

Jackson College
Emergency Medical Services Department
Paramedic Technology: Cardiology II

Primary Instructor Coordinator: Chad Rodgers, MPA, EMT-P, I/C

Email: rodgerscr@gmail.com

Phone: (517) 403-2596

Class Days/Times: Thursday: 1:00pm-2:50pm (Lecture)

Classroom: HLC 211

Total Credits: 2.25 credit hours

This course is approved by the MDHHS Program Approval Number: P-10-0015

Course Description

This is a course designed to provide knowledge in cardiology to fulfill the needs of the Paramedic program. This course involves medical procedures and use of equipment as stated by the U.S. Department of Transportation, Michigan Department of Community Health, and the American Heart Association Advanced Cardiac Life Support standards. Topics include rapid interpretation of EKGs, static recognition of EKGs, electrical therapy, pharmacological therapy, and basic algorithms for treatment of cardiac arrhythmias.

Course Goals

This course is designed to provide knowledge in cardiology to fulfill the needs of the AEMT (Paramedic) program. This course involves medical procedures and use of equipment as stated by the U.S. Department of Transportation, Michigan Department of Community Health, and the American Heart Association Advanced Cardiac Life Support standards. Topics include pathophysiology of heart disorders, 12 lead EKG interpretation, pediatric ACLS, pharmacological therapy.

Course Prerequisite

Department approval

Concurrent enrollment in EMS 170, 172, 174, 1700, & 1701.

BIO 155 or BIO 253 & BIO 254 (must be completed before the end of the program)

Course Objectives

At the completion of this program you should be able to:

Relate the anatomy to the pathophysiology of the cardiovascular system.

Relate the anatomy to the pathophysiology of the cardiac conduction system.

Define the principals of electro-cardiology

Apply the assessment principles specific to a patient with cardiovascular complaints.

Relate the pathophysiology, defining characteristics, clinical presentation, and management of cardiac rhythms.

Demonstrate the management principles of the cardiovascular patient.

List a systematic approach to dysrhythmia interpretation

Demonstrate the management of cardiac dysrhythmias as recommended by the current AHA ACLS guidelines.

Recall key EKG interpretation criteria for diagnosing EKG rhythms.

Recall key EKG interpretation criteria for diagnosing 12 lead EKG rhythms.

Jackson College Education Goals

The course goals and objectives incorporate specific General Education Outcomes (GEOs) established by the JC Board of Trustees, administration, and faculty. These goals are in concert with four-year colleges, universities, and reflect input from the professional communities we serve. GEOs guarantee students achieve goals necessary for graduation credit, transferability, and professional skills needed in many certification programs.

Required Texts

Sanders Paramedic Textbook 5th edition, ISBN13: 978128414782, Jones & Bartlett Learning

Advanced Cardiac Life Support Provider Manual (2015 Guidelines)

Basic Arrhythmias, 8th Edition: Gail Walraven

Pharmacology Applications Revised 1st Edition: Andrew N. Pollak

Text Book Zero – The textbook is available in a digital format and may be purchased in the bookstore

Suggested Texts

EMS Field Guide, Advanced or Critical Care version

Medical Dictionary

Nursing Drug Guide

Equipment and Uniforms

Paramedic shirt available through Pro Image Uniform (Regatta Blue in color)

Navy blue EMS slacks

Black polishable shoes

Black belt

Watch (with second hand)

Navy jacket (no logo) for clinical/internship and classroom use (no other jackets will be allowed)

JC Student ID badge is required to be worn clipped on the shirt or worn on a lanyard during class (lanyards not allowed on clinical/internship)

USB Flash Drive – storage amount at your discretion

NO baseball style hats are allowed at anytime

Lecture Tardiness

Any student missing more than 5 minutes, but less than $\frac{1}{4}$ of the class period will be considered tardy. The first tardy will result in a verbal warning. The second tardy will result in a written warning. At the third infraction, a full absence will be incurred. Chronic tardy or absence could prevent the student from a completion certificate and grounds for removal from the program. Any missing time will be recorded and counted towards the student's attendance.

