

640C Neuromuscular Medicine

This course is available to UC Irvine students only

Elective at a Glance		
Available to: <input checked="" type="checkbox"/> UCI MS3 students <input checked="" type="checkbox"/> UCI MS4 students <input type="checkbox"/> Extramural Students		
Duration: 4 weeks	Number of Students: 1 per block	Grading: H / P / F
Periods available: September - June		

1. Course Director, Coordinator and General Administrative Information

FACULTY AND STAFF

Name	Office Location	Phone	Email
Course Director: Manisha Korb, MD	200 S. Manchester Avenue, Ste. 206 Orange, CA 92868	714-456-7432	mkak@uci.edu
Course Coordinator: Nicole Santos	200 South Manchester, Suite 206, Orange, CA 92868	714456-3565	Santosn@hs.uci.edu

DESCRIPTION

This elective provides experience in neuromuscular disorders including participation in specialty neuromuscular clinics, (dealing with a variety of acquired and inherited disorders) and exposure to basic and advanced electrodiagnostic procedures, muscle and nerve pathology, skin biopsy and autonomic testing.

PREREQUISITES

Successful completion of first- and second-year year curriculum. Successful completion of the third-year neurology core rotation. At least one USMLE score must be available.

RESTRICTIONS

None

COURSE DIRECTOR

Manisha Korb, MD, UCI Medical Center, Department of Neurology, 200 S. Manchester Avenue, Ste. 206 Orange, CA 92868 Phone: 714-456-7432 Fax: 714-456-5997 mkak@uci.edu

COURSE COORDINATOR

Nicole Santos, 200 South Manchester, Suite 206, Orange, CA 92868. Phone: 714456-3565; Fax:714-456-8805; email: santosn@hs.uci.edu

Instructing Faculty

Tahseen Mozaffar, MD Professor of Neurology & Orthopaedic Surgery; Namita A. Goyal, MD Associate Clinical Professor of Neurology; Ali Habib, MD Associate Professor of Neurology; Manisha Korb, MD Associate Professor of Neurology; Jeff Mullen, MD Assistant Professor of Neurology

INFORMATION FOR THE FIRST DAY

Who to Report to on First Day: Manisha Korb, MD (if off site, please report to Jeff Mullen, MD)

Location to Report on First Day: UCI-MDA ALS and Neuromuscular Center, 200 South Manchester Avenue, Ste. 110, Orange CA 92868

Time to Report on First Day: 8:00 AM

SITE: UC Irvine Medical Center

DURATION: 4 weeks

Scheduling Coordinator

UCI students please email comsched@hs.uci.edu to make a scheduling appointment.

Periods Available: September - June

NUMBER OF STUDENTS ALLOWED

1 per block

WHAT STUDENTS SHOULD DO TO PREPARE FOR THE COURSE

The students should revise their knowledge of peripheral nerves in the limbs and the muscles innervated by these nerves. We also recommended that they are fully informed of the root values and plexus origins of these muscles.

COMMUNICATION WITH FACULTY

N/A

2. Course Objectives and Program Objective Mapping

The following are the learning objectives for the 620A course. Students are expected to demonstrate proficiency in these areas in order to satisfactorily complete the course. In addition, the extent of a student's mastery of these objectives will help guide the course evaluation and grade.

Course Objective	Mapped UCI School of Medicine Program Objective	Sub Competency	Core Competency

Key topics:

- The ability to distinguish peripheral nervous system disorders from central nervous system disorders
- Learn the basics of major neuromuscular disorders, such as ALS, Myasthenia Gravis, Muscular Dystrophies, and Peripheral Neuropathy
- Learn the utility of various forms of neurodiagnostic studies to aid the diagnosis of neuromuscular disorders
- Learn the utility of muscle and nerve pathological studies to aid the diagnosis of neuromuscular disorders
- Learn the role of multidisciplinary care in management of complex neurological disorders

Competencies:

- The ability to distinguish peripheral nervous system disorders from central nervous system disorders
- Learn the basics of major neuromuscular disorders, such as ALS, Myasthenia Gravis, Muscular Dystrophies, and Peripheral Neuropathy
- Learn the utility of various forms of neurodiagnostic studies to aid the diagnosis of neuromuscular disorders

- Learn the utility of muscle and nerve pathological studies to aid the diagnosis of neuromuscular disorders
- Learn the role of multidisciplinary care in management of complex neurological disorders

Attitudes and Commitments:

- Appreciate the challenges faced by disabled patients who suffer from progressive neuromuscular dysfunction
- Appreciate the challenges families face dealing with fatal, progressive neuromuscular dysfunction
- Commitment to help achieve independence in activities of daily living for such patients with progressive neuromuscular dysfunctions

Educational Activities:

Monday AM (8 AM – 12 noon) EMG (Dr. Habib, Dr. Mullen), Neuromuscular Clinic (Dr. Goyal)

Monday PM (1 PM – 5 PM) EMG (Dr. Habib), Neuromuscular Clinic (Dr. Mullen)

