CHIROPRACTIC (CHR)

CHR-579 Special Topics (6.00000 credits)

CHR-600L Introduction to Chiropractic Lab (2 credits)
Clinical laboratory sessions comprise additional instruction, demonstration and practice of the following chiropractic evaluation techniques: static palpation, postural evaluation, spinal landmark evaluation, leg-length evaluation and Maigne's method of evaluation.

Prerequisite(s): Take BIO-639

CHR-613 Pharmacology I (3 credits)
The pharmacology course series integrates the principles and mechanisms of action and drug effect with the pharmacotherapy of common disease and syndromes.

CHR-614 Pharmacology II (3 credits)
This course is a continuation of Pharmacology I.

Prerequisite(s): Take CHR-613

CHR-621 Physiologic Therapeutics (4 credits)
This course studies the therapeutic utilization of heat, cold, light, electricity and sound. Students analyze physiologic responses to therapeutic modalities and evaluate their effectiveness as therapeutic agents. This course also includes a review of research relative to the therapeutic modalities. Theories and methods of the holistic approach to management of acute and chronic pain syndromes are presented. Laboratory experiences include practice sessions to gain experience in the utilization of heat, cold, light, electricity and sound for management of acute and chronic pain syndromes.

Prerequisite(s): Take BIO-639 BIO-639L CHR-600L

Corequisite(s): Take CHR-621L

CHR-621L Physiological Therapeutics Lab (1 credits)
This lab is consistent with material covered in lectures in CHR-621.

Prerequisite(s): Take BIO-639 BIO-639L CHR-600L

Corequisite(s): Take CHR-621

CHR-623 Clinical Internship I (7 credits)
The focus of this course is on comprehensive health: wellness maintenance, illness prevention and restorative care. Patients of different age groups and cultural backgrounds are treated. The practice emphasis is on the structure and function of the body's neuromusculoskeletal framework and the relationship this framework has tithe health and well-being of the whole person (bio-psycho-social-spiritual). Spinal manipulation is the major intervention. The range of services provided include the use of diagnostic imaging to evaluate patients with neuromusculoskeletal, related health problems and pathologies, physiotherapeutic modalities, life-style and nutrition counseling; and the use of a variety of myofascial and rehabilitative procedures considered complementary in nature. Additionally, students are taught the importance of case management and/or utilization of referral and follow-up procedures for patients experiencing pathologies that require cotreatment with other licensed health care providers. Prerequisite: BIO-507L BIO-508L BIO-603 BIO-603L BIO-607 BIO-608 BIO-608L BIO-610 BIO-639 BIO-639L BIO-659 BIO-660 CHR-654 CHR-657 CHR-664 CHR-665 CHR-637 CHR-636 CHR-643 CHR-614 CHR-634 as well as a passing score on NBCE or CCEB (Canadian students) and IRB approval.

Prerequisite(s): Take BIO-507L BIO-508L BIO-603 BIO-603L BIO-607 BIO-608 BIO-608L BIO-610 BIO-639 BIO-639L BIO-659 BIO-660 CHR-634 CHR-636 CHR-637 CHR-657 CHR-664 CHR-665

CHR-624 Clinical Internship II (7 credits)
This course is a continuation of CHR 623, clinical internship I. Prerequisite: CHR-623

CHR-625 Clinic Internship III Preceptorship (7-9 credits)
This course builds on the clinical internship requirements. The same focus on practice continues; however, the preceptor hours are completed in a variety of community-based clinical settings under the supervision of qualified preceptor mentor. Prerequisite: CHR-624

Prerequisite(s): Take CHR-624

CHR-627 Project Advisement (1-3 credits)
This course provides faculty guidance in the implementation, evaluation and completion of an approved research project. The project must be completed according to the guidelines as printed in the D'Youville College Project Handbook. Student must register for their project director's section and for the number of credit hours required by the program.

CHR-628 Evaluation and Management of Dermatologic Conditions (2 credits)
This course focuses on the evaluation, differential diagnosis, and management of common conditions involving the skin and appendages. Synthesis of history and physical exam data along with laboratory and other advanced testing will be applied to formulate a diagnosis of common dermatologic conditions. This course will expose students to treatment options to formulate a management plan inclusive of nutritional therapy in the form of diet, exercise, lifestyle changes, spinal manipulation, and other rehabilitative procedures.

Prerequisite(s): Take BIO-639

CHR-631 Biomechanics (3 credits)
This course will introduce the student to basic biomechanics. This will include the understanding of basic terminology associated with human movement in three planes. This course will also present an introduction to kinematics and kinetics as it pertains to human movement both normal and abnormal. Clinical case studies will be analyzed with specific attention placed on the most commonly treated chiropractic diagnoses as they relate to clinical practice. An analysis of upper and lower extremity joint mechanics will be introduced. Specific attention will be placed on spinal biomechanics both normal and abnormal.

Prerequisite(s): Take CHR-701L

CHR-633 Clinical Nutrition (2 credits)
This course will provide the student with an understanding of the principles and practices of "evidence-informed clinical nutrition" and its importance in patient centered management. The subject will review the basic biochemical properties of nutrients as well as common diagnostic tests to identify a condition, recommend specific nutrients and monitor therapeutic benefits of these recommendations. This course will serve as a capstone course to compliment other core curriculum nutrition courses of the DYC doctor of chiropractic program. The format of the course may include Power Point presentations, Panopto recordings, case studies, clinically based projects and review of the best available evidence in the current literature.

Prerequisite(s): Take BIO-603 NTR-611

CHR-634 Intro to Epidemiology & Public Health (3 credits)
This course is focused on the discussion of different definitions and descriptions of what constitutes public health, the contributions and value of public health and the interface that exists between chiropractic practice and public health. The Wellness Model of Healthy People 2010 and levels of prevention are discussed along with examples as to how basic public health concepts should be incorporated into the development of a comprehensive chiropractic plan of care. Lectures cover such topics as the impact on public health by environmental factors, d and nutrition, infectious diseases, chronic diseases, physical fitness,musculoskeletal conditions, accidents and physical injuries, and tobacco, alcohol and drug abuse. Emphasis is placed on reviewing health care and public health literature and on integrating evidence based research findings into clinical practice. The importance of incorporating health teaching and counseling related to disease prevention and health promotion into the chiropractic plan of care and on understanding public health as a personal responsibility is stressed. The need for more integration of chiropractic into the mainstream public health system is discussed.

CHR-635 Spinal Anatomy (3 credits)
This course involves an in-depth study of the nervous system including: embryology, neuroanatomy, neurophysiology, and neuropharmacology. This course will include laboratory sections of the anatomy of the spine bones, muscles, and nerves by examining specimens.

Prerequisite(s): Take BIO-639

Corequisite(s): Take CHR-635L

CHR-635L Spinal Anatomy Lab (1 credits)
This lab is consistent with material covered in lecture in Chr 635.

Corequisite(s): Take CHR-635

CHR-636 Sports Injuries & Emergency Care (1 credits)
This course shall prepare the health care practitioner to appropriately evaluate and provide basic lifesaving skills for a variety of medical emergencies. Such medical emergencies can present themselves to a health care practitioner in a variety of settings including, but not limited to,one's clinical practice, a sporting event or during personal time. This course will prepare the health care practitioner to appropriately evaluate the safety of the scene of the emergency,clinically evaluate the patient's injuries, and treat/ stabilize said injuries utilizing basic life savings and other clinical management techniques. Additionally, this course will relate the general training and goals of a medical team,as well as members of the emergency medical services team, to better prepare the health care practitioner to collaboratively engage with these individuals.

Prerequisite(s): Take BIO-639 BIO-639L CHR-640 CHR-640L

Corequisite(s): Take CHR-636L

CHR-636L Sports Injuries & Emergency Care Lab (2 credits)
This lab is consistent with material covered in lectures in CHR-636.

