

Kenneth L Mattox School of Mathematics and Sciences

BIOL3411 Fall 2nd8wks 2025– Pathophysiology Syllabus

## WAYLAND MISSION STATEMENT

Wayland Baptist University exists to educate students in an academically challenging, learning-focused and distinctively Christian environment for professional success, lifelong learning and service to God and humankind.

**Course Title:**

Biology 3411 – Pathophysiology

# INSTRUCTOR:

**Instructor:** Adam Reinhart, Ph.D.

**Office:** Rm# 203 291-1124

**Email:** reinhart@wbu.edu

**Office hours:** posted on my door and by appointment.

**Meeting Time:** M&F 10:00-12:15; W 10-11:50 Rm # 205 – may switch after semester starts

# CATALOG DESCRIPTION:

Application of knowledge of normal anatomy and physiology to promote a clear understanding of disease processes. Introduces the student to common body responses and manifestations of disease that result from imbalances in homeostasis of the body.

# PREREQUISITES:

BIOL 3408, BIOL 3409, and BIOL 3410 - **you must have completed 2 semesters of A&P**.

# TEXT:

Lachel Story (2024). *Pathophysiology: A practical Approach*. 5th edition Jones and Bartlett. ISBN 978-1284288094 for printed copy. ($110)

**NOTE: eTextbook included at registration**. The ebook has inset definitions, images, key words on the exams, and practice questions, and other resources. If you want to buy a hard copy that is fine, but you must OPT-OUT of ALL of your the eTextbooks, or be charged. Be aware opting out of one book might opt you out of ALL textbooks.

# BLACKBOARD:

All materials and interactions will be done on Blackboard. It is REQUIRED that each student activate their student email accounts – this is the official means of communication between faculty and students. (Wayland email). If you email me using an alternate email address (yahoo, google,etc.) it goes to my junk

mail and I will not respond. So **USE** your WAYLAND email. Announcements come to your Wayland email, and I put out at least one announcement per week. Information is in the classroom under "Start Here". If you require assistance in getting this done, please contact the IT department at itsupport@wbu.edu. Also, Chrome seems to be the browser of choice with Blackboard. If an assignment does not work try clearing the cache in your bowser as a first step

# COURSE OUTCOME COMPETENCIES:

At the conclusion of this course, the student will be able to:

1. Analyze cellular and molecular biology as a prerequisite to understanding disease.
2. Examine the cooperation of various systems of the body resulting in fluid, electrolyte and acid- base balance.
3. Analyze how environment and lifestyle affect pathophysiological processes.
4. Evaluate the body’s inflammatory response to tissue injury and the organs and systems adaptations to inflammation.
5. Differentiate between a functioning and nonfunctioning immune system.
6. Compare and contrast normal physiologic and abnormal pathophysiologic adaptation of various organs and systems across the lifespan.
7. Analyze symptoms, laboratory data, other measures of function, and knowledge of pathophysiological processes to formulate diagnostic hypotheses for clients across the lifespan

# ATTENDANCE REQUIREMENTS:

For the online class attendance is reported by submission of weekly assignments on time for that week. Students who do not complete at least 50% of their lab (case studies) with a 70% or better can be failed. Students who complete less than 50% of their lab work (case studies) on time will automatically fail per the School of Math and Science regulations.

# PARTICIPATION POLICY:

important - Your attendance is based on discussions, case studies, quizzes, and two major exams.

Your classmates will depend on you to help construct an understanding of the material in the discussion board wikis. It is essential that you be in the classroom several times a week to truly participate. Failure to meet posted deadlines may result in a grade of zero. Any assignments that are accepted by the instructor after the due date will lose 10% of the grade per day (24hr period) unless previously arranged (deployment, documented illness) and then the agreed upon due date will apply. Submissions are time- stamped in Blackboard (discussion or assignments).

**Exams and quizzes will not be reopened!!!** Be sure to watch due dates and participation times and not miss deadlines.

All times and due dates will be US Central Time (CDT) as observed in the Great State of Texas 😊

**Case Studies constitute the ‘lab’ portion of our course. These are not the case studies in the textbook**. Rather they are an alternate component given to you in the Bb classroom.

You must complete the 5 required case studies to get credit for the lab. **This is 28% of your grade**. Failure to participate and complete the lab components of the course can result in automatic failure. **Two of the five case studies must be video presentations**. This involves using the YuJa video portal

uploading the assignment via YuJa. Students may do choose which case studies to be written or video per their preference ***after*** the first case study assignment which is written. Written assignments should be submitted in either Word or PDF format.

