INSTRUCTOR SYLLABUS/ COURSE OUTLINE



Instructor:	Richard W. Lippert	Office Hours:	As Posted
Telephone:	724-325-6884 / 724-964-6731 (text)		
E-Mail Address:	rlippert@ccac.edu		L

Class Section(s) Time & Location:

Section	Dates	Days	Time	Room
BC01	1/17 - 5/15	M/W	08:00-9:40AM	
			00.00-3.40AM	N-544

This Course Outline has been reviewed and approved by:

Neil R. Jones, M.Ed., NREMT-P Paramedic Program Director

The

Thomas Stein, M.D.

Program Medical Director

Course Number:

PAM-103 BC 01

Course Title:

Cardiology and Pulmonology

Course Credits:

5

Lecture hours:

Lab hours:

2

Other hours:

Pre-requisite(s):

BIO-110, BIO-161, PAM-101, PAM-102 & PAM-112

Co-requisite(s):

BIO 162, PAM-104, PAM-105 & PAM-116

Course Description: This course covers cardiology and pulmonology for the paramedic, involving interpretation of cardiac rhythms, treatment protocols and assessment and intervention of respiratory deficiencies. Emphasis is placed on identifying EKG rhythms and using patient assessment information.

Learning Outcomes: Upon successful completion of the course, the student will:

- 1. Describe components in a normal EKG tracing and correlate to activity in the cardiac cycle.
- 2. Identify abnormal EKGs including tachycardias, bradycardias, AV blocks, atrial rhythms, ventricular rhythms, premature contractions, paced rhythms and asystole in both 3-lead and 12-lead format.
- 3. Demonstrate proper electrode placement and technique to obtain 3-lead and 12-lead EKG readings.
- 4. Apply rhythm interpretation and select proper treatment interventions for various cardiac dysrhythmias.
- 5. Demonstrate ability to use cardiac monitor/defibrillators to deliver appropriate therapeutic electrical interventions.
- 6. List treatment for various cardiovascular conditions.

INSTRUCTOR SYLLABUS/ COURSE OUTLINE CCAC

Instructor:	Richard W. Lippert	Office Hours:	As Posted
Telephone:	724-325-6884 / 724-964-6731	Office Location:	Boyce Campus N-306
	(text)		
E-Mail Address:	rlippert@ccac.edu		

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BC01	1/17 - 5/15	M/W	08:00-9:40AM	N-544

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 Neil R. Jones, M.Ed.,NREMT-P
 Date
 Thomas Stein, M.D.
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 Paramedic Program Director
 Program Medical Director

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Course Credits: 5

Lecture hours: 4 Lab hours: 2 Other hours:

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- 4. Apply rhythm interpretation and select proper treatment interventions for various cardiac dysrhythmias.
- 5. Demonstrate ability to use cardiac monitor/defibrillators to deliver appropriate therapeutic electrical interventions.
- 6. List treatment for various cardiovascular conditions.

- 7. Classify respiratory system dysfunctions and proper treatment interventions.
- 8. Utilize pulse oximetry and capnography to assess respiratory system function.
- 9. Describe V/Q mismatch and appropriate interventions.
- 10. Apply paramedic pharmacology to cardiac and pulmonary conditions.

A student completing the lecture portion of this course with a letter grade of "C" or better will be able to:

