

Spring 2-1-2019

# BIOH 462.01: Principles of Medical Physiology

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**BIOH462: Principles of Medical Physiology Syllabus Spring 2019****Instructor: Laurie Minns, PhD**

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**General Course Information**

This course provides a study of human physiology through the presentation of normal physiology, supplemented with discussion of selected diseases and pathophysiological conditions. Emphasis is placed upon correlating normal physiology with potential dysfunctions by increasing the learners' foundational knowledge of basic physiological principles and by introducing students to common laboratory tests and measures. Students will interpret and analyze case histories in pathophysiology and perform written assignments.

For the Graduate Increment, graduate students will be required to give a 40 minute class presentation on a topic of their choice. Graduate students are strongly encouraged to present their thesis or professional paper research project. This presentation must include a review of the peer-reviewed literature on the topic and will be in the form of a powerpoint presentation.

**Text Book Information**

Grossman, SC and Porth, CM. Porth's Pathophysiology: Concepts of Altered Health States, 9<sup>th</sup> edition. 2014. ISBN 978-1-4511-4600-4

Bruyere, HJ. 100 Case Studies in Pathophysiology. . Lippincott Williams & Wilkins, Philadelphia, 2009. ISBN 978-0-7817-6145-1 (optional)

**Supplementary Readings****Writing Course Learning Outcomes**

- Use writing to learn and synthesize new concepts
- Formulate and express written opinions and ideas that are developed, logical, and organized
- Compose written documents that are appropriate for a given audience or purpose
- Revise written work based on constructive feedback
- Find, evaluate, and use information effectively and ethically
- Begin to use discipline-specific writing conventions
- Demonstrate appropriate English language usage

**Upper-division Writing Requirement in the Major Outcomes:** Upon completing the upper-division writing requirement, students should be more active, confident, and effective contributors to a body of knowledge and should understand the ethical dimensions of inquiry. Upon completing the upper-division writing requirement, the student should be able to:

**Learning Outcomes**

- Identify and pursue more sophisticated questions for academic inquiry
- Find, evaluate, analyze, and synthesize information effectively from diverse sources
- Manage multiple perspectives as appropriate

- Recognize the purposes and needs of discipline-specific audiences and adopt the academic voice necessary for the chosen discipline
- Use multiple drafts, revision, and editing in conducting inquiry and preparing written work
- Follow the conventions of citation, documentation, and formal presentation appropriate to Biology
- Develop competence in information technology and digital literacy

### **BIOH462 Course Core Objectives**

- Demonstrate a fundamental understanding of the basic biophysical principles underlying the function of the human body.
- Relate normal physiological principles with the mechanisms of pathogenesis and disease.
- Interpret the relationship between cellular function and whole organ physiology.
- Integrate the relationship(s) between the control systems involved in regulating the major organ systems of the human body.
- Interpret and analyze underlying pathophysiology from case reports and discuss current treatments and their mechanism of action.
- Effectively perform scientific literature searches and discuss pertinent changes in the scientific landscape as it pertains to medical physiology.
- Analyze disease processes, their mechanism of action and how treatment options affect the disease at a cellular, organ, and organismal level.
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### **Course Format**

BIOH462 will have an interactive component as students analyze and discuss case histories in pathophysiology. Primary scientific literature and patient case studies will be incorporated into course material and students are expected to think critically about the diseases and syndromes presented during class. Assessments will be based on two major writing assignments (including a revision of the final paper), quizzes and homework, a final powerpoint presentation and class participation. The writing component will consist of critically analyzing a patient case history of a disease process. A revision assignment will expand on the first assignment and will further incorporate a review of the current treatment options of that disease or syndrome based on a survey of the current scientific literature.

### **Course Requirements**

The study of human form and function requires exposure to the material from a practical as well as a theoretical approach. Consequently, regular attendance at all lecture classes is recommended to successfully complete this course. You must also accept the responsibility to ask questions if you do not understand the concepts. If absence from lecture is necessary due to illness, it is your responsibility to obtain notes from another student.

### **Peer review meetings:**

During four regularly scheduled class times, BIOH365 students will critique each others' assignments and provide written and verbal feedback. 15% of the student's total grade will be based on the amount and quality of participation during these peer-review meetings.