There may also be case studies that require you to interact with an AI “patient”.

# Statement on Generative AI for this course:Generative AI tools permitted in specific context and with proper citations.i. Students are allowed to use, reference, or incorporate generative AI tools into specific assignments for this course. When used, students must properly cite the generative AI tool in their submitted work.ii. While there is no true substitute for direct help and instruction for your instructor, students may be allowed to usegenerative AI tools to provide further explanations of course content, readings, and other assignments. Any use of generative AI tools to help further explain or translate content must be properly referenced and cited.iii. Specific parameters for generative AI usage are provided by the instructor.iv. Any use of generative AI tools outside of the approved instructor parameters will be considered a form of plagiarism and academic dishonesty.\*\*\* There may be at least 1 assignment that will require interactions with AI\*\*\*

# Disability Statement:

# In compliance with the Americans with Disabilities Act of 1990 (ADA), it is the policy of Wayland Baptist University that no otherwise qualified person with a disability be excluded from participation in, be denied the benefits of, or be subject to discrimination under any educational program or activity in the university. The Disability Services Coordinator and Academic Coach serves as the coordinator of students with disabilities and must be contacted concerning accommodation requests (office (806) 291-1057. Documentation of a disability must accompany any request for accommodations.

# ELEMENTS OF SUCCESS:

Pathophysiology is a course which builds on previous knowledge from Anatomy and Physiology, and cell biology. You must have a good foundation in those to be able to move quickly through the large amount of material covered in 8 weeks in this course. Taking an on-line pathophysiology course will require a firm commitment to learning and personal discipline in scheduling study and participation times. Although you will not be required to attend traditional lecture or laboratory sessions, you will be expected to understand through personal study the same concepts and terms required of students in the traditional lecture class. The advantage of an on-line course is the greater scheduling flexibility it

affords the student, but if you are not attentive to course assignments this will probably be reflected in a lower grade for the course. So, given the nature of on-line learning and the demands of the course, it would be wise to heed the following advice!

## TIME COMMITMENT -

This course has an extensive time commitment. I have set up a schedule by day/week to help you follow along and determine if you are on schedule. In this shorter session you must remain on top of the

course work as “catching up” is difficult. While WBUonline students have the benefit of flexibility in scheduling when they will review lecture and project materials, the content of this course is NOT reduced from the traditional format and will require AT LEAST the same level of effort as the in-class version of the course!

Therefore – to succeed in this course, students should be prepared to invest a MINIUM of 8 hours per week, with additional effort required to study for case study assignments, quizzes and exams.

## READ AND STUDY ASSIGNED BOOK CHAPTERS AND UTILIZE OTHER RESOURCES AS NEEDED.

Everyone learns in a little different manner. Some like audio, some text, some video, some write notes. I try to include a variety of resources in the classroom so you can choose what works best for you. You do not have to use every piece of content I place in the classroom. If powerpoints do nothing for you…skip those. Even though the on-line format precludes traditional lecture presentation of course material, this new textbook has some awesome embedded videos for understanding, and quick interactive questions. We are covering about 70 pages per week. May not sound like a lot, but the content is dense…makes you think, includes processes, and applied cases. Do the readings first and

early. DO NOT try to read and do assignments on a weekend only, or 2 times a week basis. There is just

too much to assimilate for understanding. Better to read on Sunday and Monday at the start of the week, and then do a little studying, discussion, reading, and concept mapping each day of the week.

## PARTICIPATE IN ALL CLASS Discussion

There will be many wiki questions posted on Blackboard in the discussion area for each chapter we study. These are designed to help you focus on major concepts and topics and to engage you in the learning process by sharing your discoveries and observations with your classmates and your professor. In order to effectively participate in the wikis, you will need to keep up with reading assignments. Your participation/discussion grade will be assigned based on the quality of your participation in posted wikis. You need to claim a question, respond with the answer, and cite references for full credit (10 points).

## QUIZZES –

Quizzes appear in the weekly folder on Tuesdays at noon and close on Sunday night at 11:59pm. There are a set of 6 questions displayed at any one time. You can take the quizzes over and over to get (1) the best score and (2) see all possible questions. The highest score is taken – so there is no penalty for opening, retaking, and looking at questions once you attain the score you want. Questions will also be viewable for test reviews. There is a quiz for each chapter (so usually 2 per week) and once closed (Sunday night) you will not be able to go back and retake or score on the quizzes.