- 1. Describe risk factors related to cardiovascular disease.
- 2. Understand the basic structure and function of the cardiovascular system.
- 3. Identify the major normal and abnormal heart sounds.
- 4. Describe the cardiac cycle, including diastole and systole.
- 5. Identify the various types of blood vessels.
- 6. Explain how the heart functions as a pump, including the concepts of cardiac output, stroke volume, heart rate, and ejection fraction.
- 7. Understand how electrical conduction activity occurs within the heart.
- 8. Understand how the autonomic nervous system controls the functioning of the heart.
- 9. Identify the various classes of drugs that influence the sympathetic nervous system.
- 10. Understand how the sympathetic nervous system regulates blood pressure.
- 11. Explain patient assessment procedures for cardiovascular problems, including scene size-up, primary assessment, history taking, secondary assessment, and reassessment.
- 12. Recognize the medications commonly prescribed to patients with cardiovascular diseases.
- 13. Describe the placement of leads and electrodes in 3-lead ECG monitoring.
- 14. Identify the components of an ECG rhythm strip.
- 15. Understand how to determine heart rate.
- 16. Describe the placement of 12-lead ECG leads.
- 17. Describe the placement of 15- and 18-lead ECG leads.
- 18. Understand how to interpret 12-lead ECG findings, including atrial, junctional, and ventricular rhythms.
- 19. Recognize normal sinus rhythm, and list the various types of cardiac dysrhythmias.
- 20. Discuss manual defibrillation, cardioversion, and transcutaneous pacing as techniques for managing cardiac emergencies.
- 21. Understand the indications and procedure for operating an automated external defibrillator (AED).
- 22. Describe emergency medical care for the symptomatic patient with bradycardia.
- 23. Describe emergency medical care for the symptomatic patient with tachycardia.
- 24. Describe emergency medical care for the patient with cardiac arrest, including the elements of basic life support (BLS) and advanced cardiac life support (ACLS).
- 25. Describe the components of care following resuscitation, including how to determine return of spontaneous circulation.
- 26. Describe the pathophysiology of atherosclerosis, peripheral vascular disorders, acute coronary syndrome, and angina pectoris.
- 27. Discuss the assessment and management of coronary disease and angina.
- 28. List the signs and symptoms of acute myocardial infarction (AMI).
- 29. Explain the procedure for managing AMI and suspected AMI in the field, including STEMI and non-STEMI presentations.
- 30. Understand the benefits of reperfusion techniques (fibrinolysis and percutaneous intervention) in patients with AMI or suspected AMI.
- 31. Discuss the pathophysiology of congestive heart failure and its signs, symptoms, and treatment.
- 32. Discuss the pathophysiology of cardiac tamponade and its signs, symptoms, and treatment.
- 33. Discuss the pathophysiology of cardiogenic shock and its signs, symptoms, and treatment.
- 34. Describe the pathophysiology, assessment, and management of aortic aneurysms, including both acute dissecting aneurysm of the aorta and expanding and ruptured abdominal aortic aneurysms.
- 35. Discuss the pathophysiology of hypertensive emergencies and their signs, symptoms, and treatment.
- 36. Describe the risks posed by thromboembolism.
- 37. Identify types of congenital heart disease.
- 38. Describe the pathophysiology of hypertrophic cardiomyopathy.
- 39. Describe the pathophysiology of other cardiovascular anomalies: coarctation of the aorta, truncus arteriosus, tricuspid atresia, hypoplastic left heart syndrome, tetralogy of Fallot, transposition of the great arteries, and total anomalous pulmonary venous return.

- 40. Describe how infections—endocarditis, pericarditis, and rheumatic fever—can damage the heart.
- 41. Discuss the epidemiology, morbidity, and mortality of respiratory illness in the United States.
- 42. Define hypoventilation and hyperventilation, and outline the conditions with which they are often associated.
- 43. List the structures of the upper and lower airways and accessory structures of the respiratory system.
- 44. List the three primary functions of the respiratory system.
- 45. Explain how gas exchange occurs at the interface of the alveoli and the pulmonary capillary bed.
- 46. Analyze the neurologic, cardiovascular, muscular, and renal mechanisms of respiratory control.
- 47. Analyze proper measures for ensuring scene safety when called to care for a patient with dyspnea.
- 48. Describe the factors that contribute to a general impression of the patient's condition and an accurate estimation of his or her degree of respiratory distress.
- 49. Discuss the typical presentation of a patient with dyspnea, and list the signs and symptoms that indicate a high level of respiratory distress.
- 50. Explain the special patient assessment and care considerations for older adult patients with respiratory distress.
- 51. Identify breathing alterations that may indicate respiratory distress, and become familiar with the signs of increased work of breathing.
- 52. Describe the abnormal breathing patterns associated with neurologic insults that depress the respiratory center in the brain.
- 53. Become familiar with the signs of lung consolidation, including abnormal breath sounds associated with excessive fluid in the lungs.
- 54. Explain how to assess the adequacy of the circulation of a patient with dyspnea.
- 55. Discuss how transport decisions are made for patients with respiratory distress.
- 56. Describe how to investigate the chief complaint of a patient who is having trouble breathing.
- 57. Identify each component of the SAMPLE history as it applies to patients with dyspnea.
- 58. List the over-the-counter medications likely to be used by patients with respiratory conditions, and explain what each is used for.
- 59. Describe the components of the physical examination of a patient with dyspnea.
- 60. Survey the devices used to monitor patients with respiratory complaints.
- 61. Describe interventions available for treating patients with dyspnea.
- 62. Discuss the pathophysiology, assessment, and management of a patient whose upper airway has an anatomic or foreign body obstruction.
- 63. Discuss the pathophysiology, assessment, and management of a patient who has upper airway inflammation caused by infection.
- 64. Discuss the pathophysiology, assessment, and management of a patient who has aspirated food, liquid (including blood), or a foreign body.
- 65. Discuss the pathophysiology, assessment, and management of a patient with an obstructive lower airway disease.
- 66. List and explain the three features that characterize asthma and how each is treated.
- 67. Compare the signs and symptoms of asthma, emphysema, and chronic bronchitis.
- 68. Discuss complications that can cause a patient with COPD to decompensate.
- 69. Explain the concepts of hypoxic drive and auto-PEEP as they relate to COPD.
- 70. Discuss the pathophysiology, assessment, and management of patients with pulmonary infections, atelectasis, cancer, toxic inhalations, pulmonary edema, and acute respiratory distress syndrome.
- 71. Discuss the pathophysiology, assessment, and management of patients with pneumothorax, pleural effusion, and pulmonary embolism.
- 72. Describe age-related variations in respiratory anatomy and the pathophysiology of respiratory disease.
- 73. Discuss the importance of the American Heart Association's five links of the Chain of Survival to a successful code.
- 74. Describe the management acronym SMART and each of its objectives.
- 75. Describe how progressive communities can improve survival of prehospital cardiac arrest patients.
- 76. Discuss the use of simulation in CPR training.
- 77. Discuss some of the revisions made by the American Heart Association (AHA) and International Liaison Committee on Resuscitation (ILCOR) to the Emergency Cardiovascular Care (ECC) and CPR guidelines.
- 78. Describe how you, your crew, and your agency can incorporate the latest guidelines into the