Prerequisite(s): Take BIO-639 CHR-640

Corequisite(s): Take CHR-636

CHR-637 Chiropractic Rehabilitation (2 credits)
Students in this course learn the contemporary use of exercise for the rehabilitation and functional restoration of the musculoskeletal system. The course is taught in a case-based format, providing practical information for planning, prescribing and monitoring exercise programs in a region-specific context. Students also learn the indications and contraindications for therapeutic exercise prescription and concepts of exercise progression. They develop an understanding of the chiropractor's role in functional recovery as it pertains to occupational issues and disability management.

Prerequisite(s): Take CHR-621 CHR-621L CHR-655 CHR-655L

Corequisite(s): Take CHR-637L

CHR-637L Chiropractic Rehabilitation Lab (3 credits)
This lab is consistent with material covered in lectures in CHR-637.

Prerequisite(s): Take CHR-621 CHR-621L CHR-655 CHR-655L

Corequisite(s): Take CHR-637

CHR-638 Psychology for Health Care Professionals (3 credits)
The purpose of this course is to provide students with knowledge concerning issues they may face as future practitioners regarding themselves and their patients. Specifically, the course will provide an overview of mental health concerns, crisis issues, pain management and self-care. Attention will also be given concerning how these issues are to be addressed as students work with future patients along with attempting to make appropriate referrals.

CHR-639 History & Physical Examination (3 credits)
Examines all areas of patient interviewing such as history of present illness, comprehensive health history, recordkeeping, problem-oriented history-taking, narrative format histories, nonverbal communication, and patients with special problems. Students learn and practice examination and assessment, with emphasis on performing and interpreting comprehensive physical examination procedures of the non-neuromusculoskeletal systems in the adult patient. Laboratory experience will include continuing demonstration and practice of the history taking and physical exam procedures.

Prerequisite(s): Take BIO-639

Corequisite(s): Take CHR-639L

CHR-639L History & Physical Examination Lab (2 credits)
This lab is consistent with material covered in lectures in CHR-639.

Corequisite(s): Take CHR-639

CHR-640 Clinical Diagnosis (6 credits)
Introduction to laboratory skills, including venipuncture, and discussion of urinalysis, hematology and serology. Emphasis on interpretation of laboratory test results and study of case histories to enhance clinical learning and diagnostic skills. Discussion of laboratory alterations accompanying abnormal function of body organs and specific diseases, with emphasis on interpretation of blood chemistries. Choosing appropriate lab tests. Correlation of laboratory results with patient history and examination findings. Case histories are discussed to enhance clinical learning.

Prerequisite(s): Take BIO-607 BIO-610 BIO-639 CHR-639 CHR-639L

Corequisite(s): Take CHR-640L

CHR-640L Clinical Diagnosis Lab (1 credits)
This lab is consistent with material covered in lectures in CHR-640.

Prerequisite(s): Take BIO-607 BIO-610 BIO-639 CHR-639 CHR-639L

Corequisite(s): Take CHR-640

CHR-641 Historical Foundations (1 credits)
This course will introduce the student to the historical foundations of our profession. They will become familiar with the key individuals and events that created and shaped Chiropractic as a profession. The student will examine the historical relationship with other professions.

CHR-642 Chiropractic Theories & Evolution Theories & Evolution of the Profession (1 credits)
This course will introduce the student to the historical evolution of the theories of the chiropractic subluxation. They will become familiar with the key theories that have helped to shape chiropractic as a profession.

Prerequisite(s): Take CHR-641

CHR-644 Business Entrepreneurship (4 credits)
This four credit graduate level course introduces students to principles of chiropractic office management, important aspects of business planning, and financial considerations necessary to successfully establish and manage chiropractic practice. Students explore external and internal factors impacting their cost-effective service to patients, adherence to sound ethical behavior, and application of sound business principles. The course serves as a vehicle for students to integrate prudent business planning and decision-making in the management of a chiropractic office/ practice.

CHR-645 Soft Tissue Techniques (4 credits)
This course provides the student with a comprehensive evidenced-informed approach to the unique health and wellness concerns of pediatric and female patients.The course will review the developmental milestones of pediatric patients,through a review of examination,assessment,and chiropractic case management protocols.Unique women's health conditions will be reviewed and specific chiropractic case management protocols will be introduced in this course. The course will include didatic PowerPoint presentations,case analysis in an active learning format,and treatment demonstrations.

Prerequisite(s): Take CHR-600L

Corequisite(s): Take CHR-645L

CHR-645L Soft Tissue Techniques Lab (1 credits)
This lab is consistant with material covered in lectures in CHR-645.

Corequisite(s): Take CHR-645

CHR-646 Geriatric & Special Needs Populations (2 credits)
This course will provide students with knowledge and skills necessary for health assessment of the geriatric and special needs patient. Emphasis will be placed on the collection and synthesis of information leading to the development of a comprehensive plan of evaluation and care. Evidence-informed practice concepts related to health promotion,disease prevention, and treatment will be utilized to develop critical thinking and diagnostic reasoning skills.

Prerequisite(s): Take CHR-640 or CHR-720L

CHR-647 Pediatrics & Women's Health (2 credits)
This course provides the student with a comprehensive evidenced-informed approach to the unique health and wellness concerns of pediatric and female patients. The course will review the developmental milestones of pediatric patients,through a review of examination,assessment,and chiropractic case management protocols.Unique women's health conditions will be reviewed and specific chiropractic case management protocols will be introduced in this course. The course will include didatic PowerPoint presentations,case analysis in an active learning format,and treatment demonstrations.

Prerequisite(s): Take CHR-640

CHR-649L Psychomotor Skills Lab (0.5 credits)
This course will begin to prepare students to develop the professional communication and interpersonal skills that are needed to interact with patients,patients' family,and other health care providers in a safe and respectful environment. Topics will expose students to the American Chiropractic Association code of ethics as they apply to patient and the academic setting,current and future modes of health care delivery including interprofessional collaboration,evidence based care models,and patient and doctor safety in clinical practice. Students will begin to understand the necessary personal and professional attributes that are necessary as a healthcare provider with an introduction in the psychomotor skills used as a chiropractor.

CHR-650 Adjustive Techniques I (1 credits)
This course will present contemporary theories of chiropractic science and practice related to the assessment, diagnosis, treatment, and evaluation of spinal dysfunction. Theory of segmental dysfunction, outcome measures of dysfunction, theory of facilitation, and clinical management of spinal dysfunction across the age continuum will be included. The student will be introduced to a cross referencing approach to treatment of the vertebral subluxation complex utilizing the diversified technique, Palmer-Gonstead, orthogonality, and the motion-spatial / fixation concept. The course will review current research related to somatovisceral influences and their associated pathophysiology and neurodystrophy. The clinical laboratory will comprise an integration of biomechanics and physical assessment skills, with emphasis on the spine; a practical review of methods of chiropractic terminology (e.g., listings); and a synthesis of static and motion palpation procedures and techniques. Demonstration and practice sessions will be given, utilizing various adjustive and manipulative interventions for treating subluxation in the pelvic area.

Prerequisite(s): Take CHR-600L

Corequisite(s): Take CHR-650L

CHR-650L Adjustive Techniques I Lab (2 credits)
This course will present contemporary theories of chiropractic science and practice related to the assessment, diagnosis, treatment, and evaluation of spinal dysfunction. Theory of segmental dysfunction, outcome measures of dysfunction, theory of facilitation, and clinical management of spinal dysfunction across the age continuum will be included. The student will be introduced to a cross referencing approach to treatment of the vertebral subluxation complex utilizing the diversified technique, Palmer-Gonstead, orthogonality, and the motion-spatial / fixation concept. The course will review current research related to somatovisceral influences and their associated pathophysiology and neurodystrophy. The clinical laboratory will comprise an integration of biomechanics and physical assessment skills, with emphasis on the spine; a practical review of methods of chiropractic terminology (e.g., listings); and a synthesis of static and motion palpation procedures and techniques. Demonstration and practice sessions will be given, utilizing various adjustive and manipulative interventions for treating subluxation in the pelvic area.

