

Updated 07/18/2023



WACO, TEXAS

**COURSE SYLLABUS
AND
INSTRUCTOR PLAN**

Cardiology

EMSP 2444_75

Justin Lawson

NOTE: This is a 16-week course.

NOTE: This is a Face-to-Face course.

Course Description:

A detailed study of the knowledge and skills necessary to reach competency in the assessment and management of patients with cardiac emergencies. (3 lecture/3 lab) Semester Hrs. 4

Prerequisites and/or Corequisites:

Co-requisites: EMSP 2430, 2237, 2305, 2164, 2162

Prerequisites: Student must complete EMSP 1161, EMSP 2137; EMSP 1438 (Introduction to Advanced Practice); EMSP 1455 (Trauma Management); EMSP 1456 (Patient Assessment and Airway Management); EMSP 2137 (Emergency Procedures); EMSP 2434 (Medical Emergencies); EMSP 2306 (Emergency Pharmacology); and contact Justin Lawson, (254) 299 – 6504 or jlawson@mclennan.edu for an advising appointment.

Course Notes and Instructor Recommendations:

Notification of changes to this syllabus will be made by instructor, email and/or Brightspace.

Instructor Information:

Instructor Name: Justin Lawson

MCC Email: jlawson@mclennan.edu

Office Phone Number: (254) 299-6504

Office Location: ESEC 117

Office/Teacher Conference Hours: By appointment

Other Instruction Information: Each student must be advised by the program director before he/she can be enrolled in this course.

Required Text & Materials:

Title: Understanding EKGs: a Practical Approach

Author: Brenda Beasley

Edition: 5th

Publisher: Pearson

ISBN: 978-0-13-521341-4

MCC Bookstore Website: <http://www.mclennan.edu/bookstore/>

Methods of Teaching and Learning:

Scenarios, case studies, and simulations included in this course assist the student to develop critical thinking skills in administering medications in the prehospital environment.

Course Objectives and/or Competencies:

At the completion of this course the student will be able to: integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the cardiac emergency patient. The student will:

1. Correctly identify the chambers of the heart including the valves located between cardiac chambers and great vessels;
2. Describe the properties of cardiac muscle and conductive tissues;
3. Differentiate the cellular properties of the SA node, the AV node, and the Bundle of HIS;
4. Outline the normal conduction of electrical impulses through the cardiac conduction system and the correlating EKG features;
5. Demonstrate the correct method of assessing a cardiac patient with: heart failure; angina; acute MI; and non-specific chest complaints.
6. Differentiate cardiac rhythm disturbances that originate in the atrial chambers versus A-V Nodal rhythms;
7. Correctly place cardiac leads (for a 12-lead EKG and 4-Lead placement) on a simulated patient and print a 12 – Lead EKG and a Lead two rhythm strip;
8. Identify the levels of A-V Nodal heart block and describe the characteristics and levels of severity of each;
9. Demonstrate the correct sequence of utilizing the external cardiac pacemaker and appropriate management for a patient with a high grade complete heart block;
10. Identify the EKG characteristics and correct treatment for each type of ventricular rhythm;
11. Outline the characteristics of acute coronary syndromes and the emergency treatment of each;
12. Correlate the correct pharmacological intervention in specific emergency situations;
13. Direct the treatment and resuscitation of the acute myocardial infarction patient who is acutely hypotensive;
14. Identify the EKG characteristics for life-threatening emergencies associated with right coronary occlusion;

15. Identify the EKG characteristics for life-threatening emergencies associated with left coronary occlusion;
16. Given a set of 20 12-Lead EKG's correctly identify the location of the acute myocardial infarction;
17. Given a set of 20 static rhythm strips correctly identify the rhythm disturbance @ 95% or higher accuracy;
18. Given a sequence of 15 dynamic cardiac rhythms correctly identify the rhythms and first two treatment interventions @ 95% or higher level of accuracy.

Course Attendance/Participation Guidelines:

If a student is not in attendance in accordance with the policies/guidelines of the class as outlined in the course syllabus as of the course census date, faculty are required to drop students from their class roster prior to certifying the respective class roster. A student's financial aid will be re-evaluated accordingly and the student will only receive funding for those courses attended as of the course census date.

In accordance with the class attendance policy of McLennan Community College, regular and punctual attendance is expected of all EMS students. Each absence (in a course) will count toward attendance requirements in each course.

