

## STANFORD SURGERY COURSES (PRECLINICAL)

### **SURG 204: Introduction to Surgery (Fall)**

This lunch seminar is designed to give preclinical medical students a broad overview of surgical specialties and life as a surgeon. Interactive talks by leading surgeons from the General Surgery, Plastic Surgery, Neurosurgery, Orthopedic Surgery, Head and Neck Surgery, Transplantation Surgery, and Cardiac Surgery departments will highlight the array of operation types performed and diseases and conditions encountered in their disciplines. In addition, each lecturer will provide students with a “road map” as to how to successfully enter each specialty field of surgery. Lunch will be provided.

### **SURG 205: Technical Training and Preparation for the Surgical Environment (Fall)**

This course is designed for preclinical medical students interested in acquiring the technical skills and clinical orientation necessary to learn and participate in the surgical environment. Scrub training starts the course to facilitate the learning of sterile technique required prior to participation in the operating room, and students will learn basic surgical techniques (including basic knot tying, suturing, hand-sewn bowel anastomoses, and laparoscopic skills) to enhance their operating room experiences. The class requires one mandatory operative shadowing experience with an attending surgeon outside of normal class hours. The course will introduce students to the field of surgery both in this technical sense, as well as in regards to life as a surgeon, as opportunities for one-on-one surgical faculty membership will be provided. Preference is given to second year students.

### **SURG 254: Operative Anatomy and Techniques (Winter)**

For preclinical students; provides a background in and integrates knowledge of surgical anatomy and therapy. Surgical or operative anatomy differs from gross anatomy in that the area exposed during surgery may be limited, the dissection may require exposing other seemingly unrelated anatomic structures with unique landmarks, and the procedure may require unusual technical facility. Provides an opportunity for students to understand the goals of representative surgical procedures (translating pathophysiology to surgical decision making to actual incision). Students learn surgical skills and perform the dissection of a number of commonly performed operations in the bio-skills laboratory. Emphasizes hands-on participation in surgical procedures in the laboratory and is taught by attending physicians in general, cardiothoracic, vascular, plastic, head and neck, urologic, and orthopedic surgery.

### **ORTHO 201: Musculoskeletal Exam Practicum (Winter)**

Student initiated course. Opportunity to enhance knowledge and skills for conducting musculoskeletal exams. Sessions led by Stanford Orthopaedic Surgery attendings and residents. Didactic introductions followed by hands-on practice of specific aspects of the musculoskeletal exam.

### **SURG 242: Art and Anatomy Studio (Spring)**

Lectures highlight the intersections and influences between human anatomy and art. Studio sessions provide an opportunity for students to immerse in anatomically inspired studio projects. Drawing, mixed media, and some painting mediums will be used during the studio sessions. Plastic models, dry bones, cadaveric specimens, and live models will be used for the studio sessions. Class time includes art instruction, creation and feedback. May be repeated for credit. Honing individual style is encouraged; both beginning and advanced students are welcome. Previous coursework in anatomy is recommended, but not required.

### **SURG 256: Clinical Anatomy and Surgical Education Series (CASES) (Spring)**

Intended for first-year MD students. Builds on prior experience in the first-year medical curriculum consisting of the required Clinical Anatomy and the elective Operative Anatomy courses. Focuses on case-based didactic sessions for teaching the approach to a variety of surgical cases and their management. Students perform simulated cadaveric surgical procedures using standard operative instruments and techniques based on clinical case presentations and analysis. Covers hand surgery, vascular surgery, minimally invasive surgery, ear surgery and eye surgery specialties.

### **NSUR 200: Narratives in Neurosurgery (Spring)**

Introduces medical, non-medical graduate and undergraduate students to careers in neurosurgery. Focuses on a progressive walk through the educational milestones of a neurosurgical career, starting with perspectives of 4th year medical students and working up to day-to-day functions and lifestyles of senior neurosurgical faculty. Additional topics covered include: global health neurosurgery, private practice neurosurgery, and academic neurosurgery.

### **ORTHO 210: Practical Sports Medicine and Orthopaedic Exam (Fall, Spring)**

Designed for students considering a career in sports medicine, orthopaedics, physical medicine and rehabilitation, emergency medicine, internal medicine, family practice, or physical therapy. Focus is on diagnosis and treatment of the most common injuries encountered in sports medicine, from head to toe and from acute trauma to chronic overuse. Students gain competence performing an efficient sports medicine exam, developing a differential diagnosis, and a treatment plan on how to safely return athletes back to their sport. Focused physical exam skills are taught for the neck, shoulder, elbow, wrist and hand, low back, hip, knee, leg, ankle and foot. Most sessions consist of anatomy review, case discussion, and hands-on exam practice in small groups. A few sessions cover specific hot topics in sports medicine such as concussion, athletic heart syndrome, and advanced performance techniques. Students enrolling for two units prepare an in-class presentation or short review paper.

Additional Courses from Dr. Lau's Presentation

- Surgery 234– Service Through Surgery
- Surgery 250 – Principles and Practice of International Humanitarian Surgery
- Surgery 257 – Clinical Teaching Seminar Series