Prerequisite(s): Take CHR-600L

Corequisite(s): Take CHR-650

CHR-651 Adjustive Techniques II (1 credits)
This course will present contemporary theories of chiropractic science and practice related to the assessment diagnosis, treatment, and evaluation of spinal dysfunction. Theory of segmental dysfunction, outcome measures of dysfunction, theory of facilitation, and clinical management of spinal dysfunction across the age continuum will be included. The student will be introduced to a cross referencing approach to treatment of the vertebral subluxation complex utilizing the diversified technique, Palmer-Gonstead, orthogonality, and the motion-spatial / fixation concept. The course will review current research related to somatovisceral influences and their associated pathophysiology and neurodystrophy. The clinical laboratory will comprise an integration of biomechanics and physical assessment skills, with emphasis on the spine; a practical review of methods of chiropractic terminology (e.g., listings); and a synthesis of static and motion palpation procedures and techniques with both dynajust and force plate teaching/ evaluations. Demonstration and practice sessions will be given, utilizing various adjustive and manipulative interventions for treating subluxation in the lumbar and pelvic areas.

Prerequisite(s): Take CHR-650 CHR-650L

Corequisite(s): Take CHR-651L

CHR-651L Adjustive Techniques II Lab (1 credits)
This course will present contemporary theories of chiropractic science and practice related to the assessment diagnosis, treatment, and evaluation of spinal dysfunction. Theory of segmental dysfunction, outcome measures of dysfunction, theory of facilitation, and clinical management of spinal dysfunction across the age continuum will be included.The student will be introduced to a cross referencing approach to treatment of the vertebral subluxation complex utilizing the diversified technique, Palmer-Gonstead, orthogonality, and the motion-spatial / fixation concept. The course will review current research related to somatovisceral influences and their associated pathophysiology and neurodystrophy. The clinical laboratory will comprise an integration of biomechanics and physical assessment skills, with emphasis on the spine; a practical review of methods of chiropractic terminology (e.g., listings); and a synthesis of static and motion palpation procedures and techniques with both dynajust and force plate teaching/ evaluations. Demonstration and practice sessions will be given, utilizing various adjustive and manipulative interventions for treating subluxation in the lumbar and pelvic areas.

Prerequisite(s): Take CHR-650 CHR-650L

Corequisite(s): Take CHR-651

CHR-652 Adjustive Techniques III (1 credits)
This course will present contemporary theories of chiropractic science and practice related to the assessment, diagnosis, treatment, and evaluation of spinal dysfunction. Theory of segmental dysfunction, outcome measures of dysfunction, theory of facilitation, and clinical management of spinal dysfunction across the age continuum will be included. The student will be introduced to a cross referencing approach to treatment of the vertebral subluxation complex utilizing the diversified technique, Palmer-Gonstead, orthogonality, and the motion-spatial / fixation concept. The course will review current research related to somatovisceral influences and their associated pathophysiology and neurodystrophy. The clinical laboratory will comprise an integration of biomechanics and physical assessment skills, with emphasis on the spine; a practical review of methods of chiropractic terminology (e.g., listings); and a synthesis of static and motion palpation procedures and techniques with both dynajust and force plate teaching/ evaluations. Demonstration and practice sessions will be given, utilizing various adjustive and manipulative interventions for treating subluxation in the pelvic, lumbar, and thoracic areas.

Prerequisite(s): Take CHR-651 CHR-651L

Corequisite(s): Take CHR-652L

CHR-652L Adjustive Techniques III Lab (1 credits)
This course will present contemporary theories of chiropractic science and practice related to the assessment, diagnosis, treatment, and evaluation of spinal dysfunction. Theory of segmental dysfunction, outcome measures of dysfunction, theory of facilitation, and clinical management of spinal dysfunction across the age continuum will be included. The student will be introduced to a cross referencing approach to treatment of the vertebral subluxation complex utilizing the diversified technique, Palmer-Gonstead, orthogonality, and the motion-spatial / fixation concept. The course will review current research related to somatovisceral influences and their associated pathophysiology and neurodystrophy. The clinical laboratory will comprise an integration of biomechanics and physical assessment skills, with emphasis on the spine; a practical review of methods of chiropractic terminology (e.g., listings); and a synthesis of static and motion palpation procedures and techniques with both dynajust and force plate teaching/ evaluations. Demonstration and practice sessions will be given, utilizing various adjustive and manipulative interventions for treating subluxation in the pelvic, lumbar, and thoracic areas.

CHR-653 Adjustive Techniques IV (5 credits)
This course will build on the process of assessment, treatment analysis & adjustive techniques of CHR-631, CHR-650, CHR-651, and CHR-652. The course content reflects a synthesis of biomechanics, orthopedic testing, orthopedic diagnosis, and adjustive/ manipulative procedures for the spine and the pelvic region. Emphasis will be placed on examining various spinal conditions, including those conditions resulting from spinal trauma. Additionally, the student will learn about orthotics, taping and soft tissue techniques utilized to treat conditions of the spine across the age continuum. Clinical laboratory experience will be divided into two sections: Section I will emphasize the cervical and thoracic orthopedic tests. All sections will continue with a selective review and practice of various manipulative and adjustive techniques covered in earlier courses with both dynajust and force plate evaluations. The use of orthotic devices, taping, and procedures for treating various spinal conditions will be discussed and demonstrated.

Prerequisite(s): Take CHR-652 CHR-652L

Corequisite(s): Take CHR-653L CHR-655 and CHR-655L

CHR-653L Adjustive Techniques IV Lab (2 credits)
This lab is consistant with material covered in lectures in CHR-653. Clinical laboratory experience will be divided into two sections; section I will emphasize the cervical and thoracic orthopedic tests. All sections will continue with a selective review and practice of various manipulative and adjustive techniques covered in earlier courses with both dynajust and force plate evaluations. The use of orthotic devices,taping,and procedures for treating various spinal conditions will be discussed and demonstrated.

Prerequisite(s): Take CHR-652 CHR-652L

Corequisite(s): Take CHR-653

CHR-655 Adjustive Techniques VI (5 credits)
This course is a continuation of CHR-652. Course content will reflect a synthesis of biomechanics, orthopedic testing, musculoskeletal diagnosis, sports injuries, and adjustive/manipulative procedures across the age continuum with an emphasis on the extra spinal regions of the body. Clinical laboratory experience will be divided into two sections: Section I will emphasize orthopedic tests for the extremities. Section II will cover extremity-adjusting procedures, as well as evaluation and soft tissue methods used for the assessment, diagnosis, treatment, and evaluation for conditions involving the extremities. Additionally, the student will learn practical concepts regarding orthotic devices, taping and casting techniques for various extremity conditions.

Corequisite(s): Take CHR-653 CHR-653L and CHR-655L

CHR-655L Adjustive Techniques VI Lab (2 credits)
This lab is consistant with material covered in lectures in CHR-655. Clinical laboratory experience will be divided into two sections: Section I will emphasize orthopedic tests for the extremities. Section II will cover extremity-adjusting procedures, as well as evaluation and soft tissue methods used for the assessment,diagnosis,treatment,and evaluation for conditions involving the extremities. Additionally,the student will learn practical concepts regarding orthotic devices,taping and casting techniques for various extremity conditions.

Corequisite(s): Take CHR-655

CHR-656 Clinical Neuroscience (4 credits)
An in-depth study of the neuroscience of the central and peripheral nervous systems. Clinical conditions and case studies in neurology will be utilized. Laboratory includes examination of neural specimens. Four lecture hours, and two laboratory hours.

Prerequisite(s): Take CHR-635

Corequisite(s): Take CHR-656L

CHR-656L Clinical Neuroscience Lab (1 credits)
An in-depth study of the neuroscience of the central and peripheral nervous systems. Clinical conditions and case studies in neurology will be utilized. Laboratory includes examination of neural specimens. Four lecture hours, and two laboratory hours.

Prerequisite(s): Take CHR-635

Corequisite(s): Take CHR-656

CHR-657 Applied Neurology (3 credits)
This course is concerned with human neurology, both biochemical and physiologic. Content will focus on the cardinal manifestations of neurological disease; growth and development of the nervous system; the neurology of aging; and the pathology, symptomatology, and diagnostic testing for major categories of neurological disease, including disease of the spinal cord, peripheral nerves and muscles. In addition, the course will include an introduction of related psychiatric disorders, the interpretation of electrodiagnosis, and a review of current research literature and the need for evidence-based research. Laboratory sessions will include demonstration and practice in performing various neurological tests.