Tuesday all day (8 AM – 5 PM) ALS/Muscular Dystrophy Association Clinic (Dr. Mozaffar, Dr. Goyal, Dr. Habib), EMG (Dr. Korb)

Wednesday AM (8 AM – 12 PM) EMG and Autonomic Testing (Dr. Korb), Neuromuscular Clinic (Dr. Habib)

Wednesday PM (1 PM - 5 PM) EMG (Dr. Goyal), Neuromuscular Clinic (Dr. Korb)

Thursday AM (8 AM – 12 PM) Neuromuscular Clinic (Dr. Habib, Dr. Korb, Dr. Mullen), EMG (Dr. Goyal)

Thursday PM (1 PM – 5 PM) EMG (Dr. Mullen), Neuromuscular Clinic (Dr. Habib, Dr. Korb)

Friday AM (8-9 AM) Neurology Grand Rounds

Friday AM (9 AM – 12 PM) Neuromuscular Clinics (Drs. Mozaffar) 1st and 2nd

Fridays of the month, ALS Clinic (Dr. Mullen, Dr. Korb) 4th Friday of the month

Friday PM (1 PM – 5 PM) Myasthenia Gravis Clinics (Dr. Habib) 2nd and 3rd Friday of the month

Friday PM (1 PM – 5 PM) Urgent EMG or Clinic (Dr. Mozaffar), individual study time

Clinical Responsibilities of the Student:

The students will be working directly with the attendings and will be the primary contact with the patients assigned to them. They will also be part of the neuromuscular team, working with the neuromuscular medicine fellow, review the muscle and nerve pathology slides and present topics assigned by the attendings during their rotations. If during this period, there are neuromuscular patients admitted to the hospital the medical students will be asked to work them up and follow them along with the ward teams.

Patient Care Responsibilities:

The students will be asked to see the patients first and by themselves (acting at the level of a sub-intern). They will take history from the patients, review the medications, do a review of pertinent symptoms, examine the patient and present this to the attending. They will be expected to formulate a differential diagnosis and a diagnostic and management strategy for such patients.

Call Schedule of the Student: There are no calls associated with this rotation.

Procedures to be Learned by the Student:

- Nerve conduction studies
- Neele EMG studies
- Autonomic Testing
- Skin biosies for diagnosis of small fiber neurophathies
- Lumbar puncture

3. Course Resources

TEXTS AND READINGS:

REQUIRED READING LIST:

Michael H. Brooke, MD. A clinician’s view of neuromuscular diseases. Second Edition. Williams & Wilkins, Baltimore, MD. 1986 (out of print – but reserved copy available in the Neuromuscular Center)

Recommended Reading List:

Anthony A. Amato, James A. Russell. Neuromuscular Disorders. 1st Edition. McGraw Hill Medical, New York, NY. 2008 (copy available in the neuromuscular center)

4. Major Exams, Assignments and Grading

MANDATORY SESSIONS

Percentage of Time Student will Participate in Ambulatory Setting: 80-90%
This is predominantly an outpatient rotation.

Conference/Lecture/Small Group Sessions:

Approach to neuropathy	Lecture
Approach to myopathies	Lecture
Approach to Neuromuscular Junction disorders	Lecture
Fundamentals of muscle biopsy	SGD
Fundamentals of EMG and nerve conductions	SGD
Weekly case presentations	Case vignettes

Case vignettes. Case vignettes will cover common neuromuscular conditions and will teach standardized approach to common neuromuscular conditions. Small group discussion: the students will participate in the Wednesday small group discussion that highlights interesting cases of the week/month

Course Hours Weekly Summary:

40%	Case Based
30%	Conference
10%	Clinical Correlates
5%	Grand Rounds
5%	Examinations
5%	Laboratories
5%	Patient-Care Activities
	Small Groups
100%	Total

Content Theme Integration: Integrate brain structure and function of the nervous system with internal medicine and psychiatry.

MAJOR ASSIGNMENTS AND EXAMS

GRADING

The student will receive a grade of Honors, Pass or Fail. The student’s final grade will be submitted on the standard UCI elective form. If the student fails the elective a grade of "F" will be permanently recorded on his/her transcript. The student can repeat the course for a second grade, however, the "F" will not be removed from the transcript.

Requirements for “Pass”:

To receive a grade of Pass, students must demonstrate successful performance in all the following areas:

- Knowledge
- Patient Care
- Practice-Based Learning
- Interpersonal & Communication Skills
- Professionalism
- Systems-Based Practice

Requirements for “Honors”:

To receive a grade of Honors, students must demonstrate exceptional performance all the following areas:

- Knowledge

- Patient Care
- Practice-Based Learning
- Interpersonal & Communication Skills
- Professionalism
- Systems-Based Practice

Grounds for “Incomplete”: You will not be issued a grade until all elements of the course have been completed.

REMEDATION

Remediation, if needed will be designed by the Course Director to suit the issue at hand.

Grounds for “Fail”: You will receive a grade of "Fail" if the requirements for passing the course have not been met. Please refer to the [Grading Policy](#) for the impact of the "Fail" grade to the transcript.