# CLINICAL ORTHOPAEDICS (MCO)

# MCO 6350 Introduction to Orthopaedic Clinical Evaluation and Procedures (3)

This course introduces advanced principles of orthopaedic evaluation, diagnosis, and treatment necessary for regular clinical application, applying evidence-based medicine to the management of orthopaedic patients, and focusing on extremity anatomy, biomechanical pathology, physical examination, diagnostic imaging, and rehabilitation methods.

#### MCO 6351 Evidence Based Orthopaedic Care (3)

This course introduces the application of evidence-based medicine to the management of orthopaedic complaints, focusing on assessing current peer-reviewed journal articles for sound research design and valid conclusions so as to apply lessons learned from the literature to individual patients and patient populations.

# MCO 6352 Orthopaedic Evaluation and Management of Spine Disorders (3)

This course introduces advanced principles of orthopaedic evaluation, diagnosis, and treatment necessary for regular clinical application, applying evidence-based medicine to the management of orthopaedic spine complaints, and focusing on spine anatomy, biomechanical pathology, physical examination, diagnostic imaging, and classification of common select fractures of the spine.

#### MCO 6353 Evaluation and Management of Neurologic Disorders (3)

This course introduces advanced principles of orthopaedic evaluation, diagnosis and treatment necessary for regular clinical application, applying evidence-based medicine to the management of neurologic complaints, and focusing on spine and head anatomy, biomechanical pathology, physical examination, diagnostic imaging, laboratory studies, and classification of common select fractures of the head and spine.

# MCO 6354 Evaluation and Management of Pediatric Orthopaedic Disorders (3)

This course introduces advanced principles of orthopaedic evaluation, diagnosis, and treatment necessary for regular clinical application, applying evidence-based medicine to the management of pediatric orthopaedic complaints, and focusing on general anatomy, biomechanical pathology, physical examination, diagnostic imaging, laboratory studies, congenital disorders, and classification of pediatric fractures.

# MCO 6355 Advanced Orthopaedic Clinical Evaluation and Procedures (3)

This course furthers critical principles of orthopaedic evaluation, diagnosis, and treatment necessary for regular clinical application, applying evidence-based medicine to the management of orthopaedic patients, and focusing on extremity anatomy, biomechanical pathology, physical examination, diagnostic imaging, and rehabilitation methods.

# MCO 6356 Techniques for Medical Research Presentation (3) Pre-requisite(s): CITI training only

This course introduces various techniques for medical research presentation. It takes information obtained in developing a high-quality clinical research project, demographic and outcome measure data, and statistical analysis, and generates oral and written products for presentation at local and national venues.

#### MCO 6402 Orthopaedic Trauma Rotation (4)

This is a two-month clinical and surgical rotation on service with a fellowship-trained orthopaedic traumatologist and a team of surgical residents.

# MCO 6410 Introduction to Upper Extremity Sports Injury Management (4)

This course introduces advanced principles of orthopaedic evaluation, diagnosis, and treatment necessary for regular clinical application, applying evidence-based medicine to the management of patient athletes, and focusing on upper extremity anatomy, biomechanical pathology, physical examination, diagnostic imaging, and rehabilitation methods.

# MCO 6411 Introduction to Lower Extremity Sports Injury Management (4)

This course introduces advanced principles of orthopaedic evaluation, diagnosis, and treatment necessary for regular clinical application, applying evidence-based medicine to the management of patient athletes, and focusing on lower extremity anatomy, biomechanical pathology, physical examination, diagnostic imaging, and rehabilitation methods.

# MCO 6412 Evaluation and Management of Hand and Elbow Disorders (4)

This course introduces advanced principles of orthopaedic evaluation, diagnosis, and treatment necessary for regular clinical application; applies evidence-based medicine to the management of orthopaedic upper extremity complaints; and focuses on microsurgery, upper extremity anatomy, biomechanical pathology, physical examination, diagnostic imaging, and classification of common select fractures and dislocations of the upper extremity.

#### MCO 6413 Evaluation and Management of Foot and Ankle Disorders (4)

This course introduces advanced principles of orthopaedic evaluation, diagnosis, and treatment necessary for regular clinical application, applying evidence-based medicine to the management of orthopaedic complaints, and focusing on lower extremity anatomy, biomechanical pathology, physical examination, diagnostic imaging, and classification of common select fractures and dislocations of the leg, ankle, and foot.