### Evaluation Methods

The following evaluation methods will be used to assess student performance in BIOH462:

Type of Assessment	Percent of Total Grade
Research Summary: Congenital and Genetic Disorder (2 pages.)	5
Research Summary: Leukemia/Lymphoma/Cancer (2 pages)	5
Case Study Peer-review #1: Case Study Summary (2-3pages)	5
Case Study Peer-review #2: Differential Diagnosis (2-3pages)	15
Case Study Peer Review #3: First Draft of Final Paper (5-6 pages.)	5
Case Study Peer review#4: Mechanism of Action/Recommended Treatment (2-3pages.)	20
Case Study: Final Paper (revision) (8-10pages.)	
Final Power point Presentation	20
Class participation	20
<b>Total</b>	<b>100%</b>

### Grading System

Grades will be calculated based upon the following system:

- A ≥ 90%
- B ≥ 80%
- C ≥ 70%
- D ≥ 60%
- F < 60%

Please note that the grades for BIOH462 are not assessed by a plus/minus (+/-) grading system.

### Research summaries and writing workshops:

Students will complete assignments and quizzes both in class and through the course website (Moodle). Students are encouraged to download free reference management software so that they can learn to 'cite while they write'.

Details regarding the homework assignments will be given during class and MUST be submitted through Moodle. Students must also bring in a paper copy of the first draft of the final paper and participate in the writing workshop.

### Class Participation:

Students are expected to regularly attend and participate in class. Attendance is mandatory.

**More than 2 unexcused absences will result in the drop of 1 letter grade.**

**Late Work policy:** Work submitted 10 minutes-24 hours past the deadline will be graded but the final grade on that assignment will be out of 50% of the points available for the assignment. A grade of 0 will be assigned for any work submitted more than 24 hours past the deadline. Instructor feedback on late work will be at the discretion of the instructor.

**Writing Assignments:**

Students will complete several small writing assignments and two major writing assignments during the semester. The major writing assignments account for 35% of the final grade.

**Writing Outcomes:**

1. Students will analyze a patient case study of a pathophysiologic disease or syndrome
2. Students will discuss the laboratory tests used to evaluate the patient and relate their meaning to normal and abnormal human physiology
3. Students will review and discuss current and future disease processes by evaluating current scientific and clinical trial literature.
4. Students will use standard scientific format, including incorporating an abstract, tables that present test results, and citing references using standard scientific methods.
5. Students will learn to use reference-formatting software to cite while they write.

**Writing assignment Rubrics/Instructions are located at the end of this syllabus.**

**Makeup Work/Extra credit**

Absolutely no makeup work or extra credit is available. If students miss a quiz or an assignment during class, there is no opportunity to make-up the work. If students miss in class discussion/peer feedback, that work cannot be made up. Student attendance and active participation is expected.

**Computers and Course Website Information:**

Students are expected to be familiar with computers and the Internet. Students are responsible for their own software and computer equipment maintenance and setup as recommended by the University of Montana. [Link to Computer labs](#) or <http://www.umt.edu/it/services/computerlabs/default.php>

**Class-Specific Computer Requirements:**

- Students are expected to download copies of course information from the Moodle website and to check email for class announcements.
- Students must have access MS word or use another program to generate .doc or .docx files to be submitted for grading.
- It is possible to complete the assignments without cite while you write software such as Endnote and Reference Manager, but this method is not recommended.
- The University of Montana maintains several computer labs on campus:
- Students are encouraged to bring laptops, tablets or mobile devices to class to look up current medical research during in-class discussions. Students not using these devices specifically for course content will be asked to leave the class and will need to request instructor permission to return.
- For technical support for using Moodle, please contact [UM IT support](#), or (<http://umonline.umt.edu/tech-support/>)

**Dr. Minns follows academic policies as stated in the 2018-2019 UM Catalog**

Students are responsible for being familiar with [these policies](#) (<http://www.umt.edu/catalog/academics/academic-policy-procedure.php>).

These policies include but are not limited to:

- Student Conduct
- Class attendance
- Credit/No Credit Grading: Credit/No Credit grading is NOT AVAILABLE for this class.

- Audit
- Incomplete Grading Policy
- Plagiarism: All student work will be inspected for evidence of plagiarism.
- Plagiarism is the representing of another's work as one's own. It is a particularly intolerable offense in the academic community and is strictly forbidden. Students who plagiarize may fail the course and may be remanded to Academic Court for possible suspension or expulsion. (See Student Conduct Code section of this catalog.)
- Students must always be very careful to acknowledge any kind of borrowing that is included in their work. This means not only borrowed wording but also ideas. Acknowledgment of whatever is not one's own original work is the proper and honest use of sources. Failure to acknowledge whatever is not one's own original work is plagiarism.