- management of field codes.
- 79. Discuss some of the theories that have shifted the focus of certain CPR techniques.
- 80. Summarize the steps of the BLS healthcare provider algorithm and identify the key to a successful outcome in patients with cardiac arrest.
- 81. Explain how two-rescuer CPR can benefit the paramedic and the patient.
- 82. Explain the steps in providing two-rescuer adult CPR, including the method for switching positions during the process.
- 83. Identify the various age groups of infants and children for the purposes of resuscitation procedures and equipment.
- 84. Explain the steps in providing child and infant CPR, including the method for switching positions during the process.
- 85. Discuss guidelines for circumstances that require the use of an automated external defibrillator (AED) on both adult and pediatric patients experiencing cardiac arrest.
- 86. Describe situations in which manual or automated defibrillation would be appropriate.
- 87. Summarize how to perform manual defibrillation on an adult and child/infant.
- 88. Summarize how to use an automated external defibrillator.
- 89. Describe how to manage a witnessed arrest versus a nonwitnessed arrest.
- 90. Explain special situations related to the use of automated external defibrillation.
- 91. Review the management of a cardiac arrest based on analysis of the electrocardiogram (ECG) as either a shockable (ventricular fibrillation or ventricular tachycardia) or a nonshockable (pulseless electrical activity or asystole) rhythm.
- 92. List the "Hs and Ts" and how they can be managed in the field.
- 93. Describe the different mechanical devices that are available to assist in delivering improved circulatory efforts during CPR.
- 94. Describe the general steps of postresuscitative care.
- 95. Describe the ethical issues related to patient resuscitation, providing examples of when not to start CPR on a patient.
- 96. Explain the various factors involved in the decision to stop CPR once it has been started on a patient.
- 97. Discuss the value of scene choreography at a field code.
- 98. Describe the typical roles of the code team leader and code team members at a field code.
- 99. Plan for a code by reviewing a sample script for a typical prehospital cardiac arrest resuscitation.

A student completing this course with a letter grade of "C" or better will be able to:

- Demonstrate how to assess and provide emergency medical care for a patient with chest pain or discomfort.
- 2. Demonstrate how to perform cardiac monitoring.
- 3. Demonstrate how to acquire a 12-lead ECG.
- 4. Demonstrate how to perform manual defibrillation.
- 5. Demonstrate how to perform defibrillation with an AED.
- 6. Demonstrate how to perform cardioversion.
- 7. Demonstrate how to perform transcutaneous cardiac pacing.
- 8. Demonstrate how to manage symptomatic bradycardia.
- 9. Demonstrate how to perform ACLS care.
- 10. Demonstrate how to perform postresuscitative care.
- 11. Demonstrate the process of history taking for a patient with dyspnea.
- 12. Demonstrate how to help a patient use a metered-dose inhaler.
- 13. Demonstrate how to teach a patient to use a small-volume nebulizer.
- 14. Demonstrate the application of a CPAP/BiPAP unit.
- 15. Demonstrate how to perform one- and two-rescuer adult CPR.
- 16. Demonstrate how to perform CPR in a child who is between age 1 year and the onset of puberty.
- 17. Demonstrate how to perform CPR in an infant who is between ages 1 month and 1 year.
- 18. Demonstrate how to perform manual defibrillation in an adult patient.
- 19. Demonstrate how to perform manual defibrillation in an infant or child.
- 20. Demonstrate how to manage a patient in ventricular fibrillation or ventricular tachycardia.
- 21. Demonstrate how to manage a patient in asystole or pulseless electrical activity.
- 22. Demonstrate the steps of postresuscitative care.
- 23. Demonstrate how to be committed to the success of the team.

24. Demonstrate the roles of the code team member and the code team leader.

Materials and Resources:

Required Text(s):	Emergency Care in the Streets – 7 th Edition Nancy Caroline/Jones & Bartlett Prehospital Emergency Pharmacology – 7th Edition; Bledsoe & Clayden/Prentice Hall
Required Materials:	ECG Measuring Calipers
Recommended Text(s):	N/A
Audio-Visual Materials:	N/A
Directed Study:	N/A
Open Lab, Tutoring, etc.	N/A

Teaching Methods:

This course is presented in a classroom environment, utilizing lecture, case studies, small group discussion and individual/group-work assignments. Students are expected to prepare for each class session by completing the reading assignments and any homework assigned. The student should check the Blackboard Announcements and Course Documents button for weekly information. The anticipated student preparation time required to be successful in this class is an average of 1-2 hours daily.