Attendance

There are NO excused absences in this program. Due to the practically oriented nature of this program, as well as the repetition necessary to develop high-quality patient care skills, minimal hour requirements are set forth by the MDHHS program objectives. Any

student missing more than 6 HOURS total, in EMS 173, will be dismissed from the Paramedic Program and will not be eligible for the MDHHS course completion roster

Classroom Etiquette

For your benefit and for the benefit of your classmates follow appropriate classroom behavior:

At all times in class, the student must be considerate to your classmates and to your instructor.

Ask pertinent questions; contribute to discussions; avoid "private" conversations that distract the instructor and other students. You may be asked to leave if you are disturbing the class. Do not answer questions that are not directed to you. Allow the instructor to clarify the material.

No cell phone use is allowed during class (including texting). All ringers must be on silent.

No tobacco usage, in any form, will be allowed in the classroom. (JC is a tobacco-free campus)

No sleeping. Come to class fresh and ready to learn.

No laptop use permitted unless it is directly related to the classroom lecture or coursework. This would require prior permission by the instructor.

Concerns must be addressed outside of the classroom with the instructor by appointment, not voiced in the classroom. In the event the concerns cannot be solved with the instructor, a formal complaint must be brought to the attention of the program director. See the specific complaint process in your EMS handbook or go to the link below. <http://www.jccmi.edu/administration/deans/StudentComplaintProcess.htm>

The instructor's welcome student's questions and concerns. Please be considerate of their time outside of the classroom.

Food in the classroom is a privilege and will not be distracting or messy. Any mess left in the classroom or distracting behavior will result in the loss of the entire class's food privilege.

Jackson College program requirements for recommendation for the MDHHS completion roster

Students must obtain an 80% or better as an overall class grade in each EMS course.

Obtain at least an 80% on the final exam at the end of each course.

Students must successfully complete all practical exams for the course.

Students must successfully complete all required clinical hours, including hospital specialties and ambulance internship compliant with current contracts.

Students must show professional growth within the affective learning domain.

Students must meet the minimum required hours for both classroom and clinical as set forth by the JC Program.

Affective Domain Evaluations

Periodically through the clinical rotations and during class, the students will be subject to evaluation via the affective domain. This includes attitude, empathy, and overall professionalism. Any student receiving an overall negative affective domain evaluation will be given a written warning, and the instructor will schedule a meeting to review the form with the course coordinator and student. Steps for corrective action will be documented. This will result in possible disciplinary action up to and/or including dismissal from the rotation or program. During the scheduled time for review, the student will be removed from clinical rotations.

Classroom Lecture Grading Procedure

Written exams are cumulative over the course and will be graded and scored on the percentage of correct answers. They may consist of multiple-choice, true/false, and short

answer questions. There will be no late exams permitted. Tests will be administered in a secure environment and may be presented in the JC testing center. It is the student's responsibility to make accommodations to complete the test in the allotted time frame presented by the instructor. **Quizzes** may be online or in class and may be administered with a time restriction.

Students who do not officially withdraw from this course and/or receive an overall score below 80%, fail to take the final exam, fail to complete all clinical/internship requirements, or are deemed unsatisfactory in the affective domain will not be eligible for advancement within the Paramedic Program.

Method of Instruction

Any combination of the following: Lecture, handouts, class assignments, computer screen-projections, demonstrations, hands-on lab projects, recitation, frequent quizzing, group work, DVD/video tapes, case studies, field trips, simulation, computer- distance learning through Jet Net, and other projects.

Platinum Testing

The students will be issued authority to use the EMSCAT. Students may not in any way cut and paste, copy or reproduce the test questions. This is a copyright infringement. Students found reproducing this test material will be immediately dismissed from the program, and their information will be turned over to legal affairs and to the Platinum Education Group.