Prerequisite(s): Take CHR-656

CHR-657L Applied Neurology Lab (2 credits)
this lab is consistent with material covered in lectures in CHR-657.

Prerequisite(s): Take CHR-656

CHR-661 Diagnostic Imaging I (3 credits)
This course will introduce the student to diagnostic imaging as an assessment tool used in the development of a comprehensive patient profile. The dual focus of this course will be on the physics and processes involved in radiographic techniques and normal radiographic anatomy. The course will provide instruction concerning radiographic physics and processes involved in the use of the x-ray machine including image receptor equipment, factor calculation, and film processing and storage. The effects of ionizing radiation on biological systems, and Federal and state safety guidelines regulating the use of x-rays will be examined. The cost/benefit ratio of utilizing imaging and its relative value as a diagnostic tool will be examined. Radiographic interpretation instruction will include the normal radiological anatomy of the spine, viscera, and the extremities.

Prerequisite(s): Take BIO-639

Corequisite(s): Take CHR-661L

CHR-661L Diagnostic Imaging Lab (0.5 credits)
This lab is consistent with material covered in lectures in CHR-661.

Corequisite(s): Take CHR-661

CHR-662 Diagnostic Imaging II (4 credits)
This course will build on the knowledge gained in Diagnostic Imaging I. Utilizing conventional radiographs, focus will be on recognizing bone pathologies and selected variants of the spine and extremities. Imaging results will be correlated with patient history, physical examination, and laboratory findings. A regional approach will be utilized to explore neoplastic, infectious diseases; metabolic, skeletal dysplasias; hematological and nutritional disorders; as well as degenerative, inflammatory, and metabolic arthritides and trauma. The need for appropriate case management will be emphasized. Laboratory experience will include continuing demonstration and practice of the use of x-ray equipment, positioning techniques, and imaging interpretation for the accurate identification of pathological processes.

Prerequisite(s): Take CHR-661 CHR-661L

Corequisite(s): Take CHR-662L

CHR-662L Diagnostic Imaging II Lab (2 credits)
This course will build on the knowledge gained in Diagnostic Imaging I. Utilizing conventional radiographs, focus will be on recognizing bone pathologies and selected variants of the spine and extremities. Imaging results will be correlated with patient history, physical examination, and laboratory findings. A regional approach will be utilized to explore neoplastic, infectious diseases; metabolic, skeletal dysplasias; hematological and nutritional disorders; as well as degenerative, inflammatory, and metabolic arthritides and trauma. The need for appropriate case management will be emphasized. Laboratory experience will include continuing demonstration and practice of the use of x-ray equipment, positioning techniques, and imaging interpretation for the accurate identification of pathological processes.

Prerequisite(s): Take CHR-661 CHR-661L

Corequisite(s): Take CHR-662

CHR-663 Diagnostic Imaging III (4 credits)
This course will place an emphasis on the importance of correlation of radiographic findings with the patient history, physical examination, and related laboratory findings. The need for case management,including appropriate referral and follow-up for patients experiencing certain medical conditions or pathologies as listed in the syllabus, will be studied.Part 1: The focus of this portion of the course will be the use of advanced specialized imaging techniques with an emphasis on the spine and musculoskeletal system. Topics will include magnetic resonance imaging, computed tomography, myelography, discography, radionuclide imaging, and bone densitometry. Additionally, the course will present information about digital storage and retrieval of radiographic findings and the use of computer-assisted diagnostic programs.Part 2: The focus of this portion of the course will be interpreting diagnostic images of the abdomen with an emphasis on the differentiation between normal and abnormal findings. Content will cover predominantly abdominal calcifications and major diseases affecting the abdominal organs that may be encountered in a chiropractic office.Part 3: The focus of this portion of the course will be interpreting diagnostic images of the chest with an emphasis on the differentiation between normal and abnormal findings. Content will cover the following topics: diseases of the airways; diseases of the chest including cavities, cysts, lesions, and calcification; pulmonary and circulatory diseases; thoracic neoplasms; and generalized radiographic findings of various internal organs.

Prerequisite(s): Take CHR-662 CHR-662L

Corequisite(s): Take CHR-663L

CHR-663L Diagnostic Imaging III Lab (2 credits)
This lab is consistent with material covered in lectures in CHR-663.

Prerequisite(s): Take CHR-662 CHR-662L

Corequisite(s): Take CHR-663

CHR-664 Diagnostic Imaging IV (4 credits)
This capstone course will review and reinforce the knowledge gained in Diagnostic Imaging II. Utilizing conventional radiographs and advanced imaging, focus will be on recognizing bone pathologies and selected variants of the spine and extremities based on a regional anatomic case-based approach. Imaging results will correlate patient history, physical examination, and laboratory findings with neoplastic, infectious, metabolic and dysplastic disorders as well as degenerative, inflammatory, and metabolic arthritis and skeletal injury. The need for a systematic approach to case management will be emphasized.Laboratory experience will include review of many representative cases.

Prerequisite(s): Take CHR-663 CHR-663L

Corequisite(s): Take CHR-664L

CHR-664L Diagnostic Imaging IV Lab (2 credits)
This lab is consistent with material covered in lectures in CHR-664. Laboratory experience will include review of many representative cases.

Prerequisite(s): Take CHR-663 CHR-663L

Corequisite(s): Take CHR-664

CHR-665 Diagnostic Imaging V (2 credits)
This course will introduce the student to radiographic positioning. Instruction will emphasize the optimal procedures in positioning to produce radiographic images that demonstrate radiological anatomy of the spine, viscera, and the extremities. The principles of radiographic positioning and federal and state safety guidelines regulating the use of x-rays will be examined. Laboratory experience includes demonstration of the proper and safe use of equipment and positioning techniques.

Prerequisite(s): Take CHR-661 CHR-661L

Corequisite(s): Take CHR-665L

CHR-665L Diagnostic Imaging V Lab (1 credits)
This lab is consistent with material covered in lectures in CHR-665. Laboratory experience includes demonstration of the proper and safe use of equipment and positioning techniques.

Prerequisite(s): Take CHR-661 CHR-661L

Corequisite(s): Take CHR-665

CHR-670 Professional Communications (2 credits)
This class is an overview of fundamental professional writing as it applies to professional communication. Each week students will participate in active learning through reading,discussion,completing exercises,written assignments, peer editing,and revision. The overall objective of this course is to create/reinforce sound written and oral communication skills in students preparing to become clinicians.

CHR-671L EIP 1: Information Literacy Lab (1 credits)
This laboratory class is a foundation for the Evidence-Informed Practice (EIP) sequence of courses. The course isdesigned to teach students how to use the library,its resources and services. Basic and advanced library research strategies are taught through active learning workshops,exercises and assignments. The emphasis will be on developing the information literacy skills necessary to navigate through the online library databases,web resources,and print materials necessary for health care practitioners to remain current with the best available evidence.

CHR-672 EIP II Resh Meth Design & Stats Intp (3 credits)
This is the second course in the evidence-informed practice (EIP)sequence. The course is a qualitative introduction to the fundamental structure of research. It introduces The different types of research studies,and addresses the basic statistical tools involved in evaluating various research designs. Students will learn how to interpret statistical results in the context of clinical applications. The course prepares students to read and understand biomedical literature,enabling them to be up-to-date on the latest research in their field and allowing them to offer their patients the best evidence-informed care available.

Prerequisite(s): Take CHR-671L

CHR-673 EIP III: Chiro Prin: Evid Inform Pract (3 credits)
This is the third course in the evidence-informed practice (EIP)sequence. This course builds on CHR-672 and will concentrate on concepts of evidence-informed practice with a specific focus on evidence informed chiropractic. EIP is the future of our healthcare system and will drive future best practice in all professions. This course is intended to teach students to better assist the patient through EIP guided reasonable and rational decisions about health care.