Evaluation Plan:

The Allied Health Department utilizes the following classroom grading system:

93% and above = A 86% - 92% = B 75% - 85% = C 65% - 74% = D 64% and below = F

- Core Content Quizzes (260 points possible): One quiz per week maximum, 13 quizzes- 20 points each.
 - These are given through Blackboard and are timed Quizzes.
 - Quizzes will be announced through Blackboard and will be opened for a 36 hour period.
 - Quizzes that are missed may be made-up with a 10% penalty assessed.
- Medication Quizzes (260 points possible): As indicated in the course outline. 12 quizzes- 15 points each.
 - These are given through Blackboard and are timed Quizzes.
 - Quizzes will be opened at 07:00 on Wednesday's on the assigned week and will close at 08:00 Thursday (the next day).
 - Quizzes that are missed may be made-up with a 10% penalty assessed.
- Video Cardiac Patient Assessment: (50 points possible)
- Exam 1 (100 points possible): Covering Chapter 17 (up through Pg. 964) and assigned medications
- Exam 2 (100 points possible): Covering Chapter 17 (primarily Pgs. 964 1035) and assigned medication
- Exam 3 (100 points possible): Covering Chapter 16 and assigned medication
- Final Exam (150 points possible): Covering Chapters 16-17 and assigned medications

Other Policies and Procedures:

1. Attendance Policy

Students are expected to attend all didactic sessions, to be prompt and to remain in the classroom for the entire scheduled time. Students are responsible for all information, materials and skills presented at didactic sessions. Students may miss a maximum of 4 didactic sessions. For every session missed over 4, the student's letter grade will be reduced each time.

2. Assignment Information

All due dates for all assignments are listed in the Course Plan contained in this document. Quizzes will not be announced in advance. The Exam Schedule is listed in the Course Plan.

3. Special Accommodations

It is the student's responsibility to inform the instructor of this course their needs for special accommodations. The student must also provide proper and current documentation from CCAC's Supportive Services for Students with Disabilities department with what specific accommodations are necessary. This information and required documentation must be presented to the instructor no later than the end of Week One (1) of the semester.

4. Course Success

- Complete assignments on time as written in the course outline.
- Studying every day (1-2 hour average).
- Communicating regularly with course instructor if you have a problem.

5. Assessment of Student Learning

CCAC has a college-wide assessment program, the purpose of which is the improvement of instruction and student learning. Course outcomes, program objectives and the general education goals (Communication, Technology Competency, Information Literacy, Critical Thinking and Problem Solving, Quantitative and Scientific Reasoning, Culture and Society) will be assessed. As a student, you should focus on the goals, objectives and learning outcomes of your courses and program of study to help you analyze your performance and make your learning most effective. It is always CCAC's goal to have students' function at their fullest capacity.

6. Additional Policies and Procedures

All students are required to adhere to the policies and procedures contained in the current CCAC Student Handbook. This includes but is not limited to the policies regarding cheating and plagiarism. In addition, all PAM students are required to adhere to the Paramedic Program Policies and Procedures contained in the Fall 2014 Manual. This manual may be updated as needed throughout your PAM Program; if updated, students will be provided with the revised copy.

7. Non-Discrimination Policy

CCAC does not discriminate based upon race, color, religion, national origin, ancestry or place of birth, sex, gender identity or expression, sexual orientation, disability, marital status, familial status, veteran status, age or use of a guide or support animal because of blindness, deafness or physical disability of any individual. Questions may be emailed to diversity@ccac.edu.

Drop/ Add/ Withdrawal

Notifying the instructor of your intention to drop or withdraw does NOT count as an official withdrawal from a course. Procedures for drop/add/withdrawal can be found at www.ccac.edu/registration-services/. Students receiving financial assistance through grants, loans, and veterans benefits should consult with the Financial Aid or Military and Veterans Service Center before dropping, adding, or withdrawing from class. Students' aid may be impacted by a change to the total number of credits in which the student is enrolled, or by receiving a W grade in one or more classes.

Consult the Academic Calendar on MyCCAC portal for these important deadline dates. Note that courses that do not meet within the standard 16- and 14-week terms have unique drop/withdrawal deadlines. Failure to process these forms with the Registration office by the published deadline may result in F grades and have financial consequences.

Students with Disabilities:

The Community College of Allegheny County makes every effort to provide reasonable accommodations for students with disabilities. Questions about services and procedures for students with disabilities should be directed to the Office of Supportive Services at your campus.