See academic honesty policy http://www.jccmi.edu/administration/deans/Student_Resources.htm

Test materials may be generated from any validated source or may be written by the JC EMS program and validated against the National Curriculum. Platinum quizzes and tests are monitored by the instructors. You are only allowed to access the quizzes/tests that you have been cleared to take.

Students with Disabilities

If there is a student in this class with a special need because of learning, physical, or other disability, contact the instructor(s) and Student Services immediately.

“Students with disabilities who believe that they may need accommodations in this class are encouraged to contact the office of Learning Support Services at 787-0800, extension 8270/8553 as soon as possible to ensure that such accommodations are implemented in a timely fashion.”

National Registry ADA Policy

Link: www.nremt.org/nremt/about/policy_accommodations.asp

JC Disclosure Policy: JC adheres to

FERPA <http://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html>

Changes in Syllabus

Schedule and course outline may change due to weather, illness, or extreme circumstance. Students will be notified in writing if course outline will change.

This syllabus may be adjusted at any time if the instructor(s) or Course Coordinator deems it necessary.

Wk.	Date	Pre-reading	Subject		Assignment
		Volume	Chapter	Pages	
1	1/17/2019	PHP	Appendix C	515-527	Review Basic Rhythms Welcome Back! 12 Lead ECG Introduction/Action Potential Review
2	1/24/2019	4	2	144-178	12-Lead ECG Introduction; Placement, Analysis Method (Rate, Regularity, Axis, Hypertrophy, Infarction)
3	1/31/2019	PHP	Appendix C & D	515-561	STEMI / Non-STEMI / Infarction, Ischemia, Strain, ST segment variations and causes
		4	2	144-178	
4	2/7/2019	PHP	Appendix C & D	515-561	Axis Deviation; Determination and Physiology
		4	2	144-178	
5	2/14/2019	PHP	Appendix C & D	515-561	Chamber Enlargement / Hypertrophy and Physiology
		4	2	144-178	
6	2/21/2019	PHP	Appendix C & D	515-561	Wide QRS / BBB and IVCD, Ventricular Disturbances
		4	2	144-178	
7	2/28/2019	PHP	Appendix C & D	515-561	Hemiblocks, Bifascicular-, and Trifascicular-blocks
		4	2	144-178	

8	3/7/2019	Mid-Term Exam		
	3/11-17	SPRING BREAK		
9	3/21/2019	Handouts	12 Leads Combined; 15 Lead and 18 Lead ECGs	
10	3/28/2019	Handouts	12 Leads Combined; 15 Lead and 18 Lead ECGs	
11	4/4/2019	Handouts	Interpretation II; Special Topic: Brugada Syndrome	
12	4/11/2019	Handouts	Interpretation III; Special Topic: WPW	
13	4/18/2019	Handouts	Interpretation IV: Special Topic: Hemiblocks	
14	4/25/2019	All Text Books	Comprehensive Cardiology Review	
15	5/2/2019	Cardiology II FINAL EXAM		

EMS 173 SYLLABUS

AKNOWLEDGEMENT AND AGREEMENT

I _____ (print name)

have read the syllabus and understand the requirements and expectations for this class. I also acknowledge that this class holds a high level of personal responsibility and accountability. I also realize this is a program that will require commitment and that specific standards must be met as outlined in this syllabus.

I may refer to links for the NREMT, MDHHS State Objectives, and the NHTS curriculum to complement the resources in my course textbooks.

I will be expected to access a computer to complete assignments and must utilize my JC student email account regularly for updates and additional information.

The instructor(s) may utilize various approved and validated testing banks and may also write their own test questions that will be verified to the MDHHS and NHTS objectives and curriculum.

It is my responsibility to seek assistance in the Center for Student Success and to notify the instructor(s) if help is needed or extreme circumstances have created hardship for me.

Date: _____

Signature: _____

I do not want to sign this agreement, however by initialing and dating below; I confirm receipt of the syllabus.

Date: _____

Student Initial: _____