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
• Atioventricular 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:
  o Relevant imaging studies, including chest radiography
  o Electrocardiograms
  o Tilt testing
  o Continuous in-hospital recordings
  o Signal-averaged ECG recordings
  o T wave alternans analysis
  o 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 |

Procedures

<table>
<thead>
<tr>
<th>Procedures</th>
<th>Observe</th>
<th>Perform</th>
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<tbody>
<tr>
<td>Cardiac electrophysiology studies and ablations</td>
<td>X</td>
<td></td>
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<tr>
<td>Pacemaker and ICD implantations</td>
<td>X</td>
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<tr>
<td>Cardioversions</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Holter monitor, signal averaged, ECG’s and T Wave alternans</td>
<td>X</td>
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<tr>
<td>Tilt table testing</td>
<td>X</td>
<td>X</td>
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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 |

1/15/2019
Describe Optional Rounds And Activities, If Any:

Noon Cardiology Core Curriculum Conferences

Other Required Activities:

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<thead>
<tr>
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<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>Reading/review of current literature</td>
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<tr>
<td>Writing or presenting a paper</td>
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<tr>
<td>Suggest reading</td>
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Handbook of Cardiac Electrophysiology, Francis D. Murgatroyd, ReMedica 2002

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.