1. Before the 60% point of the semester, a student who is absent for 20% or more of a face-to-face will be withdrawn from the course with a grade of W. A student may also request to be withdrawn with a grade of W before the 60% point of the semester. After the 60% point of the semester, the student may request to be withdrawn (decided on a case-by-case basis), or be assigned the final grade earned at the end of the semester after grades have been updated to reflect missing work.
2. Students who miss 25% or more clinical/field hours will be taken as evidence that the student does not intend to complete the course, and the student may be withdrawn from the course with a grade of **W**. A student who arrives to a clinical after the start time is considered absent and may be removed from the clinical, at the discretion of the preceptor.
3. Class times are listed on the course syllabus. Students are expected to be in class at the start of the day and remain in class through the end of the day. Students who arrive within 15 minutes after class has started will be counted late.

4. Students more than 15 minutes late, or those who leave 15 minutes early are counted absent. These students may be allowed to stay in class for the remainder of the day but will still be counted absent. Exceptions may be granted with prior communication to the instructor.
5. Students are responsible for all material presented or assigned whether present or absent from class.
6. Prolonged Absence Plan of Action: If a student knows of an absence, that student must submit a detailed action plan to the lead paramedic instructor outlining actions the student will take to keep up with homework, lectures, quizzes, exams, lab hours etc. All work will be due 1 week after return to normal class schedule.

Students must contact their lead instructor if they are going to be late or absent from class.

Students must contact the Clinical Coordinator if they are going to be late or absent from a field shift. Students must contact their lead instructor should they be absent from a clinical shift.

Special Circumstances:

If appropriate documentation is made for the following circumstances which require extended absences, the Program Director will attempt to make acceptable accommodations. The following list is not comprehensive and these circumstances will be reviewed on a case by case basis.

- Event of death of an immediate family member
- Military Duty
- Extended leave due to medical restrictions

[Click Here for the MCC Attendance/Absences Policy](https://www.mclennan.edu/highlander-guide/policies.html)

(<https://www.mclennan.edu/highlander-guide/policies.html>)

Click on the link above for the college policies on attendance and absences. Your instructor may have additional guidelines specific to this course.

Course Outline or Schedule:

EMSP 2444 will be offered each Monday and Wednesday, and Friday for 2 hours each class period. The course is offered in the fall semester each year and is taught in a classroom located in the Emergency Services Education Center (ESEC). Course topics begin with a discussion of

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cardiac anatomy and physiology, EKG interpretation, cardiac emergencies, and medications related to cardiac incidents.

Aug 21 - 27	Quiz #1	Chapter 1, 2 & 3	Review Cardiac Anatomy & Physiology & Electrophysiology
Aug 28 - Sept 3	Quiz #2	Chapter 4 & 5	Cardiac conduction, wave forms, & Electrophysiology, The Electrical Conduction System
Sept 4 - 10	Exam # 1 (Ch.1-5)	Chapter 6	EKG Interpretation, Scenarios
Sept 11- 17	Quiz #3	Chapter 7	Sinus Rhythms, Scenarios
Sept 18 – 24	Quiz #4	Chapter 8	Atrial Rhythms, Scenarios
Sept 25 – Oct 1	Exam #2 (Ch. 6-8)	Chapter 9	Junctional Rhythms, Scenarios
Oct 2 – 8	Quiz # 5	Chapter 10	Ventricular Rhythms, Scenarios
Oct 9 – 15	Quiz #6	Chapter 11	Heart Blocks, Scenarios
Oct 16 – 22	Quiz #7	Chapter 12	Paced Rhythms, Scenarios
Oct 23 – Oct 29	Exam # 3 (Ch. 8-12)		Relationship of the Coronary Arteries, Scenarios
Oct 30 – Nov 5	Quiz # 8		ST Abnormalities
Nov 6 – 12			BBB, LVH/RVH, Scenarios

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Nov 13 – 19	Exam #4 (Week 10-12 material)		Other Cardiac Emergencies, Static and Dynamic stations
Nov 20 – 26	EMS Conference	AND	Thanksgiving!
Nov 27 – Dec 3	Review of Cardiac Rhythms		FINAL!

Course Grading Information:

Students must maintain a course average of 80% and score a minimum of 80% on the course final examination. The course average will be based on the following:

Major exams: 40%

Quizzes, homework, and class participation 45%

Final exam 15%

Students who receive a failing grade or a grade of incomplete in a theory module will not be allowed to enroll in the next scheduled theory course. They must wait until the next time the subsequent course is offered.

