Course Prefix and Number: RSTH 226  
Credit Hours: 2

Course Title: Clinical Seminar

Course Prerequisites: successful completion of prior Fall semester courses

Textbooks: DesJardins, T.; Cardiopulmonary Anatomy and Physiology, latest edition  
Wesley, K.; Huszar’s Basic Dysrhythmias and Acute Coronary Syndromes

Course Description:
This course explores the effects of certain body states on cardiopulmonary physiology,  
explores hemodynamics, and prepares the student to analyze various clinically significant ECGs  
for rhythm disturbances.

Learning Outcomes:

At the end of this course the student will

A. demonstrate the ability to interpret ECG results in order to determine appropriate  
   medical intervention; identify causative agents and/or conditions relative to the  
   dysrhythmia;
B. interpret hemodynamic monitoring results from invasive diagnostics, including CVP,  
PAP, CO, CI; recommending a diagnosis and treatment for abnormal results;
C. recognize 12-lead ECG electrode placement and views which each imply; and
D. identify the implications of certain life-threatening dysrhythmias and appreciate the  
   ACLS protocol associated with such.

To achieve the learning outcomes, the student will

1. identify various components of 12 lead ECG equipment necessary for running the  
diagnostic test. (A)
2. interpret abnormalities from example (lead II) ECGs, highlighting heart rate, rhythm,  
   normal and abnormal ECG complexes, and other components of individual rhythm strips.  
   (A)
3. describe general events within the four phases of a typical cardiac cell action potential.  
   (A)
4. summarize the pathway of the normal electrical conduction system of the heart and  
   contrast that to abnormal electrical conduction. (A)
5. identify various cardiac rhythms. (A)
6. discuss clinical presentation and treatment modalities for specific abnormal cardiac  
rhythms. (A)
7. describe various pulmonary arterial catheter mechanics, attributes, and troubleshooting.  
   (B)
8. identify normal versus abnormal hemodynamic values from invasive diagnostics (i.e. CVP, PAP, CO, CI, etc) measurements. (B)
9. define and describe the following measurements: BP, CVP, PAP, CO, and CI. (B)
10. explain differences in pulse strength, force, and rhythm (A)
11. perform a 12-lead ECG (A)
12. analyze BP and CVP (B)
13. interpret a Lead II ECG, differentiating regularity and artifacts (B)
14. recognize normal and abnormal on hemoximetry (B)
15. explain stress testing procedures along with indication and implications of the test (B)
16. outline steps of arterial line insertion (B)
17. assess fluid status of a patient using hemodynamic parameters (B)
18. select proper medicines during ACLS protocol (B)
19. predicts need for cardioversion or transcutaneous pacing based on hemodynamic/ECG parameters (A, B)
20. describe, in general normal and abnormal heart sounds (A, B)
21. recognize and interpret jugular venous distention and peripheral edema (B)
22. define and discuss the importance of multiple hemodynamic values or measurements. (A,B)
23. discuss the effects of pulmonary circulation. (A,B)
24. discuss the factors that can alter hemodynamic status. (A,B)
25. define and discuss the impact of renal failure on the cardiopulmonary system and treatments (C)
26. discuss the effects of aging on the cardiopulmonary system (C)
27. discuss the effects of exercise on the cardiopulmonary system (C)

Course Requirements: To earn a grade of “C” or higher the student must earn 70% of the total points for the course and meet all of the following course requirements.

- minimum average of 70% overall in the course

Course Grading Scale:

A- 90-100% of total possible points
B- 80-89% of total possible points
C- 70-79% of total possible points
D- 60-69% of total possible points
F- less than 60% of total possible points

Attendance Policy: The college attendance policy, which is available at http://www.bpcc.edu/catalog/current/academicpolicies.html, allows that “more restrictive attendance requirements may apply to some specialized classes such as laboratory, activity, and clinical courses because of the nature of those courses.” The attendance policy of the Respiratory Therapy program is described in the Respiratory Therapy Clinical Handbook.
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Reviewed by T. Gilmore/ May 2017