## CASE STUDIES –

Case studies will begin in week 3 with a relatively simple case we will all work through together in discussion; and you will each post a final version in the format needed. Case studies are not in the textbook. They are attached in the classroom. Then every week (4-7) you will have a case to complete that is about the previous unit studied. For example, you study respiration in week 3 and do a case study on respiration during week 4 so you will have completed the concepts and quizzes and studied. **The case studies are due for that week and won’t be accepted late**. If you miss one for some reason, week 8 will allow you to submit one missed case, or do an extra credit one if you need the points. **Two**

**(2) of the 5 cases must be in video format submitted via YuJa.** You can do the video on your phone but must upload it into YuJa to submit; or record right in the YuJa interface in the classroom.

## COLLABORATING –

I am available for office hours, reviewing materials with groups or individuals at fairly flexible times. You will need to plan ahead so we can set up Collaborate in the classroom.

## DO NOT MISS DEADLINES FOR QUIZZES or PROCTORED EXAM –

There will be two exams given during the course. A Midterm early in Week 5, and a final on the last days of week 8. There will be at least 50 questions and some short answer and true/false, with matching of key terms in each test.

The ***Midterm and the Final will be given in a proctored environment***.

To set up a proctor on site, or remotely click on **Institutional tab** in Bb for info and links. Tests can be proctored 24/7 for $10 on your home computer with camera and microphone (like zoom/collaborate) with our Honorlock system.

Or you can use an on-site proctor – WBU staff proctors do not charge a fee, but you must set up an appointment.

NOTE that because of the nature of an on-line course, MAKE UP EXAMS WILL BE GIVEN ONLY UNDER THE MOST EXTENUATING CIRCUMSTANCES.

**No resources** may be used during either midterm or final exams. That means it is not open book and you can’t use the Internet. We all know when you are working a job, it might be OK to use your phone to check normals for lab values or check a fact – but when sitting with a patient you need to KNOW things to diagnose a problem. You don’t just peruse your phone. So the test has basic info on all pathology you should have in memory or be able to problem solve from your knowledge.

# COURSE EVALUATION AND GRADING:

The final grade in the course will be derived as follows:

|  |  |
| --- | --- |
| Quizzes - | 10% |
| Midterm | 25% |
| Proctored Final exam | 25% |
| Case Studies | 24% |
| Wiki / Discussion Boards | 16% |
| **University grading system**A 90-100B 80-89C 70-79D 60-69F below 60 I incompleteW withdrawal |  |

Students shall have protection through orderly procedures against prejudices or capricious academic evaluation. A student who believes that he or she has not been held to realistic academic standards, just evaluation procedures, or appropriate grading, may appeal the final grade given in the course by using the student grade appeal process described in the Academic Catalog. Appeals may not be made for advanced placement examinations or course bypass examinations. Appeals are limited to the final course grade, which may be upheld, raised, or lowered at any stage of the appeal process. Any recommendation to lower a course grade must be submitted through the Executive Vice President/Provost to the Faculty Assembly Grade Appeals Committee for review and approval. The Faculty Assembly Grade Appeals Committee may instruct that the course grade be upheld, raised, or lowered to a more proper evaluation.

# Important Dates

October 13 Fall 2 session begins

Oct. 20 Census Date (Last day to drop without record) (25% tuition refund) Nov 24-28 Thanksgiving Break – no assignments due

Nov 14 Last day to drop course w/ “W” (no tuition refund)

Dec 5 Last day to drop course w/ “WP/WF”

Dec 13 Last day of the session

\* Quizzes – Weekly - a few questions will be structure/function but concentrate on Alterations to normal physiology when studying and reviewing.

\*Midterm exam will be available Monday and Tuesday (11:59) at the start of week 5.

\*Final exam on Thursday - Saturday of the end of term (Week 8)

\*Case Studies - We will be doing case studies for the lab component of the course. These involve research, reading, a report in either written (Word or PDF) or video format.

# Schedule - Subject to change as needed

Approximately 2 chapters per week. Chapter one (Cellular function should have been covered in your prerequisite courses).

Week one (Chapters 2,3) Week 2 (Chapter 4)

Week 3 (Chapter 5)

Week 4 (chapters 6,7)

Week 5 [Midterm] then Chapter 8

Week 6 (Chapters 9, 10)

Week 7 (Chapters 11 and 12)

Week 8 (Chapters 13 and 14) and [Final]