

Course Description**SON2139L | Cardiovascular Principles | 1.00 credit**

An introductory course to techniques other than echocardiography utilized in the diagnosis of cardiovascular disease. Topics discussed include physical examination, electrocardiogram, Phonocardiogram, cardiac catheterization, and nuclear medicine cardiology. Prerequisite: SON2400C; Corequisite: SON2401C.

Course Competencies

Competency 1: The student will demonstrate knowledge and comprehension of the Physician's physical exam by:

1. Describing the physical exam
2. Describing cardiac symptoms
3. Recognizing stethoscope positions for auscultations
4. Recognizing physical signs of cardiac disease

Competency 2: The student will demonstrate knowledge and comprehension of Cardiac Stress Tests by:

1. Explaining the role of cardiac stress test
2. Explaining the indications for a cardiac stress test
3. Explaining the basic procedures of cardiac stress test

Competency 3: The student will demonstrate knowledge and comprehension of EKG by:

1. Identifying the PQRS waves
2. Identifying the origins of arrhythmias
3. Identifying the appearance of multiple arrhythmias
4. Measuring HR on EKG's
5. identifying the instruments used in EKG
6. Identifying arrhythmias presented and identifying where they originated
7. Recognizing fibrillation, tachycardia, and flutter
8. Recognizing ventricular fibrillation
9. Comparing ventricular fibrillation and atrial fibrillation

Competency 4: The student will demonstrate knowledge and comprehension of cardiac Heart Sounds by:

1. Defining S1, S2, S3, S4 sounds
2. Explaining the steps in evaluating for abnormal heart sounds
3. Listing categories of murmurs
4. Listing associated pathologies with each murmur presented

Competency 5: The student will demonstrate knowledge and comprehension of Nuclear Medicine studies by:

1. Describing nuclear medicine and its use in imaging
2. Describing the nuclear medicine studies used for cardiac anomalies
3. Describing what can be diagnosed by nuclear medicine examinations

Competency 6: The student will Demonstrate knowledge comprehension and application of cardiac catheterization studies and reports by:

1. Discussing cardiac catheterization
2. Comparing and contrasting results from cardiac catheterization and echocardiography
3. Recognizing abnormal pressure gradient curves and identifying the cardiac lesion involved
4. Identifying abnormal Wigger's diagrams for aortic stenosis, aortic regurgitation, mitral stenosis, and mitral regurgitation

Learning Outcomes:

- Solve problems using critical and creative thinking and scientific reasoning