 and FCM 640 and OST 522) R: Open only to graduate and graduate-professional students in the colleges of Osteopathic Medicine, Human Medicine and Nursing or approval of department.
Key issues in ethics, policy and law encountered in the practice of medicine.

520 Behavioral Medicine System
Fall, Spring. 3(3-0) P:M: (OST 511 and PHM 563 and OMM 503 and RAD 553) R: Open only to graduate-professional students in the College of Osteopathic Medicine. SA: OST 516
Health promotion models, health behavior, stress and coping, models of substance abuse, substance abuse screening and interventions, human sexuality, psychosocial aspects of chronic illness, understanding and treating pain.

521 Systems Biology: Hematopoietic
Fall. 2(2-0) P:M: (OMM 504 and OST 527 and FCM 640 and OST 522 and OST 530 and OST 512 and OST 529 and OST 520) RB: (ANTR 551 and ANT 563 and BMB 521 and MMG 522 and PHM 563 and PTH 542) R: Open only to graduate-professional students in College of Osteopathic Medicine. Approval of college.
Multidisciplinary approach to the hematopoietic system. Hematopoiesis, clotting, and hematopoietic pathologies. Integration of clinical and basic science information.

522 Systems Biology: Gastrointestinal
Fall. 5(5-0) P:M: (OST 511 and PHM 563 and RAD 553 and OMM 503) R: Open only to graduate-professional students in the College of Osteopathic Medicine.
Multidisciplinary approach to the gastrointestinal system. Normal structure and function, and pathologies. Integration of basic science and clinical information.