### Students with Disabilities:

Students with disabilities may request reasonable modifications by contacting me. The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students. "Reasonable" means the University permits no fundamental alterations of academic standards or retroactive modifications.

**Location:** All lecture classes are taught in HS 207 from 12:30am- 1:50 PM. Students are expected to refer to the assigned readings from Porth's Pathophysiology to gain a better understanding of key disease processes. Students are welcome to bring their lunch or snacks to eat during this class (but please be respectful of other class members in your lunch choices).

**Lecture/Discussion Schedule** (Dr. Minns may revise the detailed lecture schedule to address class needs).

Week of course	Monday	Readings Porth
Jan. 14	Review Syllabus and Course Policies Concepts of Health and Disease Cell Function and growth Cellular Adaptation, Injury and Death Case Study Assignments	2-11 64-100
Jan. 21 (no class on 1/21 due to MLK day)	Peer-reviewed journal articles, Introduction to performing Literature searches. Genetic Control of Cell Function	118-137
Feb. 4	Cellular Adaptation, injury and death Leukemia, Lymphoma or Cancer Summary Discussions and cancer treatment discussions	101-117
Feb. 11	Neoplasia  Leukemia, Lymphoma or Cancer Summary Discussions and cancer treatment discussions	160-201; 638-711
Feb. 18 (no class 2/18 due to President's Day)	Neoplasia Treatments: Mechanisms of action	160-201
Feb. 25	Differential Diagnoses	Supplemental readings

March 4	Inflammation, Tissue repair and wound healing / implications of cancer treatment	306-328
March 11	Cancer treatment Options: Molecular mechanisms	Supplementa I Reading
March 18	Drug Design and Efficacy based on Mechanism of Action Studies Development of new treatments Clinical Trial versus Standard of Care Ethical Considerations	Supplementa I Reading
March 25	Spring Break- no classes!	
April 1	Effective Presentations	Supplementa I Reading
April 8	Student Power point Presentations	
April 15	Student Power point presentations	
April 22	Student Power point presentations	
April 30 (finals week) 3:20pm-5:20pm	Student Power point Presentations	

**Summary of Peer-Reviewed Assignments and Specific Writing Outcomes and due dates; all assignments are due by 11:55pm MST on the date indicated.**

<b>Assignment</b>	<b>Submit Draft to Peers via Moodle</b>	<b>In class Session</b>	<b>Due to Dr. Minns in Moodle for Grading</b>
<b>Genetic or congenital summary due</b> (writing topics: evaluating sources, summarizing important information)			Jan. 23, 2019
<b>#1: Case Study: Normal Physiology versus Pathophysiology summary</b> (Writing topics: finding credible sources: online sources, text book and peer-reviewed review article)	Monday Jan. 28	Wednesday Jan. 30	Monday Feb. 4
<b>Leukemia, Lymphoma or Cancer Summary</b> (writing topics: summarizing peer-reviewed journal articles)			Sun. Feb. 10th
<b>Cancer Treatment peer-reviewed paper</b> (writing topics: finding credible sources, summarizing information)- no written paper is due, just the peer reviewed journal article.			Sun. Feb. 10th
<b>#2: Case Study: Differential Diagnosis- summaries of two alternative diseases that could present with similar laboratory and clinical symptoms as your patient</b> (Writing topics: writing concisely and precisely; backing up claims with credible evidence and the use of in-text citations; using tables to summarize important information)	Tuesday Feb. 19th	Wednesday Feb. 20	Monday Feb. 25
<b>#3 Case Study: First draft of the final paper</b> (Writing topics: organization/transitions, section headers, writing an abstract)	Monday March 4th	Wednesday March 6th	M Monday March 11th
<b>#4 Case Study: Mechanism of Action of the recommended treatment and how the patient's prognosis will be affected</b> (Writing topics: summary of primary peer-reviewed journal articles, relating 'known' processes to newly emerging scientific studies, transitions and connections between related topics)	Monday March 18	Wednesday March 20	Sunday March 24
<b>Final Paper</b> (culmination of all writing topics)			Monday April 8th
<b>Powerpoint Slides</b> (writing topics: presenting complex data to audiences using pictures, graphics and slide layout)			Wednesday April 10th
<b>Final Powerpoint Presentation</b> (professionalism, speaking concisely and precisely, engaging the audience, handling audience questions)		Fill in your date →	