Title IX Notification

Know your rights as a student. Title IX, the Clery Act and the SaVE Act prohibits sexual harassment, sexual misconduct and acts of sexual violence, including sexual assault, domestic violence, dating violence, and stalking. See the complete policy and how to report at https://www.ccac.edu/nondiscrimination/.

MyCCAC Portal and Academic Email

The MyCCAC portal provides access to all course, grade and administrative information at https://my.ccac.edu. All email correspondence regarding your academic work is to be conducted to and from your CCAC academic email account.

Access your course information, email, Student Handbook, incident reporting and college services at:

https://my.ccac.edu

Course Outline Corrections:

During the semester/session, reasonable changes to the course outline may be academically appropriate. Students will be notified of these adjustments by the instructor in a timely manner.

Course Plan: PAM 103 Section: BC01 Cardiology and Pulmonology

Class Week/Date	Lesson or Topic	Learning Activities	Assignments	Evaluation
1 Jan 17-23	Anatomy and Physiology Caroline: Chapter 7 Pgs. 240 – 255 Cardiovascular Emergencies Caroline: Chapter 17 Pgs. 908 – 918	Chapter 17: YOU are the Medic: Parts 1- 2		
	LAB Adult CPR			
2 Jan 24-Jan 30	Cardiovascular Emergencies Caroline: Chapter 17 Pgs. 918 – 927 LAB Adult CPR and Obstructed Airway Skill Drill 4: Performing Defibrillation With an AED (Caroline: 996)			
3 Jan 31-Feb 6	Cardiovascular Emergencies Caroline: Chapter 17 Pgs. 927 – 936 LAB Infant CPR and Obstructed Airway	Chapter 17: YOU are the Medic: Part 3 Bledsoe/Clayden Student must know medication name, mechanism of action, indications, contraindications, complications, routes of administration, side effects, interactions, dose and any specific administration considerations	Bledsoe/Clayden - Appendix B Medication Quiz #1 Norepinephrine – Pg. 465 Phenylephrine – Pg. 137 Isoproterenol – Pg. 452 Dopamine – Pg. 439	

	Cardiovascular Emergencies Caroline: Chapter 17	Chapter 17: YOU are the Medic: Part 4		
	Pgs. 936 – 946	Bledsoe/Clayden	Bledsoe/Clayden - Appendix B	
4	LAB	Student must know medication	Medication Quiz #2	
Feb 7-13	Skill Drill 1: Performing	name, mechanism of action,	Dobutamine – Pg. 438	
	Cardiac Monitoring	indications, contraindications,	Inamrinonel – Pg. 450	
	(Caroline: 938)	complications, routes of	Milrinone – Pg. 460	
	Skill Drill 2: Acquiring a	administration, side effects,	Vasopressin – Pg. 479	
	12-Lead ECG (Caroline:	interactions, dose and any specific		
	967)	administration considerations		
	Cardiovascular	Bledsoe/Clayden	Bledsoe/Clayden - Appendix B	
	Emergencies			
	Caroline: Chapter 17	Student must know medication	Medication Quiz #3	
5	Pgs. 947 – 964	name, mechanism of action,	Propranolol – Pg. 471	
Feb 14-20		indications, contraindications,	Sotalol HCL – Pg. 476	
1 60 14-20	Review	complications, routes of	Metoprolol – Pg. 458	
		administration, side effects,	Labetalol – Pg. 453	
	LAB	interactions, dose and any specific		
	ECG Interpretation	administration considerations		
	Exam 1	Bledsoe/Clayden	Bledsoe/Clayden - Appendix B	Exam 1 - 100 points Covering Chapter 17
	Cardiovascular	Student must know medication	Medication Quiz #4	up through Pg. 964
6	Emergencies	name, mechanism of action,	Atenolol – Pg. 152	
Feb 21-27	Caroline: Chapter 17	indications, contraindications,	Esmolol – Pg. 443	
1 60 21-21	Pgs. 964 – 990	complications, routes of	Lidocaine – Pg. 454	
		administration, side effects,	Procainamide – Pg. 470	
	LAB	interactions, dose and any specific		
	ECG Interpretation	administration considerations		

