Cardiovascular Integrated Pharmaceutical Care and Science (ICARE)
SHENANDOAH UNIVERSITY
Bernard J. Dunn School of Pharmacy
REMEDIATION COURSE SYLLABUS

619: Cardiovascular Integrated Pharmaceutical Care and Science (ICARE)

COURSE DESCRIPTION:
Cardiovascular ICARE will present the students with the pathophysiology of common diseases of the cardiovascular system, as well as the chemical, pharmacodynamic and pharmacokinetic properties of the drugs used to treat the diseases, and the therapeutic management of patients. This course is 4 credit hours for Shenandoah University visiting students.

COURSE FORMAT:
The course consists of a series of lectures and case discussions to develop the students' skills to assess, evaluate and apply information in order to make better informed, rational, responsible and ethical therapeutic decisions. Five exams will be given during the course, which are equally weighted to determine the course grade. The question types will vary, and include patient cases to assess application of the material. Exam 5 will be cumulative with approximately 75% new material and 25% prior material. *Note: The number of exams may vary based on the academic year in which the course is offered.*

COURSE OBJECTIVES:
At the completion of this course, the student will be able to:

1. Recognize and describe the pathophysiology of cardiovascular and thrombotic disorders.
2. Recognize and describe the pharmacology of different classes of medications used to treat cardiovascular and thrombotic disorders.
3. Evaluate and select education and treatment options for cardiovascular and thrombotic disorders.
4. Evaluate clinical outcomes of treatment and management plans for cardiovascular and thrombotic disorders.
5. Apply an evidence-based approach to selective patient cases.
6. Recall the brand and generic name for the medications discussed.

In addition to the global course objectives noted above, individual lecture objectives and outcomes will be provided prior to each lecture or lecture series.

REQUIRED TEXTS AND MATERIALS:

- DiPiro JT, Talbert RT, Yee GC, et al, eds. *Pharmacotherapy: A Pathophysiologic Approach*. McGraw Hill. (most recent edition)

OPTIONAL TEXT:

- Katzung BG, Masters SB, Trevor AJ, eds. *Basic & Clinical Pharmacology*. McGraw-Hill. (most recent edition)

Note: Editions may vary depending on availability. Required readings may also be drawn from other references as indicated by the lecturers, but are not required if they are not provided. Exam questions on required readings will primarily come from the DiPiro text above. Course content may be subject to copyright.

GRADING SCALE *(for students completing the course as a Shenandoah University visiting student)*

A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	< 60%

TOPICS:

- Pharmacology of Calcium Channel Blockers and Nitrates
- Pharmacology of Renin-Angiotensin Aldosterone System
- Diuretic Pharmacology
- Adrenergic Pharmacology: Beta-Blockers, Alpha-1 Blockers, Alpha-2 Agonists, and Miscellaneous Antihypertensives
- Pathophysiology of Hypertension
- Clinical Evaluation of Hypertension
- Therapeutics of Hypertension/Cases
- Pharmacology of Dyslipidemia Agents
- Therapeutics of Hyperlipidemia/Cases
- Pharmacology of Vasopressors, Inotropes, and Vasodilators
- Pathophysiology/Therapeutics of Heart Failure
- Chronic Heart Failure Cases
- Acute Decompensated Heart Failure/Case
- Cardiac Electrophysiology
- Pharmacology of Antiarrhythmic Agents
- Pathophysiology/Treatment of Atrial Arrhythmias
- Pathophysiology/Treatment of Ventricular Arrhythmias
- Arrhythmia Cases
- Pharmacology of Anticoagulants and Fibrinolytics
- Pathophysiology/Therapeutics of Thrombotic Disorders
- Anticoagulation Cases
- Pharmacology of Antiplatelet Agents
- Pathophysiology/Therapeutics of Ischemic Heart Disease/Cases
- Pathophysiology/Therapeutics of Acute Coronary Syndromes/Cases
- Pathophysiology/Therapeutics of Stroke

Note: Topics may vary based on the academic year in which the course is offered.