Prerequisite(s): Take CHR-672

CHR-674L EIP Iv: Journal Club Seminar (1 credits)
This seminar lab course is the fourth in the evidence-informed practice (EIP)sequence. This is an interactive course designed to sharpen the students' research literacy and evidence-informed practice (EIP)skills. Applied EIP is emphasized,including questioning,researching,analyzing and communicating clinically relevant information. The overall objective of this course is to create sound EIP habits in students,preparing to become doctors of chiropractic. Students will research,develop,and present a journal club of clinically relevant,important,and applicable biomedical research literature to a small group of peers and practicing clinical mentors and professionals. Students will apply key EIP skills(asking,accessing,appraising,applying, and assessing) along with the concept of critical appraisal fo the literature. Emphasis is placed on how the research and clinical literature impacts clinical decisions in chiropractic practice.

Prerequisite(s): Take CHR-673

CHR-675 EIP V: Evidence-Informed Clinical Mgmt (4 credits)
This capstone lecture course is the fifth in the evidence-informed practice (EIP) sequence of courses. It provides the student with an understanding of the principles and practices of EIP and its importance in patient-centered care. The course reflects a synthesis of all prerequisite courses in the chiropractic program and prepares the student to implement evidence-informed chiropractic in primary care model. Emphasis will be placed on the application of patient centered,evidence-informed best practice protocols, and the use of integrative clinical management strategies to improve health outcomes. The student will learn effective communication and documentation for a wide range of healthcare related activities which include patient care,professional communication,health education,record keeping,and reporting.

Prerequisite(s): Take CHR-653 CHR-653L CHR-674L

Corequisite(s): Take CHR-675L

CHR-675L Eip V: Evidence-Informed Clin Mgmt Lab (1.5 credits)
This lab accompanies CHR-675 Capstone course.

Prerequisite(s): Take CHR-653 CHR-653L CHR-674L

Corequisite(s): Take CHR-675

CHR-676L Introduction to Clinical Laboratory (1.5 credits)
This course serves as introduction to the clinic setting and initial training in electronic health records in the context of acquiring and documenting a comprehensive medical history and examination findings. The dual focus of this course will be on integration of the components of a history into a patient's medical record and on developing an efficient process flow. This course will provide instruction to utilize electronic health records (EHR) in compliance with the industry-standard for documentation,billing and coding. Course content and format will also reinforce previously learned history taking,physical and orthopedic examination skills. Students will learn and apply clinic procedures and protocols while treating chiropractic students to ensure success in the outpatient clinical setting.

CHR-677 EIP V: Evidence-Informed NMS Clinical Management Capstone Lecture (3 credits)
This capstone lecture course is the fifth in the evidence-informed practice (EIP) sequence of courses. It provides the student with an understanding of the EIP and its importance in patient-centered care. The course reflects a synthesis of all prerequisite courses in the chiropractic program and prepares the student to implement evidence-informed chiropractic practice to a primary care model. Emphasis will be placed on the application of patient centered, evidence-informed best practice protocols, and the use of integrative clinical management strategies to improve patient outcomes. The student will learn effective communication and documentation for a wide range of healthcare related activities which include patient care, professional communication, health education, record keeping, and reporting.

Prerequisite(s): Take CHR-712

Corequisite(s): Take CHR-677L

CHR-677L Evidence Informed Practice V: NMS Case Management Capstone Lab (0.5 credits)
This laboratory course accompanies the EIP V capstone course, the fifth in the evidence-informed practice (EIP) sequence of courses. It provides the student with an opportunity to apply the principles of EIP and emphasizes its importance in patient-centered health care. The course reflects a synthesis of all prerequisite courses in the chiropractic program and prepares the student to implement evidence-informed chiropractic practice to a primary care model. Emphasis will be placed on the application of patient centered, evidence-informed best practice protocols, and the use of integrative clinical management strategies that improve health outcomes.

Corequisite(s): Take CHR-677

CHR-679 Special Topics (2 credits)

CHR-679L Special Topics Lab (0 credits)

CHR-700L Static Palpation Lab (1 credits)
Students will be introduced to an evidence-based model of evaluation. Manipulation terminology and basic methods (static palpation) of chiropractic evaluation will be covered in this lab. Clinical laboratory sessions will comprise instruction, demonstration and practice of chiropractic evaluation techniques including postural evaluation, spinal and extremity landmark locations. The student will develop an awareness and skills in the areas of palpation, doctor-patient relationship, communication, and proper ergonomics.

CHR-701L Spinal Motion Palpation Lab (0.5 credits)
This course will prepare students to develop their motion palpation skills that are an integral component used to assess normal and abnormal structural, neurological and functional articular relationships within the spine. The students will begin to evaluate the clinical indications and rationale for selecting a chiropractic adjustment/manipulation. This course will provide students exposure to identifying normal joint motion and segmental joint dysfunction within the spine. Students will begin to use motion palpation of the spine to as a method of analysis which will be utilized in future technique courses.

CHR-702L Thoracic Technique Lab (1 credits)
This course will present current methods of chiropractic adjustment/manipulation as it relates to the evaluation, diagnosis, and treatment of thoracic joint and neurophysiologic dysfunction across the age continuum. The student will reinforce content from prerequisite courses cross- referencing adjustment/manipulation treatments.

Prerequisite(s): Take BIO-639 CHR-701L

CHR-703L Lumbopelvic Technique Lab (1 credits)
This course will present current methods of chiropractic adjustment/manipulation as it relates to the evaluation, diagnosis, and treatment of lumbar and pelvic joints and neurophysiologic dysfunction across the age continuum. The student will reinforce content from prerequisite courses cross- referencing adjustment/manipulation treatments.

Prerequisite(s): Take CHR-702L

Corequisite(s): Take CHR-710

CHR-704L Lower Extremity Technique Lab (0.5 credits)
This course will present current methods of chiropractic adjustment/manipulation as it relates to the evaluation, diagnosis, and treatment of the lower extremities and neurophysiologic dysfunction across the age continuum. The student will reinforce content from prerequisite courses cross- referencing adjustment/manipulation treatments.

Prerequisite(s): Take CHR-702L

CHR-705L Upper Extremity Technique Lab (1 credits)
This course will present current methods of chiropractic adjustment/manipulation as it relates to the evaluation, diagnosis, and treatment of the upper extremities and neurophysiologic dysfunction across the age continuum. The student will reinforce content from prerequisite courses cross- referencing adjustment/manipulation treatments.

Prerequisite(s): Take CHR-709L CHR-711L

Corequisite(s): Take CHR-712L

CHR-706L Cervical Technique Lab (1.5 credits)
This course will present current methods of chiropractic adjustment/manipulation as it relates to the evaluation, diagnosis, and treatment of cervical joint and neurophysiologic dysfunction across the age continuum. The student will reinforce content from prerequisite courses cross-referencing adjustment/manipulation treatments.

Prerequisite(s): Take CHR-711

Corequisite(s): Take CHR-705L

CHR-707L Flexion Distraction Technique Lab (1 credits)
This course will a laboratory course that combines instrument - assisted Cox Flexion Distraction Decompression Adjusting® with the use of nutrition, modalities, and rehabilitation exercises to treat pain in the spine and extremities. Students will demonstrate a basic level of competence in patient assessment and treatment using Cox protocols. Topics include types of disc lesions, spinal pathologies, treatment methods for radicular vs. non-radicular pain. Students will understand the mechanism of Cox Technique and how to implement within a spine care treatment model.

Prerequisite(s): Take CHR-710 CHR-711

Corequisite(s): Take CHR-712

CHR-709L Motion Palpation Extremity Lab (0.5 credits)
This course will begin to prepare students to develop their motion palpation skills that are an integral component used to assess normal and abnormal structural, neurological and functional articular relationships within the extremities. The students will begin to evaluate the clinical indications and rationale for selecting a chiropractic adjustment/manipulation. Topics will provide students exposure to identifying normal joint motion and segmental joint dysfunction within the extremities. Students will begin to use motion palpation as a method of analysis which will be utilized in future technique courses.