	Cardiavasaular	Diadasa/Claydan	Diadaga/Claydan Annandiy D	
	Cardiovascular	Bledsoe/Clayden	Bledsoe/Clayden - Appendix B	
	Emergencies			
	Caroline: Chapter 17	Student must know medication	Medication Quiz #5	
	Pgs. 964 – 990	name, mechanism of action,	Adenosine – Pg. 425	
		indications, contraindications,	Verapamil – Pg. 480	
7	LAB	complications, routes of	Diltiazem – Pg. 436	
Feb 28-	ECG Interpretation	administration, side effects,	Amiodarone – Pg. 428	
March 6	Skill Drill 3: Performing	interactions, dose and any specific		
	Manual Defibrillation	administration considerations		
	(Caroline: 994)			
	Skill Drill 5: Performing			
	Cardioversion (Caroline:			
	998)			
	/	Bledsoe/Clayden	Bledsoe/Clayden - Appendix B	
	Cardiovascular			
	Emergencies	Student must know medication	Medication Quiz #6	
	Caroline: Chapter 17	name, mechanism of action,	Phenytoin – Pg. 468	
	Pgs. 990 – 1011	indications, contraindications,	Edrophonium – Pg. 440	
	1 93. 556 1011	complications, routes of	Magnesium Sulfate – Pg. 455	
8	LAB	administration, side effects,	Atropine – Pg. 431	
March 7-13	ECG Interpretation	interactions, dose and any specific	All opine – 1 g. 431	
	Skill Drill 6: Performing	administration considerations		
	Transcutaneous Pacing			
	(Caroline: 1000)			
	Child CPR and			
	Obstructed Airway	Diada a /Olavida a	Diadasa/Olaydan Angandiy D	
	Cardiovascular	Bledsoe/Clayden	Bledsoe/Clayden - Appendix B	
	Emergencies	Ctudent movet les eur mandientiers	Madiantian Ovie #7	
	Caroline: Chapter 17	Student must know medication	Medication Quiz #7	
	Pgs. 1011 - 1035	name, mechanism of action,	Digoxin – Pg. 436	
9	LAB	indications, contraindications,	Heparin – Pg. 446	
March 14-20	LAB	complications, routes of	Enoxaparin – Pg. 440	
	ECG Interpretation	administration, side effects,	Clopidogrel – Pg. 434	
	Administering Sublingual	interactions, dose and any specific		
	Nitroglycerin	administration considerations		
	Cardiac Arrest			
	Management			

10 March 21- March 27	Review Chapter 17 Exam 2 LAB ECG Interpretation Cardiac Arrest Management	Chapter 17: Prep Kit	Chapter 17: Assessment in Action – Pg. 1035	Exam 2 - 100 points Covering Chapter 17, primarily Pgs. 964 - 1035
11 March 28- April 3	Anatomy and Physiology Caroline: Chapter 7 Pgs. 232 – 240 Respiratory Emergencies Caroline: Chapter 16 Pgs. 850 – 863 LAB ECG Interpretation Skill Drill 12: Assisting Metered-Dose Inhaler (Caroline 530) Skill Drill 13: Administering Med via Nebulizer (Caroline 532)	Chapter 16: YOU are the Medic: Parts 1- 2 Bledsoe/Clayden Student must know medication name, mechanism of action, indications, contraindications, complications, routes of administration, side effects, interactions, dose and any specific administration considerations	Bledsoe/Clayden - Appendix B Medication Quiz #8 Abciximab – Pg. 424 Eptifibatide – Pg. 442 Tirofiban – Pg. 479 Streptokinase – Pg. 477	
12 April 4 – 10	Respiratory Emergencies Caroline: Chapter 16 Pgs. 863 – 880 LAB ECG Interpretation Skill Drill 11: Using CPAP (Caroline: 765)	Chapter 16: YOU are the Medic: Part 3 Bledsoe/Clayden Student must know medication name, mechanism of action, indications, contraindications, complications, routes of administration, side effects, interactions, dose and any specific administration considerations	Bledsoe/Clayden - Appendix B Medication Quiz #9 Anistreplase – Pg. 429 Alteplase – Pg. 426 Tenectplase – Pg. 191 Reteplase – Pg. 472	
April 10-16		Mid-Term	Break	

Course Plan: PAM 103 Section: BC01 Cardiology and Pulmonology

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3 Jan 31-Feb 6	Cardiovascular Emergencies Caroline: Chapter 17 Pgs. 927 – 936 LAB Infant CPR and Obstructed Airway	Chapter 17: YOU are the Medic: Part 3 Bledsoe/Clayden Student must know medication name, mechanism of action, indications, contraindications, complications, routes of administration, side effects, interactions, dose and any specific administration considerations	Bledsoe/Clayden - Appendix B Medication Quiz #1 Norepinephrine – Pg. 465 Phenylephrine – Pg. 137 Isoproterenol – Pg. 452 Dopamine – Pg. 439	

