



SURG 601

Orthopedic Surgery

Elective Description

This elective provides students with an understanding of common orthopedic disorders and injuries with regard to examination, diagnosis, and management. The student will integrate medical and surgical knowledge in the care of trauma victims and musculoskeletal injuries.

Credit: 2-4 semester credits

Prerequisites: SURG 500

Elective Background: An orthopedic surgery elective takes place in a wide variety of settings and presents a unique opportunity with respect to the spectrum of clinical situations encountered. The availability of a multitude of potential experiences allows flexibility to individualize the clerkship and accommodate learning needs. Potential for individualization is considered a valuable component of any high-quality educational experience.

Elective Structure: Students rotate in assigned clinical settings in order to complete the orthopedic surgery elective. Surgical preceptors will specify site requirements for the elective and ensure students are provided with an appropriate level of clinical and didactic experience. Emphasis will be placed on the following:

- Demonstrating an understanding of the basic science, physiology, pathophysiology, pathology, and natural history of common orthopedic conditions and injuries.
- Obtaining and report an Orthopedic focused history and physical examination, as it relates to common acute and chronic orthopedic injuries and conditions.
- Recognizing and articulating of the pathology and biomechanics of injury.
- Knowledge of preventative measures to avoid common orthopedic conditions and injuries.
- Recommending appropriate laboratory and radiologic testing to determine an appropriate diagnosis.
- Devising a working differential diagnosis for common orthopedic conditions.
- Understanding appropriate treatment modalities for orthopedic surgical conditions.
- Differentiating between injury requiring urgent treatment and delayed therapy
- Understanding non-operative treatment modalities
- Recognizing injuries for which a minor delay in treatment would not be deleterious to the patient
- Demonstrating understanding of the indications, risks, and limitations of the commonly performed procedures in orthopedics
- Assisting in the management of preoperative, peri- and post-operative patient care under supervision.
- Developing fundamental psychosocial skills by observing physician-patient interactions during this rotation.
- Recognizing the psychological impact of injury on the patient and when to select those that need further consultation to assist in their management.

Note: Students may take the NBME Advanced Surgery Exam.

Entrustable Professional Activities

As a fourth-year student, the focus of skills development are those tasks important for entering residency training:

- Gather a history and perform a physical exam
- Prioritize a differential diagnosis following a clinical encounter
- Recommend and interpret common diagnostic and screening tests
- Enter and discuss orders and prescriptions
- Document a clinical encounter in the patient record
- Provide an oral presentation of a clinical encounter
- Form clinical questions and retrieve evidence to advance patient care
- Give or receive a patient handover to transition care responsibility
- Collaborate as a member of an inter-professional team
- Recognize a patient requiring urgent or emergent care and initiate evaluation and management
- Obtain informed consent for tests and/or procedures
- Perform general procedures of a physician
- Identify systems failures and contribute to a culture of safety and improvement

General Course Objectives

Medical Knowledge

- Define, describe and discuss the following:
 - Open and closed fractures, dislocations, and subluxations.
 - Clinical and radiological features of fractures.
 - Management priorities in treating fractures, dislocations and subluxations.
- Discuss common fractures and joint injuries
- Identify specific problems with their diagnosis and management
- Discuss the indications and contraindications for reattachment of an amputated appendage
- Discuss the proper method of transporting the amputated part
- Describe and discuss joint replacement

Patient Care

- Demonstrate the ability to obtain and report a basic orthopedic patient history for common orthopedic conditions and injuries with particular emphasis on the chief complaint, inciting events, mechanism of injury, exacerbating and alleviating factors, timing of symptoms and associated symptoms.
- Demonstrate an ability to perform and report a basic orthopedic physical examination of the spine, shoulder, elbow, wrist and hand, pelvis and hip, knee, foot and ankle
- Demonstrate an ability to develop and execute patient care plans appropriate for level of training and follows the SOAP/problem-oriented format.
- Describe different sutures and selection process for orthopedic surgical procedure.
- Describe alternative methods of wound closures dependent on anatomical location.
- Demonstrate aseptic technique in the OR and in ER when asked to manage a wound.
- Demonstrate patient safety concerns regarding body alignment, padding bony prominence, proper tourniquet application, and environmental safety preoperatively when preparing the patient for surgery.
- Demonstrate proper extremity immobilization methods, drain care, surgical site assessment postoperatively and rehabilitation.
- Demonstrate an understanding of palpatory findings, which are found in common conditions, encountered in a surgical practice.