Prerequisite(s): Take CHR-649L CHR-700L CHR-701L

Corequisite(s): Take CHR-710

CHR-710 NMS I Lumbopelvic Conditions (1 credits)
This course will begin to prepare students to develop their clinical reasoning skills which are necessary to perform proper assessment and diagnosis of patients. This is the first in a series of courses designed to develop the process of data gathering and interpretation, hypothesis generation and testing of diagnostic strategies. This course will cover musculoskeletal conditions associated with the lumbar and pelvic regions with discussion on somatic visceral conditions. Students will learn orthopedic tests/signs for the lumbar and pelvic regions with an emphasis on an evidence-based method of evaluation. Students will synthesize the information to understand evidence-based care models for the lumbar and pelvic regions.

Prerequisite(s): Take CHR-702L

CHR-710L NMS I Lumbopelvic Lab (0.5 credits)
This course will begin to prepare students to develop their clinical reasoning skills which are necessary to perform proper assessment and diagnosis of patients. Students will begin data gathering, interpretation, hypothesis generation and testing, and critical evaluation of diagnostic strategies. Topics include musculoskeletal conditions associated with lumbar and pelvic conditions. Students will learn and perform orthopedic tests/signs for the lumbar and pelvic regions with an emphasis on an evidence-based method of evaluation.

Corequisite(s): Take CHR-710

CHR-711 NMS II Cervical and Thoracic Conditions (2 credits)
This course will prepare students to develop their clinical reasoning skills which are necessary to perform proper assessment and diagnosis of patients. This is the second in a series of courses designed to develop the process of data gathering and interpretation, hypothesis generation and testing of diagnostic strategies. Topics include musculoskeletal conditions associated with the cervical and thoracic regions with discussion on somatic visceral conditions. Students will learn orthopedic tests/signs for the cervical and thoracic regions with an emphasis on an evidence-based method of evaluation. Students will synthesize the information to understand evidence-based care models for the cervical and thoracic regions.

Prerequisite(s): Take CHR-710

Corequisite(s): Take CHR-711L

CHR-711L NMS II Cervical and Thoracic Lab (0.5 credits)
This course will begin to prepare students to develop their clinical reasoning skills which are necessary to perform proper assessment and diagnosis of patients. This is the second in a series of courses designed to begin the process of data gathering and interpretation, hypothesis generation and testing of diagnostic strategies. Topics include musculoskeletal conditions associated with the cervical and thoracic regions with discussion on somatic visceral conditions. Students will learn orthopedic tests/signs for the cervical and thoracic regions with an emphasis on an evidence-based method of evaluation. Students will synthesize the information to understand evidence-based care models for the cervical and thoracic regions.

CHR-712 NMS III Extremity Conditions (2 credits)
This course will to prepare students to develop their clinical reasoning skills which are necessary to perform proper assessment and diagnosis of patients. Students will develop skills in gathering, interpretation, hypothesis generation and testing, and critical evaluation of diagnostic strategies. Topics include musculoskeletal conditions associated with the upper and lower extremities with discussion on somatic visceral conditions. Students will learn orthopedic tests/signs for the upper and lower extremities with an emphasis on an evidence-based method of evaluation. Students will synthesize the information to understand evidence-based care models for the upper and lower extremities.

Prerequisite(s): Take CHR-711

Corequisite(s): Take CHR-712L

CHR-712L NMS III Extremity Conditions Lab (0.5 credits)
This course will prepare students to develop their clinical reasoning skills which are necessary to perform proper assessment and diagnosis of patients. Students will develop data gathering, interpretation, hypothesis generation and testing, and critical evaluation of diagnostic strategies. Topics include musculoskeletal conditions associated with the upper and lower extremities. Students will learn and perform orthopedic tests/signs for the upper and lower extremities with an emphasis on an evidence-based method of evaluation.

Corequisite(s): Take CHR-712

CHR-713L Soft Tissue Technique Lab (0.5 credits)
This lab course will allow students to continue to develop their soft tissue palpation and treatment skills. Topics will include soft tissue assessment and various treatment techniques commonly utilized in chiropractic practice.

Prerequisite(s): Take BIO-639 CHR-702L

CHR-715 Passive Rehabilitation Care (2 credits)
During this course students will learn about passive modalities for patient care. Students will analyze physiologic responses to therapeutic modalities and interventions to evaluate their effectiveness as therapeutic agents. Indications and contraindications are reviewed. Theories and methods of a patient centered approach will be employed in the management of conditions. The progress of therapeutic benefit will be recognized by clinical evaluation and functional indexes. This course will emphasize evidence methodology and will introduce students to record keeping when applying passive modalities.

Prerequisite(s): Take CHR-710

Corequisite(s): Take CHR-715L

CHR-715L Passive Rehabilitation Care Lab (1 credits)
During this lab students will apply passive modalities for patient care. Students will analyze physiologic responses to therapeutic modalities and interventions to evaluate their effectiveness as therapeutic agents. Indications and contraindications are reviewed. The progress of therapeutic benefit will be recognized by clinical evaluation and functional indexes. This lab will emphasize evidence methodology and will introduce students to record keeping when applying passive modalities.

Corequisite(s): Take CHR-715

CHR-716 Active Rehabilitation of the Spine (1.5 credits)
Students in this course learn the contemporary use of active care for the rehabilitation and functional restoration of the spine. The course is taught in a case-based format, including information for planning, recommending and monitoring active care programs according to a regional approach. Students also learn the indications and contraindications for active care. Students develop an understanding of the chiropractor's role in functional recovery as it pertains to vocational and disability management.

Prerequisite(s): Take CHR-710 CHR-701L CHR-713L

Corequisite(s): Take CHR-716L

CHR-716L Active Rehabilitation Spine Care Lab (2 credits)
Students in this course learn the contemporary use of active care for the rehabilitation and functional restoration of the spine. The course is taught in a case-based format, including information for planning, recommending and monitoring active care programs according to a regional approach. Students also learn the indications and contraindications for active care. Students develop an understanding of the chiropractor's role in functional recovery as it pertains to vocational and disability management.

Corequisite(s): Take CHR-716

CHR-717 Active Rehabilitation Care Extremities (2 credits)
Students in this course learn the contemporary use of active care for the rehabilitation and functional restoration of the extremities. The course is taught in a case-based format, including information for planning, recommending and monitoring active care programs according to a regional approach. Students also learn the indications and contraindications for active care. Students develop an understanding of the chiropractor's role in functional recovery as it pertains to vocational and disability management.

Prerequisite(s): Take CHR-716 CHR-716L CHR-711 CHR-711L

Corequisite(s): Take CHR-717L

CHR-717L Active Rehabilitation Care Extremities Lab (1 credits)
Students in this course learn the contemporary use of active care for the rehabilitation and functional restoration of the extremities. The course is taught in a case-based format, including information for planning, recommending and monitoring active care programs according to a regional approach. Students also learn the indications and contraindications for active care. Students develop an understanding of the chiropractor's role in functional recovery as it pertains to vocational and disability management.

Corequisite(s): Take CHR-717

CHR-720L Evaluation and Management History and Physical Exam Lab (1 credits)
This laboratory course is the first of the evaluation and management sequence and will teach students the proper method and documentation of performing a comprehensive patient history. Student will learn the proper use of standard medical equipment.

Prerequisite(s): Take BIO-530L

CHR-721 Evaluation and Management of Eyes, Ears, Nose and Throat Conditions (2 credits)
This course focuses on the evaluation, differential diagnosis, and management of common conditions involving the eyes, ears, nose and throat. (EENT) Synthesis of history and physical exam data along with laboratory and other advanced testing will be applied to formulate a diagnosis of common EENT conditions. This course will expose students to treatment options to formulate a management plan inclusive of natural therapy in the form of diet, exercise, lifestyle changes, spinal manipulation, and other rehabilitative procedures.

Prerequisite(s): Take BIO-639 BIO-660 CHR-720L

CHR-721L Evaluation and Management of Eyes, Ears, Nose and Throat Conditions Lab (1 credits)
This laboratory course will reinforce the material taught in the EENT lecture and provide practical application by reinforcing history taking skills through application to the eyes, ears, nose and throat system. Students will also develop skills in physical examination procedures as well as the use of laboratory and other advanced testing.