**Graded Assignment Rubrics:**

<b>Genetic or Congenital Disorder Summary Assignment Instructions:</b>			
<p>Select a peer-reviewed review article focused on a genetic or congenital disorder of your choice. In two pages (12 point font, 1.5 line spacing) describe the disorder, prevalence, risk factors, the inheritance pattern (if applicable), and the main points of the review article. Use the Porth text to help support your summary. Please include in-text citations and matching credible references. Please be sure to include an introduction and conclusion. Please focus on including a credible in-text citation with each fact presented and writing concisely and precisely.</p>		<p><b>(writing topics: evaluating sources, summarizing important information)</b></p>	
	<b>Available Points</b>	<b>Points Earned</b>	<b>Comments</b>
<p><b><u>Introduction</u></b> Name of disease and clinical manifestations Description of etiology, prevalence and risk factors associated with developing disease. Indicates whether disease is genetic or congenital and describes the difference between the two. If the disorder is genetic, provides information regarding the inheritance pattern.</p>	<b>1</b>		
<p><b><u>Pathophysiology</u></b> Effectively relates pathophysiology to normal physiology. Describes the research focus of the peer-reviewed journal selected.</p>	<b>1</b>		
<p><b><u>Conclusion</u></b> Discusses whether the Porth text is current. Discusses the relative credibility of each source of information.</p>	<b>1</b>		
<p><b><u>Referencing</u></b> Credible In-text citations and full length references. Must include both the review article and the Porth Textbook.</p>	<b>1</b>		
<p><b><u>Writing Mechanics</u></b> Responses demonstrate appropriate formatting, US English grammar and spelling.</p>	<b>0.5</b>		
<b><u>Original Paper Attached</u></b>	<b>0.5</b>		
<b>Total</b>	<b>5</b>		

<p align="center"><b>Leukemia, Lymphoma or Cancer Summary Assignment Instructions:</b></p> <p>Select a peer-reviewed primary research article focused on a leukemia, lymphoma or another cancer of your choice. In two pages (12 point font, 1.5 line spacing) describe the disorder, prevalence, risk factors, and the main point of your peer-reviewed journal article. Use the Porth text to help support your summary. Please include in-text citations and matching credible references. Please be sure to include an introduction and conclusion. Please focus on including a credible in-text citation with each fact presented and writing concisely and precisely.</p>		<p align="center"><b>(writing topics: summarizing peer- reviewed journal articles)</b></p>	
	<b>Available Points</b>	<b>Points Earned</b>	<b>Comments</b>
<p align="center"><b>Introduction</b></p> <p>Name of disease and clinical manifestations Description of etiology, prevalence and risk factors associated with developing disease.</p>	<b>1</b>		
<p align="center"><b>Pathophysiology</b></p> <p>Effectively relates pathophysiology to normal physiology. Describes the research focus of the peer-reviewed journal selected.</p>	<b>1</b>		
<p align="center"><b>Conclusion</b></p> <p>Discusses the prognosis of patients affected with the leukemia or lymphoma of choice.</p>	<b>1</b>		
<p align="center"><b>Referencing</b></p> <p>Credible In-text citations and full length references. Must include both the review article and the Porth Textbook.</p>	<b>1</b>		
<p align="center"><b>Writing Mechanics</b></p> <p>Responses demonstrate appropriate formatting, US English grammar and spelling.</p>	<b>0.5</b>		
<p align="center"><b>Original Paper Attached</b></p>	<b>0.5</b>		
<p align="center"><b>Total</b></p>	<b>5</b>		

<b>Case Study Activity #1 Summary of normal physiology versus the pathophysiology</b>			
Summarize the normal physiology and pathophysiology of the systems involved in the case study you selected. In doing so, you need to effectively paraphrase, use in-text citations and matching references from one credible online source, a peer-reviewed review article, the Porth text and a peer-reviewed primary research article.		<b>(Writing topics: finding credible sources: online sources, text book and peer-reviewed review article)</b>	
	<b>Available Points</b>	<b>Points Earned</b>	<b>Comments</b>
<b>Introduction</b> Briefly introduce the disease or syndrome.	<b>0.5</b>		
<b>Normal Physiology</b> Discuss the normal physiology of the systems affected by the disease or syndrome.	<b>1</b>		
<b>Pathophysiology</b> Discuss the pathophysiology of the systems affected by the disease or syndrome. Focus on the cellular or molecular abnormalities that result from the disease or syndrome.	<b>1</b>		
<b>Conclusion</b> Summarize how the pathophysiology results in the clinical manifestation of the disease or syndrome.	<b>0.5</b>		
<b>Paraphrasing and In-text citations.</b> Credible In-text citations and full length references. Must include at least: -1 credible online source -the Porth text book -1 peer-reviewed review article -1 peer reviewed primary research article	<b>1.5</b>		
<b>Writing Mechanics</b> Responses demonstrate appropriate formatting, US English grammar and spelling.	<b>0.5</b>		
<b>Total</b>	<b>5</b>		