- Demonstrate ability to assess sensory and perfusion of extremities after injury and after reconstruction.
- Demonstrate ability to assess unique congenital deformities in the head, neck, and spine that can affect pre- and postoperative care.

Interpersonal and Communication Skills

- Be proactive in acquiring communication skills
- Demonstrate cultural sensitivity
- Present patient data (observations or topic reviews) effectively and succinctly
- Effectively communicate with management team- Attending, Residents, and with auxiliary staff
- Communicate effectively with patients and families and be able to answer pertinent questions on disease process
- Accept feedback and critique and be able to adapt and learn
- Be proactive and introduce self to patients, attending, residents, other physicians, nurses, staff etc
- Display a sense of responsibility and be respectful to patients, family, staff and peers

Professionalism

- Demonstrate commitment to professional responsibilities and ethical principles, and sensitivity to a diverse patient population and cultures
- Demonstrate reliability, punctuality, prompt response and be available to pages when called
- Maintain a professional appearance – well-groomed and appropriate professional dress
- Demonstrate an appropriate professional attitude; be cooperative; be receptive to feedback
- Demonstrate commitment to continuity of care

Practice-based learning

- Demonstrate motivation and desire to learn
- Demonstrate the ability to learn from practice
- Critique personal practice outcomes appropriate for level of training
- Demonstrate recognition of the importance of lifelong learning in Medical/Surgical practice
- Seek and respond appropriately to feedback

Systems-Based Practice

- Demonstrate an appreciation for collegial interaction necessary for teamwork on the surgical service
- Demonstrate and advocate for quality patient care and patient safety
- Follow policy and procedures set forth by the health care facility and departments within that facility
- Attend all required orientations at rotating facility and complete required paper work, obtain badges and appropriate access
- Report to appropriate institutional authority when there are absent or unable to attend clinical guidelines orientation
- Demonstrate a willingness to participate in a team approach to health care and patient well-being.

RECOMMENDED TEXTBOOKS and Other Resource Material

Doherty GM. 2015. Current Diagnosis and Treatment: Surgery, 14th edition. Lange McGraw Hill.

Pestana C. 2018. Dr. Pestana's Surgery Notes, 4th edition. Kaplan Medical.

Brunicaudi FC. 2019. Schwartz's Principles of Surgery, 11th edition, McGraw Hill.

Evaluation

The evaluation will include the entrustable professional activities. The clerkship preceptor will evaluate those relevant to this clerkship experience.

GRADES

This elective is graded Satisfactory/Unsatisfactory.

Note: Students may take the NBME Advanced Surgery Exam for Honors and High Pass consideration.

POLICIES

ACADEMIC DISHONESTY

The University holds its students to the highest standards of intellectual integrity. Therefore, the attempt of any student to pass any examination by improper means, present work which the student has not performed or aid and abet a student in any dishonest act may result in disciplinary action including immediate dismissal. Any student witnessing or observing a perceived violation of academic dishonesty is required to report it as outlined in the Guidelines. Students failing to report an observed violation may also receive disciplinary action.

ATTENDANCE POLICIES

Attendance of lectures and laboratories is based on the University's stated attendance policy. Refer to the Student handbook for more information.

CONDUCT

The University expects all students to be responsible individuals who possess the highest standards of integrity, honesty and personal conduct. These traits are prerequisites to independent learning, professional development, the successful performance of academic and clinical assignments, and the conduct of one's personal life. Accordingly, students are expected to adhere to a standard of behavior consistent with the University's high standards at all times off and on campus. Compliance with institutional rules and regulations, in addition to city, state and federal laws, is expected.

COPYRIGHT POLICY

Trinity Medical Sciences University must respect and observe the right and privileges of copyright holders, obey the United States Copyright Act and preserve the integrity of its internal network systems. All students must sign the technology and software use policy. A copy of this policy may be obtained from the Information and Technology Department.

DRESS CODE

All students are expected to maintain the highest standards of professional appearance at all times. During years one and two and while on campus. Medical students are required to wear scrubs or white coats with appropriate dress. Appropriate dress for clinical students includes business slacks with open-collar shirt for men, and business slacks or skirt with professional shirt or sweater for women.

Trinity School of Medicine Faculty Contact Information

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