#### MCO 6414 Evaluation and Management of Complex Wounds (4)

This course introduces advanced principles of orthopaedic evaluation, diagnosis, and treatment necessary for regular clinical application, applying evidence-based medicine to the management of patients with complex wounds., and focusing on general anatomy, biochemistry, physical examination, diagnostic imaging, laboratory studies, and medical and surgical management of complex wounds.

# MCO 6415 Evaluation of Joint Arthritis and Trauma Managed with Joint Reconstruction (4)

This course introduces advanced principles of orthopaedic evaluation, diagnosis, and treatment necessary for regular clinical application, applying evidence-based medicine to the management of orthopaedic complaints, and focusing on general anatomy, biomechanical pathology, physical examination, diagnostic imaging, classification of periarticular fractures, and arthritis.

#### MCO 6416 Musculoskeletal Oncology Evaluation and Management (4)

This course introduces advanced principles of orthopaedic evaluation, diagnosis, and treatment necessary for regular clinical application, applying evidence-based medicine to the management of musculoskeletal neoplasms and infections, and focusing on general anatomy, biomechanical pathology, physical examination, diagnostic imaging, laboratory studies, and radiographic classification of oncologic lesions and pathologic fractures.

# MCO 6417 Introduction to Evaluation and Management of Orthopaedic Trauma (4)

This course introduces advanced principles of orthopaedic evaluation, diagnosis, and treatment necessary for regular clinical application, applying evidence-based medicine to the management of musculoskeletal trauma, and focusing on general anatomy, biomechanical pathology, physical examination, diagnostic imaging, laboratory studies, and radiographic classification of orthopaedic trauma.

### MCO 6418 Introduction to Evaluation and Management of General Trauma (4)

This course introduces advanced principles of surgical evaluation, diagnosis, and treatment necessary for regular clinical application, applying evidence-based medicine to the management of multisystem trauma, and focusing on general anatomy, biomechanical pathology, physical examination, diagnostic imaging, laboratory studies, and radiographic classification of multisystem trauma.

#### MCO 6419 Introduction to Critical Care Management (4)

This course introduces advanced principles of orthopaedic evaluation, diagnosis, and treatment necessary for regular clinical application, applying evidence-based medicine to the management of intensive care unit patients, and focusing on general anatomy, biomechanical pathology, physical examination, diagnostic imaging, laboratory studies, and medical management of critical patients.

#### MCO 6420 Advanced Sports Injury Management (4)

This course further examines critical principles of orthopaedic evaluation, diagnosis, and treatment necessary for regular clinical application, applying evidence-based medicine to the management of patient athletes, and focusing on extremity anatomy, biomechanical pathology, physical examination, diagnostic imaging, and rehabilitation methods.

# MCO 6421 Advanced evaluation and management of orthopaedic trauma (4)

This course introduces advanced principles of orthopaedic evaluation, diagnosis, and treatment necessary for regular clinical application, applying evidence-based medicine to the management of musculoskeletal trauma, and focusing on general anatomy, biomechanical pathology, physical examination, diagnostic imaging, laboratory studies, and radiographic classification of orthopaedic trauma.

#### MCO 6422 Advanced Critical Care Management (4)

This course introduces advanced principles of orthopaedic evaluation, diagnosis, and treatment necessary for regular clinical application, applying evidence-based medicine to the management of intensive care unit patients, and focusing on general anatomy, biomechanical pathology, physical examination, diagnostic imaging, laboratory studies, and medical management of critical patients.

#### MCO 6423 Medical Research Design (4)

Pre-requisite(s): CITI training only

This course introduces medical research design, focusing on generating a testable research question, developing a research design that addresses the question, and conducting a literature review that supports the study design.

### MCO 6424 Approaches to Medical Data Collection and Analysis (4)

Pre-requisite(s): CITI training only

This course introduces approaches to medical data collection and analysis, focusing on executing a research protocol, collecting outcome measures data, and then participating in the analysis of the data.

#### MCO 6425 Urgent Orthopaedic Evaluation (4)

This course introduces advanced principles of orthopaedic evaluation, diagnosis, and treatment necessary for regular clinical application, applying evidence-based medicine to the management of musculoskeletal trauma, and focusing on extremity anatomy, biomechanical pathology, physical examination, diagnostic imaging, laboratory studies, and radiographic classification of orthopaedic trauma.

#### MCO 6426 Advanced Joint Reconstruction (4)

Pre-requisite(s): MCO 6417

This course advances principles of orthopaedic evaluation, diagnosis, and treatment necessary for regular clinical application. It applies evidence-based medicine to the management of orthopaedic complaints. The course focuses on general anatomy, biomechanical pathology, physical examination, diagnostic imaging, classification of periarticular fractures, and arthritis.