<p><b>Case Study Activity #2: Differential Diagnosis</b>                  Differential Diagnosis- Write a 1.5-2 page paper (12 point font, 1.5 line spacing) summaries of two alternative diseases that could present with similar laboratory and clinical symptoms as your case study patient. Focus on writing concisely and precisely; backing up claims with credible evidence and the use of in-text citations and using tables to summarize important information.</p>			(Writing topics: writing concisely and precisely using evidence; summarizing with tables.
	<b>Available Points</b>	<b>Points Earned</b>	<b>Comments</b>
<p style="text-align: center;"><b><u>Introduction</u></b>                  Briefly introduce the disease symptoms, clinical and laboratory data associated with your case study.</p>	<b>0.5</b>		
<p><b><u>Use of Tables to Summarize important laboratory and clinical data.</u></b> Provide a summary of the pertinent clinical and laboratory information from your patient. Information should be summarized in a table (if applicable) and discussed briefly in paragraph form.</p>	<b>1</b>		
<p style="text-align: center;"><b><u>Differential Diagnosis #1</u></b>                  Discuss the pathophysiology of the systems affected by the disease or syndrome. Focus on the cellular or molecular abnormalities that result from the disease or syndrome.</p>	<b>1</b>		
<p style="text-align: center;"><b><u>Differential Diagnosis #2</u></b>                  Discuss the pathophysiology of the systems affected by the disease or syndrome. Focus on the cellular or molecular abnormalities that result from the disease or syndrome.</p>	<b>1</b>		
<p style="text-align: center;"><b><u>Conclusion</u></b>                  Effectively rules out the differential diagnoses.</p>	<b>0.5</b>		
<p style="text-align: center;"><b><u>Paraphrasing and In-text citations.</u></b>                  Credible In-text citations and full length references. Must include at least:                  -1 credible online source                  -the Porth text book                  -1 peer-reviewed review article                  -2 peer reviewed primary research articles</p>	<b>0.5</b>		
<p style="text-align: center;"><b><u>Writing Mechanics</u></b>                  Responses demonstrate appropriate formatting, US English grammar and spelling.</p>	<b>0.5</b>		
<b>Total</b>	<b>5</b>		

**Case Study #3: First Draft of Final Paper (Combine and re-organize Case Study #1 and Case Study #2) Write a 5-6 page paper that describes your patient, their pertinent symptoms and clinical and laboratory information, provide at least two differential diagnoses, describe the pathophysiology of the disease, and the prognosis if the disease is not treated.**

	Available Points	Points Earned	Comments
<p><b>Abstract:</b>  <b>2-3 sentences describing background information</b>  <b>2-3 sentences discussing the important clinical and laboratory results</b>  <b>2-3 sentences discussing the patient's diagnosis</b>  <b>2-3 sentences discussing the patient's prognosis</b></p>	2		
<p><b>Introduction (1-1.5 pages)</b>  Describe the patient's history and how they presented to the medical facility  Describe the patient's lab results and why they are important in diagnosing the disease or syndrome</p>	3		
<p><b>Differential Diagnosis (1.5-2 pages)</b>  Briefly describe other diseases or syndromes (at least 2) that may lead to a similar clinical presentation  Describe how you arrived at the given diagnosis based on the patient's history and laboratory and test results and offer rationale for why your diagnosis is different than the two other possibilities outlined above.</p>	3		
<p><b>Pathophysiology versus normal physiology (1 page)</b>  Compare the pathophysiology to normal physiology in the patient.  What is the pathophysiology?</p>	3		