	Cardiovascular Emergencies Caroline: Chapter 17	Chapter 17: YOU are the Medic: Part 4		
	Pgs. 936 – 946	Bledsoe/Clayden	Bledsoe/Clayden - Appendix B	
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	(Caroline: 938)	complications, routes of	Milrinone – Pg. 460	
	Skill Drill 2: Acquiring a	administration, side effects,	Vasopressin – Pg. 479	
	12-Lead ECG (Caroline:	interactions, dose and any specific		
	967)	administration considerations		
	Cardiovascular	Bledsoe/Clayden	Bledsoe/Clayden - Appendix B	
	Emergencies			
	Caroline: Chapter 17	Student must know medication	Medication Quiz #3	
5	Pgs. 947 – 964	name, mechanism of action,	Propranolol – Pg. 471	
Feb 14-20		indications, contraindications,	Sotalol HCL – Pg. 476	
1 60 14-20	Review	complications, routes of	Metoprolol – Pg. 458	
		administration, side effects,	Labetalol – Pg. 453	
	LAB	interactions, dose and any specific		
	ECG Interpretation	administration considerations		
	Exam 1	Bledsoe/Clayden	Bledsoe/Clayden - Appendix B	Exam 1 - 100 points Covering Chapter 17
	Cardiovascular	Student must know medication	Medication Quiz #4	up through Pg. 964
6	Emergencies	name, mechanism of action,	Atenolol – Pg. 152	
Feb 21-27	Caroline: Chapter 17	indications, contraindications,	Esmolol – Pg. 443	
1 60 21-21	Pgs. 964 – 990	complications, routes of	Lidocaine – Pg. 454	
		administration, side effects,	Procainamide – Pg. 470	
	LAB	interactions, dose and any specific		
	ECG Interpretation	administration considerations		

	Cardiavasaular	Diadasa/Claydan	Diadaga/Claydan Annandiy D	
	Cardiovascular	Bledsoe/Clayden	Bledsoe/Clayden - Appendix B	
	Emergencies			
	Caroline: Chapter 17	Student must know medication	Medication Quiz #5	
	Pgs. 964 – 990	name, mechanism of action,	Adenosine – Pg. 425	
		indications, contraindications,	Verapamil – Pg. 480	
7	LAB	complications, routes of	Diltiazem – Pg. 436	
Feb 28-	ECG Interpretation	administration, side effects,	Amiodarone – Pg. 428	
March 6	Skill Drill 3: Performing	interactions, dose and any specific		
	Manual Defibrillation	administration considerations		
	(Caroline: 994)			
	Skill Drill 5: Performing			
	Cardioversion (Caroline:			
	998)			
	/	Bledsoe/Clayden	Bledsoe/Clayden - Appendix B	
	Cardiovascular			
	Emergencies	Student must know medication	Medication Quiz #6	
	Caroline: Chapter 17	name, mechanism of action,	Phenytoin – Pg. 468	
	Pgs. 990 – 1011	indications, contraindications,	Edrophonium – Pg. 440	
	1 93. 556 1011	complications, routes of	Magnesium Sulfate – Pg. 455	
8	LAB	administration, side effects,	Atropine – Pg. 431	
March 7-13	ECG Interpretation	interactions, dose and any specific	All opine – 1 g. 431	
	Skill Drill 6: Performing	administration considerations		
	Transcutaneous Pacing			
	(Caroline: 1000)			
	Child CPR and			
	Obstructed Airway	Diada a /Olavida a	Diadasa/Olaydan Angandiy D	
	Cardiovascular	Bledsoe/Clayden	Bledsoe/Clayden - Appendix B	
	Emergencies	Ctudent movet les eur mandientiers	Madiantian Ovie #7	
	Caroline: Chapter 17	Student must know medication	Medication Quiz #7	
	Pgs. 1011 - 1035	name, mechanism of action,	Digoxin – Pg. 436	
9	LAB	indications, contraindications,	Heparin – Pg. 446	
March 14-20	LAB	complications, routes of	Enoxaparin – Pg. 440	
	ECG Interpretation	administration, side effects,	Clopidogrel – Pg. 434	
	Administering Sublingual	interactions, dose and any specific		
	Nitroglycerin	administration considerations		
	Cardiac Arrest			
	Management			

10 March 21- March 27	Review Chapter 17 Exam 2 LAB ECG Interpretation Cardiac Arrest Management	Chapter 17: Prep Kit	Chapter 17: Assessment in Action – Pg. 1035	Exam 2 - 100 points Covering Chapter 17, primarily Pgs. 964 - 1035	
11 March 28- April 3	Anatomy and Physiology Caroline: Chapter 7 Pgs. 232 – 240 Respiratory Emergencies Caroline: Chapter 16 Pgs. 850 – 863 LAB ECG Interpretation Skill Drill 12: Assisting Metered-Dose Inhaler (Caroline 530) Skill Drill 13: Administering Med via Nebulizer (Caroline 532)	Chapter 16: YOU are the Medic: Parts 1- 2 Bledsoe/Clayden Student must know medication name, mechanism of action, indications, contraindications, complications, routes of administration, side effects, interactions, dose and any specific administration considerations	Bledsoe/Clayden - Appendix B Medication Quiz #8 Abciximab – Pg. 424 Eptifibatide – Pg. 442 Tirofiban – Pg. 479 Streptokinase – Pg. 477		
12 April 4 – 10	Respiratory Emergencies Caroline: Chapter 16 Pgs. 863 – 880 LAB ECG Interpretation Skill Drill 11: Using CPAP (Caroline: 765)	Chapter 16: YOU are the Medic: Part 3 Bledsoe/Clayden Student must know medication name, mechanism of action, indications, contraindications, complications, routes of administration, side effects, interactions, dose and any specific administration considerations	Bledsoe/Clayden - Appendix B Medication Quiz #9 Anistreplase – Pg. 429 Alteplase – Pg. 426 Tenectplase – Pg. 191 Reteplase – Pg. 472		
April 10-16	Mid-Term Break				

