# BIOL 4000/6000 Credit Hours 3-0-3

# GENERAL PHARMACOLOGY Department of Biology

Instructor: Dr. Timothy J. Fort Office: BC 1100

Phone: (229) 249-2643 Email: tjfort@valdosta.edu

Office Hours: Tuesday and Thursday 4.00pm – 5.00pm

**Lecture:** Tuesday and Thursday 2.00pm – 3.15pm Room: BC 1025

**Textbook:** Principles of Pharmacology: The Pathophysiologic Basis of Drug Therapy, 3<sup>rd</sup> Edition

Golan, DE, Tashjian, AH, Armstrong EJ, & Armstrong AW

**Course Description:** General principles of pharmacology including pharmacokinetics and pharmacodynamics with emphasis on drugs affecting major systems of the body.

**Prerequisites BIOL 4000:** BIOL 1107, BIOL 1108, BIOL 3200, CHEM 1211/1211L, and CHEM1212/1212L, or permission of instructor. Recommended: BIOL 3450 or BIOL 3460

Prerequisites BIOL 6000: Admission into the graduate program or permission of Instructor.

#### **Course Objectives:**

By the end of this course, students will be expected to:

- (1) Demonstrate an understanding of the general principles of pharmacology.
- (2) Relate the functioning of individual drugs to the overall functioning of the human body.
- (3) Demonstrate competency in factual content / interpretation of the major areas of general pharmacology. These objectives support in part the Department of Biology Undergraduate Educational Outcomes # 3, the Department of Biology Graduate Educational Outcomes #1 and the Valdosta State University General Educational Outcomes #'s 4, 5, and 7.

**Attendance:** Attendance of lectures is expected of all students. Student attendance of classes will be recorded.

**Conduct:** Students are expected to arrive on time and behave with respect in lectures. Students should not talk during lectures, but if you do not understand or do not hear something please ask for clarification. Use of cell phones during lectures is not permitted. Cell phones must be turned off during lectures. If your cell phone activates during a lecture you will be asked to leave. If your cell phone activates during an exam you will be asked to leave and receive 0% for that exam.

Cheating / Plagiarism: Please refer to the Student Code of Ethics in the Valdosta State University Student Handbook. Any student caught cheating will be penalized, ranging from receiving a zero for that assignment or test, to failure and expulsion from the course. Please refer to the Valdosta State University, Department of Biology Plagiarism Policy. By taking this course, you agree that all required course work may be subject to submission for textual similarity review to Turnitin, a tool within BlazeVIEW.

**Students with Documented Disabilities:** Students requesting classroom accommodations or modifications due to a documented disability must contact the Access Office for Students with Disabilities located in the Farber Hall. The phone numbers are 245-2498 (V/VP) and 219-1348 (TTY).

**Privacy Act:** Due to the Buckley Amendment, or Privacy Act, an individual's personal information cannot be released to anyone but that individual. As such, grades will not be discussed over the phone, by email, or released to a friend or relative.

BIOL 4000 Assessment: Lecture: 3 Exams @100 points each : 300 points

Cumulative Final : 200 points
Drug Characteristics Assignment : 100 points
TOTAL: 600 points

BIOL 6000 Assessment: Lecture: 3 Exams @100 points each : 300 points

Cumulative Final : 200 points 2 Drug Characteristics Assignments @100points each : 200 points Oral Presentation : 50 points TOTAL: 750 points

- Any assigned work submitted late will **NOT** be graded.

- Any assigned work submitted electronically will **NOT** be graded, unless prior permission for electronic submission is granted.
- Make up examinations will only be given if an acceptable documented reason (determined by the instructor) is provided.
- Exams: Question styles will vary depending on the topics being examined and may include (but are not limited to), multiple choice, fill in the blank, diagrams, short answer and essays.

## **Tentative Sequence of Lecture Topics**

## **Section I: Fundamental Principles of Pharmacology (Chapters 1-5)**

Drug-receptor Interactions; Pharmacodynamics; Pharmacokinetics; Drug Metabolism / Toxicity

## **Section II: Principles of Neuropharmacology (Chapters 7-18)**

Cholinergic and Adrenergic Pharmacology; Pharmacology of GABAergic, Glutamatergic, Dompanimergic & Serotonergic Neurotransmission; Analgesia; Local / General Anesthetics; Drugs of Abuse

### Section III: Cardiovascular Pharmacology (Chapters 19-25)

Cholesterol and Lipoprotein Metabolism; Volume regulation / Vascular tone; Hemostasis and Thrombosis; Cardiac Rhythm / Contractility; Hypertension / Ischemic Heart disease / Heart Failure

#### Section IV: Principles of Endocrine Pharmacology (Chapters 26-31)

Hypothalamus / Pituitary Gland; Thyroid Gland; Adrenal Cortex; Reproduction; Pancreas & Glucose

Section VI: Principles of Inflammation / Immune Pharmacology (Chapters 41-48)

Section V: Principles of Chemotherapy (Chapters 32-40)

**Tentative Exam Dates:** Examination #1: 10 September

Examination #2: 6 October Examination #3: 3 November

Final Examination: Wednesday 9<sup>th</sup> December 2.45pm-4.45pm