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): 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.

OEASTETRICS, 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. P:NM: (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. P:NM: (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. P:NM: (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. P:NM: (OGR 608): R: Open only to graduate professional students in College of Human Medicine.
Added exposure to 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. P:NM: (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): P:NM: (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
Spring, Summer. 2 credits. 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 Human Medicine. P:NM: (FMP 602): R: Open only to graduate-professional students in College of Human Medicine.
A weekly seminar addressing core knowledge and skills from an interdisciplinary perspective.

640 Advanced Comprehensive Care
Fall, Spring, Summer. 6 credits. A student may earn a maximum of 18 credits in all enrollments for this course. Interdepartmental with Family Practice; Human Medicine; Medicine; Pediatrics and Human Development. Administered by Department of Family Practice. P:NM: (FMP 608 and PHD 600 and MED 508): R: Open only to graduate-professional students in College of Human Medicine.
Clinical experience in community-oriented primary care. Emphasis on urban and rural underserved populations.

OSTEOPATHIC MANIPULATIVE MEDICINE
OMM

Department of Osteopathic Manipulative Medicine
College of Osteopathic Medicine

500 Student Osteopathic Manipulative Medicine Practical Laboratory
Fall, Spring. 1 credit. A student may earn a maximum of 4 credits in all enrollments for this course. P:NM: (OST 501 and OST 502 and OST 504 and OST 505)
Elective course of didactic and clinical sessions which apply osteopathic principles and techniques on patients.

501 Osteopathic Manipulative Medicine I
Fall. 1(0-2) Interdepartmental with Physical Medicine and Rehabilitation. R: Open only to students in the College of Osteopathic Medicine.
Basic osteopathic palpatory skills. Building on their basic palpatory skills, students will learn skills in the osteopathic manipulative treatment areas of counterstrain and muscle energy.

502 Osteopathic Manipulative Medicine - II
Spring. 1(0-2) Interdepartmental with Physical Medicine and Rehabilitation. P:NM: (OMM 501): R: Open only to students in the College of Osteopathic Medicine.
Students will continue to learn skills in the osteopathic manipulative treatment area of muscle energy as well as high velocity low amplitude (mobilization with impulse).

503 Osteopathic Manipulative Medicine - III
Summer. 1(0-2) Interdepartmental with Physical Medicine and Rehabilitation. P:NM: (OMM 502): R: Open only to students in the College of Osteopathic Medicine.
Students will use their palpatory skills as they learn the principles of functional (indirect) and myofascial release osteopathic manipulative treatment.

504 Osteopathic Manipulative Medicine - IV
Fall. 1(0-2) Interdepartmental with Physical Medicine and Rehabilitation. P:NM: (OMM 503): R: Open only to students in the College of Osteopathic Medicine.
Basic cranio-sacral osteopathic manipulative medicine. Exposure to various osteopathic approaches to the extremities.

505 Osteopathic Manipulative Medicine - V
Spring. 1(0-2) Interdepartmental with Physical Medicine and Rehabilitation. P:NM: (OMM 504): R: Open only to students in the College of Osteopathic Medicine.
Use of patient complaints/conditions to integrate material presented in OMM 501, 502, 503, 504 while preparing the student for OMM 506.

506 Osteopathic Manipulative Medicine - VI
Summer. 1(0-2) Interdepartmental with Physical Medicine and Rehabilitation. P:NM: (OMM 505): R: Open only to students in the College of Osteopathic Medicine.
The osteopathic component in the context of total patient care in disorders of various systems.
Osteopathic Manipulative Medicine—OMM

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, 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.

830 Biomechanical Analysis of Physical Activity
Fall, Spring. 3(2-2) Interdepartmental with Kinesiology; Medicine; Obstetrics, Gynecology and Reproductive Biology; Pediatrics and Human Development; Surgery. Administered by Department of Kinesiology, SA: BIM 830, PES 830

Kinematic analysis of mechanical and anatomical characteristics in physical activity and sport skills.

831 Advanced Biomechanics of Physical Activity
Spring of even years. 3(2-2) Interdepartmental with Kinesiology; Medicine; Obstetrics, Gynecology and Reproductive Biology; Pediatrics and Human Development; Surgery. Administered by Department of Kinesiology. P:NM: (KIN 830) SA: BIM 831, KIN 831

Kinetic analyses of the performance of physical activity and sport.

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.

930 Current Issues in Biomechanical Aspects of Physical Activity
Spring. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. Interdepartmental with Kinesiology; Medicine; Obstetrics, Gynecology and Reproductive Biology; Pediatrics and Human Development; Romance Languages. Administered by Department of Kinesiology. P:NM: (KIN 830) SA: BIM 930, PES 930

Selected issues of biomechanical analyses of sport and physical activity.

OSTEOPATHIC MEDICINE

OST College of Osteopathic Medicine

401 Selected Topics in Osteopathic Medicine
Fall, Spring. 1(1-0) RB: Subject 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. 3(1-4) R: Graduate-professional students in College of Osteopathic Medicine. Introduction to osteopathic physical examination.

502 Clinical Skills II
Spring. 3(1-4) P:NM: (OST 501) R: Graduate-professional students in 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:NM: (OST 504) R: Graduate-professional students in College of Osteopathic Medicine. Skills of interviewing patients for the purposes of gathering information, giving information, and patient motivation.

511 Systems Biology: Neurornusculoskeletal I
Summer. 7(5-4) P:NM: (ANT 551 and ANT 552 and OST 501 and OST 502 and PSL 501) R: Open only to graduate-professional students in College of Osteopathic Medicine. Approval of college. A multidisciplinary approach to the peripheral neuromusculoskeletal system. Integration of basic science and clinical information with osteopathic manual medicine.

512 Systems Biology: Neurornusculoskeletal II
Fall. 6(4-4) P:NM: (OST 511) R: Open only to graduate-professional students in College of Osteopathic Medicine. Approval of college. A multidisciplinary approach to the neuromusculoskeletal system. Emphasis on the central nervous system. Integration of basic science and clinical information with osteopathic manual medicine.

513 Systems Biology: Neurornusculoskeletal III
Spring. 5(3-4) P:NM: (OST 512) R: Open only to graduate-professional students in College of Osteopathic Medicine. Approval of college. A 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) P:NM: (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) R: Open only to 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. 4(4-0) R: Open only to graduate-professional students in the College of Osteopathic Medicine. SA: OST 516 Not open to students with credit in OST 517. 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. 6(6-0) P:NM: (ANT 551 and ANT 552 and BMB 521 and MIC 522 and PHM 563 and PTH 542) R: Open only to graduate-professional students in College of Osteopathic Medicine. Approval of college. A multidisciplinary approach to the hematopoietic system. Emphasis on hemopoiesis, clotting, and hematopoietic pathologies. Integration of clinical and basic science information.

522 Systems Biology: Gastrointestinal
Fall. 6(6-0) P:NM: (ANT 551 and ANT 562 and BMB 521 and BMB 563 and PHM 563 and PTL 542) R: Open only to graduate-professional students in College of Osteopathic Medicine. Approval of college. A multidisciplinary approach to the gastrointestinal system emphasizing normal structure and function, and pathologies. Integration of basic science and clinical information.

523 Systems Biology: Genitourinary
Summer. 5(5-0) P:NM: (ANT 551 and ANT 562 and BMB 521 and MIC 522 and PHM 563 and PTL 542) R: Open only to graduate-professional students in College of Osteopathic Medicine. Approval of college. A multidisciplinary approach to the urinary system. Emphasis on normal structure and function, and pathologies, of the urinary and male reproductive systems. Integration of basic science and clinical information.