

## Elective Description

**Campus:** Northeast (Grand Forks)

**Elective/Experience Title:** Clinical Cardiology

**Location of Elective:** Heart Institute of North Dakota – Grand Forks, ND

**Department:** Internal Medicine

**Course Number:** IMED 9314

**Preceptor(s):** Puvanalingam Ayyadurai, MD & Noah N Chelliah, MD

**Period(s) Offered:** all

**Number of students per period:** 1

**Course prerequisites:**

**Revised Curriculum Phase(s):** 2 & 3

**Purpose:** To gain knowledge, experience and clinical skills in the care of cardiology patients.

**Objectives:** Following successful completion of this elective, the student will be able to:

1. Demonstrate skill in bedside clinical evaluation of the patient's cardiac disease
2. Describe the pathophysiology and approach to heart failure, cardiogenic shock, syncope ischemic heart disease, valvular heart disease, congenital heart disease in the adult, pericardial disease, and arrhythmias.
3. Interpret the results of an EKG.
4. Discuss the mechanism of action, pharmacokinetics, therapeutic efficacy, side effects, and toxicities of digitalis in the major cardiac drugs, including beta blockers and calcium channel blockers.
5. Demonstrate skill in chest x-ray diagnosis.

**Instructional Activities:** During this elective, the student will be involved in/experience:

1. Workup of a minimum of three patients per week with review of the workup by faculty. The emphasis of this evaluation will be on problem assessment and formulation of diagnostic and therapeutic plans.
2. Daily cardiology rounds including the coronary care unit (CCU).
3. Review of selected readings from the faculty one hour per week.
4. EKG interpretation for at least two weeks of the rotation.
5. Echocardiography and treadmill exercise testing.

**Criteria for Grading:** During and following this elective, the preceptor will:

1. Utilize the standardized UNDSMHS senior elective evaluation form.
2. Evaluate by direct observation the student's skill in bedside clinical examination.
3. Review and evaluate the student's write-ups on various topics discussed with the preceptor and as directed by the preceptor.
4. Evaluate the student's answers to written questions (take-home) on the cardiac examination, syncope, ischemic heart disease, valvular heart disease, para cardio disease, the user digitalis, and the use of antiarrhythmic drugs.
5. Evaluate by direct observation the student's skill in the formulation of clinical problems based on presentation of cases to the faculty.
6. Evaluate by direct observation the student's skill in EKG reading and arrhythmia analysis.
7. Review and evaluate the student's written communication on work-ups, progress notes, and consultations.
8. Evaluate by direct observation the student's "360"/comprehensive communication skill.