Prerequisite(s): Take CHR-720L BIO-639

Corequisite(s): Take CHR-721

CHR-722 Evaluation and Management of Cardiorespiratory Conditions (2 credits)
This course focuses on the evaluation, differential diagnosis, and management of common conditions involving the cardiorespiratory systems. Synthesis of history and physical exam data along with laboratory and other advanced testing will be applied to formulate a diagnosis of common cardiorespiratory conditions. This course will expose students to treatment options to formulate a management plan inclusive of nutritional therapy in the form of diet, exercise, lifestyle changes, spinal manipulation, and other rehabilitative procedures.

Prerequisite(s): Take CHR-720L

Corequisite(s): Take CHR-722L

CHR-722L Evaluation and Management of Cardiorespiratory Conditions Lab (0.5 credits)
This laboratory course will reinforce the material taught in the cardiorespiratory lecture and provide practical application by reinforcing history taking skills through application to the eyes, ears, nose and throat system. Students will also develop skills in physical examination procedures of the cardiac and respiratory systems as well as the use of laboratory and other advanced testing.

Corequisite(s): Take CHR-722

CHR-723 Evaluation and Management of Neurological Conditions Capstone (3.5 credits)
This course serves as the neurologic capstone course, focusing on the differential diagnosis of neurologic illness; the course is reviews and clinically applies human neurology from biochemical, physiologic, and pathologic perspective. The content will focus on the primary manifestations of neurological disease through investigating disorders across the neuraxis. Identification of the level of the neurologic lesion involves classifying the symptomatology, and performing the correct diagnostic testing for the major categories of neurological disease. The students will synthesize the characteristics of illnesses they have learned in previous courses, to arrive at the diagnosis and treatment plan for the patient. This course covers disorders of the cerebral cortex, brainstem, spinal cord and peripheral nerves. In addition, the course will include the interpretation of electrodiagnosis, and a review of applications of current evidence-based literature.

Prerequisite(s): Take CHR-735 CHR-736

Corequisite(s): Take CHR-723L

CHR-723L Evaluation and Management of Clinical Neurologic Conditions Capstone Lab (1.5 credits)
This course serves as the neurologic capstone course, focusing on the differential diagnosis of neurologic illness, the course is concerned with human neurology, both biochemical and physiologic. The content will focus on the primary manifestations of neurological disease through investigating disorders across the neuraxis. Identification of the level of the neurologic lesion involves classifying the symptomatology, and diagnostic testing for the major categories of neurological disease. The students will synthesize the characteristics of illnesses they have learned in previous courses, to arrive at the diagnosis and treatment plan for the patient. This course covers disorders of the cerebral cortex, brainstem, spinal cord and peripheral nerves. In addition, the course will include the interpretation of electrodiagnosis, and a review of current research literature and evidence-based research.

Corequisite(s): Take CHR-723

CHR-724 Evaluation and Management: Emergency Procedures (1 credits)
This course shall prepare the chiropractic student to appropriately evaluate and provide first responder procedures for a variety of medical emergencies including scene evaluation. This course will discuss the general training and goals of an athletic team's medical staff, as well as members of the emergency medical services team, to better prepare the chiropractic student to collaborate with these individuals.

Prerequisite(s): Take CHR-715 CHR-716

Corequisite(s): Take CHR-724L

CHR-724L Evaluation and Management: Emergency Procedures Lab (1 credits)
This course shall prepare the chiropractic student to appropriately evaluate and provide first responder procedures for a variety of medical emergencies. This course will prepare the chiropractic student as a first responder to appropriately evaluate the safety of the scene of the emergency, clinically evaluate the injured patient's injuries and stabilize the patient utilizing appropriate first responder protocols. Additionally, this course will discuss the general training and goals of an athletic team's medical staff, as well as members of the emergency medical services team, to better prepare the chiropractic student to collaborate with these individuals.

Corequisite(s): Take CHR-724

CHR-725 Evaluation and Management of Gastrointestinal and Genitourinary Conditions (2 credits)
This course focuses on the evaluation, differential diagnosis, and management of common conditions involving the gastrointestinal and genitourinary tracts (GI/GU). Students will also develop skills in physical examination procedures as well as the use of laboratory and other advanced testing. Synthesis of history and physical exam data along with laboratory and advanced testing will be applied to formulate a diagnosis of common GI/GU conditions. The course will expose students to treatment options to formulate a management plan inclusive of nutritional therapy in the form of diet, exercise, lifestyle changes, spinal manipulation, and other rehabilitative procedures.

Prerequisite(s): Take BIO-639 CHR-720L

Corequisite(s): Take CHR-725L

CHR-725L Evaluation and Management of Gastro/Intestinal and Genital/Urinary Conditions Lab (0.5 credits)
This laboratory course will reinforce the material taught in the gastro/intestinal and genital/urinary (GI/GU) lecture and provide practical application by reinforcing history taking skills through application to the gastro/intestinal and genital/urinary system. Students will also develop skills in physical examination procedures as well as the use of laboratory and other advanced testing.

Corequisite(s): Take CHR-725

CHR-726 Evaluation and Management of Obstetrics and Gynecology (2 credits)
This course focuses on the evaluation, differential diagnosis, and management of common conditions involving the female patient. Synthesis of both history and physical exam data to formulate a diagnosis of common gynecological and pregnancy conditions will be emphasized. The course will expose students to treatment options to formulate a management plan inclusive of natural therapy in the form of diet, exercise, lifestyle changes, spinal manipulation, and other rehabilitative procedures.

Prerequisite(s): Take BIO-639 CHR-720L NTR-611

Corequisite(s): Take CHR-726L

CHR-726L Evaluation and Management of Obstetrics and Gynecological Conditions Lab (0.5 credits)
This laboratory course will reinforce the material taught in the Obstetrics and Gynecology lecture and provide practical application by reinforcing history taking skills through application to the female reproductive system. Students will also develop skills in physical examination procedures of the female reproductive systems as well as the use of laboratory and other advanced testing.

Corequisite(s): Take CHR-726

CHR-727 Evaluation and Management of Pediatric Conditions (2 credits)
This lecture course provides the student with a comprehensive evidenced-informed approach to the unique health and wellness concerns of pediatric patients. The course will review the developmental milestones of pediatric patients, through a review of examination, assessment, and chiropractic case management protocols. The course will include didactic presentations, case analysis in an active learning format, and treatment demonstrations.

Prerequisite(s): Take BIO-639 CHR-720L

CHR-729 Evaluation and Management of Athletic Injuries (2 credits)
This course will prepare students to perform advanced assessment and management techniques on various orthopedic and sport related injuries. Emphasis will be placed on enhancing student knowledge of mechanisms of injuries related to sports specific activities, with focus on faulty biomechanics, muscular imbalances and improper training. This course will discuss proper referral for diagnostic evaluation or surgical intervention as it relates to the management of injuries. Emphasis will be placed on evaluation of acute and chronic injuries relating to the appendicular and axial skeleton, with emphasis on head injuries occurring in sports. This course will discuss basic techniques appropriate for the prevention of sports related injuries.

Prerequisite(s): Take CHR-724

CHR-730 Evaluation and Management Capstone (2 credits)
This course is the culmination of the Evaluation and Management (E&M) curriculum and is designed to provide a mastery of content from the previous E&M course to facilitate the integration and synthesis of content through critical thinking needed for patient diagnosis and management.

Corequisite(s): Take CHR-730L

CHR-730L Evaluation and Management Capstone Lab (1 credits)
This laboratory course is the culmination of the Evaluation and Management (E&M) lab curriculum and is designed to provide a mastery of content and skills from the previous E&M lab courses to facilitate through critical thinking needed for patient diagnosis and management.

Corequisite(s): Take CHR-730

CHR-731 Professional Development I: Ethics & Law (1 credits)
This course explores the legal, policy and ethical issues encountered by students in chiropractic education and after graduation as a practitioner in the continuously evolving health care system. Topics will include academic misconduct in the classroom, ethical conduct and laws governing a student intern and ethical conduct and laws governing a Doctor of Chiropractic in the practice of chiropractic.