<p>How does the pathophysiology affect the body systems? What is the normal physiology?</p>			
<p><b>Summary (0.5-1page) :</b> Review the key clinical findings State the diagnosis based on the clinical findings Review the short-term and long term prognosis of the patient (without treatment).</p>	<p><b>1</b></p>		
<p><b>Paraphrasing and In-text citations. Credible In-text citations and full length references. Must include at least:</b> -1 credible online source -the Porth text book -1 peer-reviewed review article -4 peer reviewed primary research articles</p>	<p><b>3</b></p>		
<p><b>Writing Mechanics</b> Responses demonstrate appropriate formatting, US English grammar and spelling.</p>	<p><b>1</b></p>		
<p><b>Total</b></p>	<p><b>15</b></p>		
<p><b>Feedback:</b></p>			

**Case Study Activity #4: Mechanism of Action Summary**

Assignment Instructions:

Summarize at least one peer-reviewed journal article that details the mechanism of action of the selected treatment regimen for the case study disease or syndrome. The summary should be 1-2 pages long, 12 point font, 1.5 line spacing plus a reference page.

**Writing topics: critical thinking, integration of various credible sources.**

	Available Points	Points Earned	Comments
<p><b>Introduction</b> Briefly introduce the disease symptoms, clinical and laboratory data associated with your case study. Include the prevalence data.</p>	0.5		
<p><b>Summarize the Pathophysiology</b> (Please include the revised portion from the first draft of the final paper)</p>	1		
<p><b>Recommended Treatment</b> Describe the treatment regimen (key components, delivery mechanism, frequency, etc) What is the mechanism of action of the treatment regimen you are recommending? How does your recommended regimen specifically address the pathophysiology of the disease or syndrome? Why do you recommend your proposed treatment regimen? What are the long-term consequences of your recommended regimen? If these are not established, what can you predict based on your knowledge of the pathogenesis of the disease or syndrome and based on the mechanism of action of your proposed regimen What affects will treatment have on the patient's quality of life? What are the potential side effects of the treatment regimen? How does your recommendation relate to other accepted treatments? What are the ethical implications of your proposed treatment?</p>	1		

Be sure to address: quality of life, potential side effects, standard of care.			
<p style="text-align: center;"><b>Prognosis</b></p> <p>Describe the long-term consequences of your recommended regimen. If these are not established, what can you predict based on your knowledge of the pathogenesis of the disease or syndrome and based on the mechanism of action of your proposed regimen?</p>	<b>1</b>		
<p style="text-align: center;"><b>Conclusion</b></p> <p>Summarizes why the treatment strategy proposed is appropriate for the specific patient</p>	<b>0.5</b>		
<p style="text-align: center;"><b><u>Paraphrasing and In-text citations.</u></b></p> <p>Credible In-text citations and full length references. Must include at least: -1 credible online source -the Porth text book -1 peer-reviewed review article -1 peer reviewed primary research articles</p>	<b>0.5</b>		
<p style="text-align: center;"><b><u>Writing Mechanics</u></b></p> <p>Proper writing mechanics. Writing concisely and precisely.</p>	<b>0.5</b>		
<b>Total</b>	<b>5</b>		

<b>Case Study Final paper</b>			<b>Due Date</b>
<p>Instructions: Please write an 8-10 page paper that describes your patient, their pertinent symptoms and clinical and laboratory information, provide at least two differential diagnoses, describe the pathophysiology of the disease, determine an appropriate treatment regimen and expected prognosis. This paper is a revision of the first draft of the paper with the addition of the treatment strategy and updated prognosis.</p>			
	<b>Available Points</b>	<b>Points Earned</b>	<b>Comments</b>
<p><b>Abstract:</b>            2-3 sentences describing background information            2-3 sentences discussing the important clinical and laboratory results            2-3 sentences discussing the patient's diagnosis            2-3 sentences describing the recommended treatment regimen            2-3 sentences discussing the patient's prognosis</p>	<b>2</b>		
<p><b>Introduction (1-1.5 pages)</b>            Describe the patient's history and how they presented to the medical facility            Describe the patient's lab results and why they are important in diagnosing the disease or syndrome</p>	<b>3</b>		
<p><b>Differential Diagnosis (1.5-2 pages)</b>            Briefly describe other diseases or syndromes (at least 2) that may lead to a similar clinical presentation.            Appropriate use of a table to rule in or rule out the final diagnosis.            Describe how the final diagnosis was determined based on the patient's history and laboratory and test results and offer rationale for why your diagnosis is different than the two other possibilities outlined above.</p>	<b>3</b>		
<p><b>Pathophysiology versus normal physiology (1 page)</b>            Compare the pathophysiology to normal physiology in the patient.            What is the pathophysiology?            How does the pathophysiology affect other body systems?            What is the normal physiology?</p>	<b>3</b>		
<p><b>Recommended treatment regimen and ethical considerations (2 pages)</b>            Describe the treatment regimen (key</p>	<b>5</b>		