	Respiratory Emergencies Caroline: Chapter 16 Pgs. 880 – 888	Chapter 16: YOU are the Medic: Part 4		
13 April 18-24	LAD	Bledsoe/Clayden	Bledsoe/Clayden - Appendix B	
	LAB ECG Interpretation	Student must know medication	Medication Quiz #10	
	Respiratory and Cardiac	name, mechanism of action,	Sodium Bicarbonate – Pg. 474	
,	Patient Management	indications, contraindications,	Furosemide – Pg. 445	
		complications, routes of	Bumetanide – Pg. 431	
		administration, side effects,	Calcium Chloride – Pg. 432	
		interactions, dose and any specific		
	Decimate w. Emanya a sia a	administration considerations	Chartes 4C: Accessment in	
	Respiratory Emergencies Caroline: Chapter 16	Chapter 16: Prep Kit	Chapter 16: Assessment in Action – Pg. 907	
	Pgs. 888 – 907		Action – Pg. 907	
	1 gs. 000 307	Bledsoe/Clayden	Bledsoe/Clayden - Appendix B	
4.4	LAB		достольный драгина	
14 April 25- May	ECG Interpretation	Student must know medication	Medication Quiz #11	
April 23- May	Respiratory and Cardiac	name, mechanism of action,	Nesiritide – Pg. 461	
'	Patient Management	indications, contraindications,	Nicardipine – Pg. 462	
		complications, routes of	Clevidipine – Pg. 433	
		administration, side effects,	Nifedipine – Pg. 462	
		interactions, dose and any specific administration considerations		
	Exam 3	Bledsoe/Clayden	Bledsoe/Clayden - Appendix B	Exam 3 - 100 points
		2.00000/Clayuo.i	2. Stade of Glay active promains 2	Covering Chapter 16
	Review Chapters 16 & 17	Student must know medication	Medication Quiz #12	
15		name, mechanism of action,	Enalaprilat – Pg. 440	
May 2-8	LAB	indications, contraindications,	Captopril – Pg. 432	
	ECG Interpretation	complications, routes of	Sodium Nitroprusside – Pg. 475	
	Respiratory and Cardiac Patient Management	administration, side effects, interactions, dose and any specific	Hydralazine – Pg. 447	
	i auciil manayement	administration considerations		
10		adeu duori dorioladi duorio		Final Exam - 150
16 Mov 0 15	Final Exam Week			points Covering
May 9-15				Chapters 16-17

	Respiratory Emergencies Caroline: Chapter 16 Pgs. 880 – 888	Chapter 16: YOU are the Medic: Part 4		
13 April 18-24		Bledsoe/Clayden	Bledsoe/Clayden - Appendix B	
	LAB			
	ECG Interpretation	Student must know medication	Medication Quiz #10	
	Respiratory and Cardiac	name, mechanism of action,	Sodium Bicarbonate – Pg. 474	
	Patient Management	indications, contraindications,	Furosemide – Pg. 445	
		complications, routes of	Bumetanide – Pg. 431	
		administration, side effects,	Calcium Chloride – Pg. 432	
		interactions, dose and any specific		
		administration considerations		
	Respiratory Emergencies	Chapter 16: Prep Kit	Chapter 16: Assessment in	
	Caroline: Chapter 16 Pgs. 888 – 907		Action – Pg. 907	
		Bledsoe/Clayden	Bledsoe/Clayden - Appendix B	
14	LAB			
April 25- May	ECG Interpretation	Student must know medication	Medication Quiz #11	
1	Respiratory and Cardiac	name, mechanism of action,	Nesiritide – Pg. 461	
'	Patient Management	indications, contraindications,	Nicardipine – Pg. 462	
		complications, routes of	Clevidipine – Pg. 433	
		administration, side effects,	Nifedipine – Pg. 462	
		interactions, dose and any specific		
		administration considerations		
	Exam 3	Bledsoe/Clayden	Bledsoe/Clayden - Appendix B	Exam 3 - 100 points Covering Chapter 16
	Review Chapters 16 & 17	Student must know medication	Medication Quiz #12	
15		name, mechanism of action,	Enalaprilat – Pg. 440	
May 2-8	LAB	indications, contraindications,	Captopril – Pg. 432	
	ECG Interpretation	complications, routes of	Sodium Nitroprusside – Pg. 475	
	Respiratory and Cardiac	administration, side effects,	Hydralazine – Pg. 447	
	Patient Management	interactions, dose and any specific		
		administration considerations		Final Exam - 150
16	Final Exam Wook			
May 9-15	I IIIai Laili Week			ı ·
	Final Exam Week			points Covering Chapters 16-17