CHR-732 Professional Development II: Billing & Coding (3 credits)
This three-credit graduate level course introduces students to principles of chiropractic billing, coding and documentation needed to be successful in the clinic phase of the chiropractic program as well as after graduation. Students will learn proper methods of billing for chiropractic services which include the use of ICD-10 and CPT coding to be compliant with regulatory guidelines. Students will learn patient care documentation that will serve to support the need for care as well as substantiate services performed and billed.

CHR-733 Professional Development III: Starting a Chiropractic Practice (2 credits)
This graduate level course is the second in the business development sequence and introduces students to the principles and practices of starting a successful chiropractic practice to include; determining an appropriate business location by analyzing locations and area demographics, creating an organized business plan, selecting furnishings and equipment, marketing the business through networking with other health care providers, communicating with the patients, and developing an internal and external plan and identifying financial resources available for business startup.

CHR-734 Professional Development IV Managing a Chiropractic Practice Capstone (2 credits)
This graduate level course is third in the business development sequence and introduces students to the principles and practices of managing a successful chiropractic practice to include; the use of office management software, financial analysis of the practice, goal setting for personal and professional development, understanding local, state and federal tax codes.

Prerequisite(s): Take CHR-732 CHR-733

CHR-735 Clinical Neurology I Spine and PNS (4 credits)
This course involves an in-depth study of the clinical anatomy of the spine, spinal cord, brachial plexus, upper extremity peripheral nerves, lumbar and lumbosacral plexus, lower extremity peripheral nerves and autonomic nerve, and plexus. It also includes an in-depth study of the anatomy of the spinal cord and tracts, with emphasis on cross-sectional anatomy and unique characteristics of the different spinal regions. Laboratory sessions focus on the vertebrae and spinal cord reinforce all lecture topics by examining cadaveric and microscopic specimens.

Prerequisite(s): Take BIO-620

Corequisite(s): Take CHR-735L

CHR-735L Clinical Neurology I Spine and PNS Lab (1 credits)
This is a laboratory that supports the lecture course by applying the information learned to anatomical models and cadavers. The course explores individual peripheral nerves and plexuses of the extremities. Anatomy of the autonomic nerves and spinal column will also be explored.

Corequisite(s): Take CHR-735

CHR-736 Clinical Neurology II Central Nervous System (4 credits)
An in-depth study of the central nervous system, beginning at the spinal cord and brainstem ranging to the cortex and related structures will be examined in this course. Basic clinical neuroscience concepts of the central and peripheral nervous systems will be correlated with neuroanatomy regionally. Clinical conditions and case studies in neurology will be utilized to enhance learning and lead to a deeper appreciation of the significance of the central nervous system on body functions.

Prerequisite(s): Take CHR-735

Corequisite(s): Take CHR-736L

CHR-736L Clinical Neurology II Central Nervous System Lab (1 credits)
This course provides an in-depth study of the neuroscience of the central and peripheral nervous systems. Clinical conditions and case studies in neurology will be utilized and basic neurologic tests will be demonstrated and practiced. During this laboratory course students will apply knowledge and skills gained in the lecture course by examining the neuroanatomy specimens. They will also participate in solving clinical case scenarios of neuroanatomical lesions designed to strengthen connections between learning anatomy and applying clinical reasoning for problem solving.

Corequisite(s): Take CHR-736

CHR-737 Pharmacology (4 credits)
This is the first course in a two-course sequence. Pharmacology is the study of drug actions on biological systems. This course will present a wide range of therapeutic drugs commonly encountered in modern medical practice. Additionally, basic concepts of receptor binding and interactions, pharmacodynamics, pharmacokinetics, and autonomic nervous system function in presence of drugs will be reviewed.

CHR-740 Public Health (2 credits)
This course is focused on the discussion of different definitions and descriptions on what constitutes public health, the contributions and value of public health, and the interaction between chiropractic and public health. Prevention and wellness are discussed, along with examples as to how basic public health concepts should be incorporated into the development of a comprehensive chiropractic plan of care. Topics include the impact of public health by environmental factors, food and nutrition, infectious diseases, chronic diseases, physical fitness, musculoskeletal conditions, accidents and physical injuries, and other lifestyle factors. The importance of incorporating health teaching and counseling related to disease prevention and health promotion into the chiropractic plan of care and on understanding public health as a personal responsibility are stressed. The need for more integration of chiropractic into the mainstream public health system is discussed.

CHR-741 Chiropractic Principles: A Historical Foundation (1 credits)
This course will introduce the student to the historical foundations of the chiropractic profession. Students will become familiar with key individuals and events that positively impacted and shaped chiropractic as a profession. The student will examine the historical relationship with other professions.

CHR-742 Chiropractic Practice: Science of Chiropractic Theories (1 credits)
This course is the second course in the Chiropractic Principles and Practices sequence and will introduce the student to the historical evolution of the theories of the chiropractic manipulation, use of modalities and clinical application of selected examination and diagnostic instruments in the practice of chiropractic. The student will be exposed to various practice settings to practice chiropractic.

Prerequisite(s): Take CHR-741

CHR-743 Science of Chiropractic Clinical Applications (1 credits)
This course will focus on the science of chiropractic as it relates to chiropractic technique and evidence-based research. Students will be introduced to the most highly utilized chiropractic techniques and research that supports their clinical application. Basic science concepts of manual therapy will be introduced. The students will become familiar with the key techniques that have shaped the chiropractic profession and current research that is redefining their clinical applications.

Prerequisite(s): Take CHR-742

CHR-750 Student Clinic (3 credits)
This course serves as an introduction to the clinic setting and initial clinical training in electronic health records in the context of acquiring and documenting a comprehensive medical history and examination findings. The dual focus of this course will be on integration of the components of a history into a patient's medical record and on developing an efficient process flow. This course will provide instruction to utilize electronic health records (EHR) in compliance with the industry-standard for documentation, billing and coding. Course content and format will also reinforce previously learned history taking, physical and orthopedic examination skills. Students will learn and apply clinic procedures and protocols while treating chiropractic students to ensure success in the outpatient clinical setting.

Corequisite(s): Take CHR-677

CHR-751 Clinical Internship I (7 credits)
This course, through patient care of different ages and cultural background encounters, will serve to apply the knowledge and skills taught in the classroom to evidence-based patient care in the D'Youville chiropractic clinic system. Under the supervision of licensed faculty clinicians, students will perform case appropriate histories, physical exams, chiropractic exams, identify further diagnostic testing and patient co-morbidities to determine an evidenced-based patient care plan. Students will monitor the effectiveness of care through outcome assessment tools and re-examinations. Students will identify the need for external health records, the need for referral/collaborative care or immediate emergent care. An emphasis will be placed on prevention, maintenance, performance and/or restoration of a patient's health and wellness through spinal manipulation, diet and nutritional support, exercise, lifestyle changes, activities of daily living and work modifications. Opportunities will be provided to observe/interact with health care practitioners of other health disciplines.

CHR-752 Clinical Internship II (7 credits)
This course, through patient care of different ages and cultural background encounters, will serve to apply the knowledge and skills taught in the classroom to evidence based patient care in the D'Youville chiropractic clinic system. Under the supervision of licensed faculty clinicians, students will perform case appropriate histories, physical exams, chiropractic exams, identify further diagnostic testing and patient co-morbidities to determine an evidenced-based patient care plan. Students will monitor the effectiveness of care through outcome assessment tools and re-examinations. Students will identify the need for external health records, the need for referral/collaborative care or immediate emergent care. An emphasis will be placed on prevention, maintenance, performance and/or restoration of a patient's health and wellness through spinal manipulation, diet and nutritional support, exercise, lifestyle changes, activities of daily living and work modifications. Opportunities will be provided to observe/interact with health care practitioners of other health disciplines.

Prerequisite(s): Take CHR-751

CHR-753 Clinical Internship III (7 credits)
This course is the final course in the clinical internship sequence. The focus on patient care will continue; however, preceptorship hours may be completed in a variety of community-based chiropractic clinics under the supervision of qualified doctor of chiropractic or remain in the D'Youville clinic system and continue to be supervised by D'Youville clinical faculty.

Prerequisite(s): Take CHR-751 CHR-752