<p>components, delivery mechanism, frequency, etc)                  What is the mechanism of action of the treatment regimen you are recommending?                  How does your recommended regimen specifically address the pathophysiology of the disease or syndrome?                  Why do you recommend your proposed treatment regimen?                  What are the long-term consequences of your recommended regimen?                  If these are not established, what can you predict based on your knowledge of the pathogenesis of the disease or syndrome and based on the mechanism of action of your proposed regimen                  What affects will treatment have on the patient's quality of life?                  What are the potential side effects of the treatment regimen?                  How does your recommendation relate to other accepted treatments?                  What are the ethical implications of your proposed treatment?</p>			
<p><b>Summary (0.5-1page) :</b>                  Review the key clinical findings                  State the diagnosis based on the clinical findings                  Review the short-term and long term prognosis with and without the recommended treatment regimen</p>	<p>1</p>		
<p><b>Credible In-text citations and full length references.</b> Must include at least:                  -1 credible online source                  -the Porth text book                  -1 peer-reviewed review article                  -5 peer reviewed primary research articles</p>	<p>1</p>		
<p><b>Writing Mechanics</b>                  Responses demonstrate appropriate formatting, US English grammar and spelling.</p>	<p>2</p>		
<p><b>Total</b></p>	<p><b>20</b></p>		

<b>Final Powerpoint Presentation Assignment Instructions:</b> Final Power point Presentation (10 points for the power point slide deck, 10 points for the class presentation). Students will prepare and present a 15 minute presentation (plus 2-3 minutes for questions) of their case study.	<b>Comments</b>	<b>Max points</b>	<b>Your points</b>
<p style="text-align: center;"><b><u>Title Slide</u></b></p> <ul style="list-style-type: none"> <li>· Professional slide appearance</li> <li>· Title Slide contains name</li> <li>· Title Slide contains Academic affiliation</li> <li>· Title slide contains date</li> </ul>		<b>1</b>	
<p style="text-align: center;"><b><u>Introduction</u></b></p> <ul style="list-style-type: none"> <li>· Effectively describes the patient's history and how they presented to the medical facility</li> <li>· Used pictures and graphic effectively.</li> <li>· Effectively described the patient's lab results and explained how they are important in diagnosing the disease/syndrome.</li> <li>· Effectively uses 2-3 slides for the introduction.</li> </ul>		<b>2</b>	
<p style="text-align: center;"><b><u>Differential Diagnosis</u></b></p> <ul style="list-style-type: none"> <li>· Effectively summarizes at least two different possible diagnoses</li> <li>· Effectively uses pictures or graphics to describe the points.</li> <li>Appropriate use of a Table to Run in or Rule out DD</li> <li>· Identifies the appropriate diagnosis</li> <li>· Effectively summarizes the key physiological consequences of the diagnosis</li> <li>· Differential diagnosis fits in 3-4 slides.</li> </ul>		<b>2</b>	
<p style="text-align: center;"><b><u>Recommended treatment Regimen (2-3 slides)</u></b></p> <ul style="list-style-type: none"> <li>· Effectively describes an adequate treatment regimen by identifying the key components</li> <li>· Effectively describes the mechanism of action of the recommended treatment regimen.</li> <li>· Effectively describes the short-term, long term and ethical considerations of the recommended treatment regimen.</li> <li>-Describes whether the treatment is standard of care or it is an experimental treatment and considers how this treatment approach is ethical for the given patient.</li> </ul>		<b>2</b>	
<p style="text-align: center;"><b><u>Prognosis (1-2 Slides)</u></b></p> <ul style="list-style-type: none"> <li>· Effectively describes the patient's prognosis based on the diagnosis and severity of the disease (both with and without treatment).</li> </ul>		<b>2</b>	
<p style="text-align: center;"><b><u>Summary</u></b></p> <p>Words used are precise, unambiguous and used appropriately. There is an appropriate tone for the assignment The referencing was appropriate Ability to effectively address student questions</p>		<b>1</b>	
<b><u>Presentation and Professionalism</u></b>		<b>10</b>	
	<b>Total</b>	<b>20</b>	