EVALUATION

During the course, students will be evaluated in the following methods:

1. Written major examinations: Didactic evaluation will be made by written major exams. Exams will be over the content of assigned material utilizing the textbook, instructor's lectures and handouts. Exams may cover material from previous mastered content areas. Dates for the exams will be listed in the syllabus. Any student unable to take an exam at the scheduled time will complete the missed exam at a time scheduled by the instructor. Students who miss more than two scheduled exams may be dropped from the course. A minimum passing score of 80% is required for each examination.

2. Quizzes/Pop Tests: Quizzes or pop tests may be given at any time. All tests will have a time limit for completion. Students arriving tardy may not have time to complete the test. No make-up tests will be given for quizzes or pop tests.
3. Skills proficiency: Proficiency verification must be demonstrated on all required skills. Students are responsible for skills at previous levels of certification. The verification process is supervised and administered by a qualified examiner. The skills criteria and verification forms will be provided to the participant by the course coordinator. Skills verification sessions are posted on the course syllabus. Any student unable to attend testing at the scheduled time(s) must make arrangements with the course coordinator to complete skills examination. Make-up skills examination will be conducted at the convenience of the examiner and may be at the student's expense. Each student must demonstrate proficiency on each skill to be performed in the clinical environment. Skills proficiency will be recorded in the student's file and evaluated in a testing environment utilizing NREMT and MCC forms. Students are not allow to perform skills in the clinical setting that have not been mastered in the skills lab.
4. Students must demonstrate infection control procedures during skills practice and testing.
5. Homework: Students will be given homework assignments which must be turned in on the assigned date to receive credit. All late assignments will receive a grade of zero.

Late Work and Make Up Work Policies:

Homework: Students will be given homework assignments which must be turned in on the assigned date. All late assignments will receive a grade of zero. Missed quizzes are not made up. Students who receive an "incomplete" in a theory module will not be allowed to enroll in the next semester. The student must enroll in the course the next time it is offered.

Student Behavioral Expectations or Conduct Policy:

Students are expected to maintain classroom decorum that includes respect for other students and the instructor, prompt and regular attendance, and an attitude that seeks to take full advantage of the education opportunity. See Paramedic Student Handbook for further details.

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ACADEMIC RESOURCES/POLICIES

Accommodations/ADA Statement:

Any student who is a qualified individual with a disability may request reasonable accommodations to assist with providing equal access to educational opportunities. Students should contact the Accommodations Coordinator as soon as possible to provide documentation and make necessary arrangements. Once that process is completed, appropriate verification will be provided to the student and instructor. Please note that instructors are not required to provide classroom accommodations to students until appropriate verification has been provided by the Accommodations Coordinator. For additional information, please visit www.mclennan.edu/disability.

Students with questions or who require assistance with disabilities involving physical, classroom, or testing accommodations should contact:

disabilities@mclennan.edu 2542998122 Room
319, Student Services Center

Title IX:

We care about your safety, and value an environment where students and instructors can successfully teach and learn together. If you or someone you know experiences unwelcomed behavior, we are here to help. Individuals who would like to report an incident of sexual misconduct are encouraged to immediately contact the acting Title IX Coordinator at titleix@mclennan.edu or by calling, Dr. Claudette Jackson, (Accommodations/Title IX) at (254) 299-8465. MCC employees are mandatory reporters and must report incidents immediately to the Title IX Coordinator. Individuals may also contact the MCC Police Department at (254) 299-8911 or the MCC Student Counseling Center at (254) 299-8210. The MCC Student Counseling Center is a

confidential resource for students. Any student or employee may report sexual harassment anonymously by visiting <http://www.lighthouse-services.com/mclennan/>. Go to McLennan's Title IX webpage at www.mclennan.edu/titleix/. It contains more information about definitions, reporting, confidentiality, resources, and what to do if you or someone you know is a victim of sexual misconduct, gender-based violence or the crimes of rape, acquaintance rape, sexual assault, sexual harassment, stalking, dating violence, or domestic violence.

