

<b>Faculty In Charge Of Course:</b>	Anne H. Dougherty, M.D.
<b>Participating Faculty:</b>	Mohammed Numan, M.D., Gregory Pepper, M.D., Ping Wong, M.D.
<b>Location:</b>	Memorial Hermann Hospital and University of Texas Health Science Center Professional Building
<b>Offered:</b>	Each Month
<b>Max. # Students/Period:</b>	1

**Course Objective**

The goal of the rotation is to provide a balanced, structured and scholarly experience in both inpatient and outpatient clinical electrophysiology. Diagnosis and management of clinical arrhythmias is emphasized using both invasive and noninvasive techniques.

**Material Covered:** Student will study clinical arrhythmia syndromes, including

- Sinus node dysfunction
- Atrioventricular and intraventricular conduction delay and block
- Supraventricular and ventricular tachyarrhythmias
- Syncope
- Aborted sudden cardiac death
- Palpitations
- Wolff-Parkinson-White syndrome
- Prolonged QT syndromes, and
- Other inherited and acquired arrhythmia syndromes

**Skills Acquired:** Specifically, students will gain experience in:

- Arrhythmia diagnosis, through interpretation of 12 lead ECG's and ECG telemetry recordings
- Inpatient management of clinical bradyarrhythmias and tachyarrhythmias
- Noninvasive cardiac arrhythmia testing, such as:
  - Relevant imaging studies, including chest radiography
  - Electrocardiograms
  - Tilt testing
  - Continuous in-hospital recordings
  - Signal-averaged ECG recordings
  - T wave alternans analysis
  - Exercise and pharmacologic stress test ECG recordings
- Invasive CCEP procedures and therapy, including ablation, surgery and device implantation
- Care of patients with pacemakers, ICD's and CRT devices
- Indications for, pharmacology, pharmacokinetics and effects of antiarrhythmic drugs
- Implementation of clinical trial data in the management of arrhythmia patients.

**Activities Of Elective**

**Number Of New Patients/Student/Week:** 4-8

**Responsibilities Of Student For Assigned Patients:**

Does history/physical:	Yes
Who critiques:	Faculty
Follows patients, with appropriate notes as needed:	Yes
Who supervises:	Faculty
Does student see ambulatory patients:	Yes

<b>Procedures</b>	<b>Observe</b>	<b>Perform</b>
Cardiac electrophysiology studies and ablations	X	
Pacemaker and ICD implantations	X	
Cardioversions	X	X
Holter monitor, signal averaged, ECG's and T Wave alternans	X	
Tilt table testing	X	X

**Scheduled Duties of Student:**

Frequency of rounds on patients	Daily
Presents patients to preceptor or attending physician	Yes
Weekly schedule of required teaching sessions	Daily teaching rounds and Holter interpretations Thursday 4 :00 P.M. EP Conference Thursday 12:00 p.m. Cardiology Grand Rounds

**Describe Optional Rounds And Activities, If Any:**

Noon Cardiology Core Curriculum Conferences

**Other Required Activities:**

	Reading/review of current literature	Yes
	Writing or presenting a paper	No
	Suggest reading	<b>Handbook of Cardiac Electrophysiology</b> , Francis D. Murgatroyd, ReMedica 2002 <b>Electrophysiological Testing</b> , Richard Fogoros, Blackwell, 2006

**How Is Student Evaluated:**

Student is evaluated on presentations, writings, and knowledge from readings.

**Who Evaluates Students:**

Faculty

**Unique Features Of This Elective:**

Students will receive a concentrated experience in cardiac arrhythmias, and thus an opportunity to hone skills at ECG interpretation and arrhythmia management. They will have the opportunity to scrub in on invasive electrophysiology procedures, including device implantation and ablations.