Student Support/Resources:

MCC provides a variety of services to support student success in the classroom and in your academic pursuits to include counseling, tutors, technology help desk, advising, financial aid, etc. A listing of these and the many other services available to our students is available at <http://www.mclennan.edu/campus-resource-guide/>

Academic Support and Tutoring is here to help students with all their course-related needs. Specializing in one-on-one tutoring, developing study skills, and effectively writing essays. Academic Support and Tutoring can be found in the Library and main floor of the Learning Commons. This service is available to students in person or through Zoom. You can contact the Academic Support and Tutoring team via Zoom or email (ast@mclennan.edu) by going to our website (<https://www.mclennan.edu/academic-support-and-tutoring/>).

College personnel recognize that food, housing, and transportation are essential for student success. If you are having trouble securing these resources or want to explore strategies for balancing life and school, we encourage you to contact either MCC CREW – Campus Resources Education Web by calling (254) 299-8561 or by emailing crew@mclennan.edu or a Success Coach by calling (254) 299-8226 or emailing SuccessCoach@mclennan.edu. Both are located in the Completion Center located on the second floor of the Student Services Center (SSC) which is open Monday-Friday from 8 a.m.-5 p.m.

Paulanne's Pantry (MCC's food pantry) provides free food by appointment to students, faculty and staff. To schedule an appointment, go to https://mclennan.co1.qualtrics.com/jfe/form/SV_07byXd7eB8iTqJg. Both the Completion Center and Paulanne's Pantry are located on the second floor of the Student Services Center (SSC).

MCC Foundation Emergency Grant Fund:

Unanticipated expenses, such as car repairs, medical bills, housing, or job loss can affect us all. Should an unexpected expense arise, the MCC Foundation has an emergency grant fund that may be able to assist you. Please go to

<https://www.mclennan.edu/foundation/scholarships-and-resources/emergencygrant.html>

to find out more about the emergency grant. The application can be found at

https://www.mclennan.edu/foundation/docs/Emergency_Grant_Application.pdf.

MCC Academic Integrity Statement:

Go to www.mclennan.edu/academic-integrity for information about academic integrity, dishonesty, and cheating. The unauthorized use of artificial intelligence (AI) for classwork can be a violation of the College's General Conduct Policy. Whether AI is authorized in a course and the parameters in which AI can be used in a course will be outlined by each instructor.

Minimum System Requirements to Utilize MCC's D2L|Brightspace:

Go to <https://www.mclennan.edu/center-for-teachingandlearning/FacultyandStaffCommons/requirements.html> for information on the minimum system requirements needed to reliably access your courses in MCC's D2L|Brightspace learning management system.

Minimum Technical Skills:

Students should have basic computer skills, knowledge of word processing software, and a basic understanding of how to use search engines and common web browsers.

Backup Plan for Technology:

In the event MCC's technology systems are down, you will be notified via your MCC student email address. Please note that all assignments and activities will be due on the date specified in the Instructor Plan, unless otherwise noted by the instructor.

Email Policy:

McLennan Community College would like to remind you of the policy (<http://www.mclennan.edu/employees/policy-manual/docs/E-XXXI-B.pdf>) regarding college email. All students, faculty, and staff are encouraged to use their McLennan email addresses when conducting college business.

A student's McLennan email address is the preferred email address that college employees should use for official college information or business. Students are

expected to read and, if needed, respond in a timely manner to college emails. For more information about your student email account, go to www.mclennan.edu/studentemail.

Instructional Uses of Email:

Faculty members can determine classroom use of email or electronic communications. Faculty should expect and encourage students to check the college email on a regular basis. Faculty should inform students in the course syllabus if another communication method is to be used and of any special or unusual expectations for electronic communications.

If a faculty member prefers not to communicate by email with their students, it should be reflected in the course syllabus and information should be provided for the preferred form of communication.

Email on Mobile Devices:

The College recommends that you set up your mobile device to receive McLennan emails. If you need assistance with set-up, you may email Helpdesk@mclennan.edu for help.

You can find help on the McLennan website about connecting your McLennan email account to your mobile device:

- [Email Setup for iPhones and iPads](#)
- [Email Setup for Androids](#)

Forwarding Emails:

You may forward emails that come to your McLennan address to alternate email addresses; however, the College will not be held responsible for emails forwarded to an alternate address that may be lost or placed in junk or spam filters.

For more helpful information about technology at MCC, go to [MCC's Tech Support Cheat Sheet](#) or email helpdesk@mclennan.edu.

Disclaimer:

The resources and policies listed above are merely for informational purposes and are subject to change without notice or obligation. The College reserves the right to change policies and other requirements in compliance with State and Federal laws. The provisions of this document do not constitute a contract.