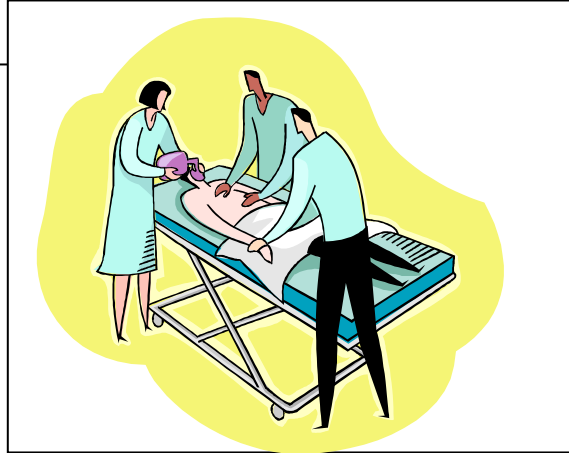


ELIM Outreach Training Center

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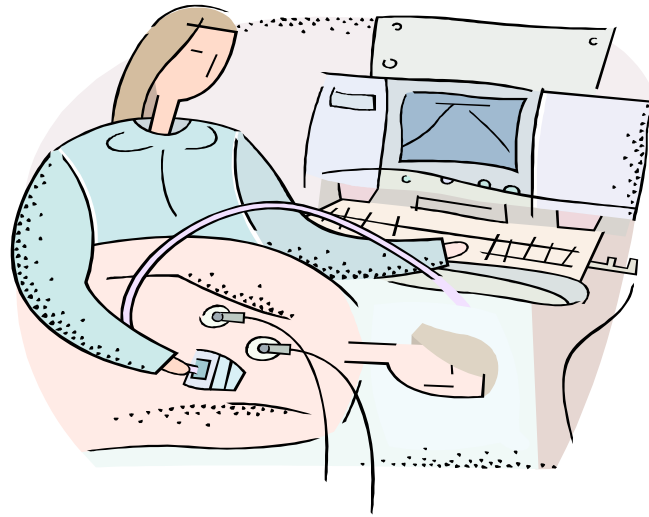
ELECTROCARDIOGRAM PROGRAM

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Revised 7/2015

STUDENT CATALOG



ELECTROCARDIOGRAM PROGRAM

AT THE TIME OF PUBLICATION, ALL MATERIAL ENCLOSED HEREIN IS CURRENT, TRUE AND CORRECT AND REPRESENTS POLICIES OF ELIM OUTREACH TRAINING CENTER, ALL CURRICULUMS OFFERED ARE AIMED FOR THE THOSE WHO WISH TO ENTER INTO THE ALLIED HEALTHCAREER OR THOSE WHO DESIRE A CAREER CHANGE.

ELIM OUTREACH TRAINING CENTER IS NOT ACCREDITED BY AN ACCREDITING BODY RECOGNIZED BY THE U.S. DEPARTMENT OF EDUCATION.

ELIM OUTREACH TRAINING CENTER IS APPROVED TO OPERATE BY THE PRIVATE BUSINESS AND VOCATIONAL SCHOOLS DIVISION OF THE ILLINOIS BOARD OF HIGHER EDUCATION.

ELECTROCARDIOGRAM TECHNICIAN (EKG) ADMISSION POLICY

REQUIREMENTS:

1. HIGH SCHOOL DIPLOMA OR EQUIVALENT
2. PASS A STANDARDIZE EXAM, READING AND MATH AT MINIMAL 9TH GRADE LEVEL
3. PHYSICAL ABILITY TO LIFT AND MOVE 25 POUNDS
4. FINE MOTOR COORDINATION (GOOD MANUAL DEXTERITY AND HAND/EYE COORDINATION)
5. GOOD VISUAL ACUITY TO DISTINGUISH COLOR
6. ABILITY TO STAND FOR PERIODS OF TIME
7. MUST BE ABLE TO COMMUNICATE EFFECTIVELY
8. MUST BE ABLE TO DISPLAY FLEXIBILITY, ACCEPT AND INTEGRATE CONSTRUCTIVE CRITICISM IN THE CLASSROOM AND LABORATORY SETTINGS
9. CURRENT PHYSICAL EXAM (FORMS AVAILABLE IN ELIM'S REGISTRATION OFFICE)
PREGNANT STUDENTS MUST PROVIDE A PHYSICIAN'S STATEMENT INDICATING THE STUDENT IS PHYSICALLY ABLE TO PARTICIPATE, WITHOUT RESTRICTIONS, IN BOTH CLASSROOM AND CLINICALS (MOCK) COMPONENTS OF THE COURSE.
10. TUBERCULOSIS (TB) SKIN TEST MANTOUX OR CHEST X-RAY

STUDENTS MUST:

1. COMPLETE 100 CLOCK HOURS
2. PASS THE COURSE WITH A GRADE OF "C" OR BETTER
3. PARTICIPATE IN ALL SIMULATED CLINICAL

ELECTROCARDIOGRAM (EKG) PROGRAM SYLLABUS

COURSE DESCRIPTION:

ELECTROCARDIOGRAMS ARE PERFORMED ROUTINELY AT MEDICAL EXAMINATIONS, PRE-SURGICAL EVALUATIONS, BEFORE INITIATING FITNESS PROGRAM, AS WELL AS IN THE ASSESSMENT AND TREATMENT OF CARDIOVASCULAR DISEASE.

THIS PROGRAM WILL INSTRUCT STUDENTS IN THE RESPONSIBILITIES OF APPLYING UP TO 12 LEAD ELECTROCARDIOGRAMS, PATIENTS' CONFIDENTIALITY, BASIC ELECTROPHYSIOLOGY, AND RHYTHMS STRIPS INTERPRETATIONS. LECTURES WILL INCLUDE MEDICAL TERMINOLOGY, CARDIAC DRUGS, CARDIAC COMPLICATIONS RECORDING AND REPORTING PROCEDURES, ATRIAL/VENTRICULAR /SINUS/ PACEMAKER RHYTHMS AND THE OPERATION OF THE 12-LEAD MACHINE. THE STUDENT WILL COMPLETE 100 CLOCK HOURS.

COURSE OBJECTIVES:

GRADUATES OF THIS PROGRAM SHALL:

1. Become knowledgeable about the career of an Electrocardiogram Technician
2. Have a basic knowledge of anatomy and physiology of the heart
3. Possess knowledge of patient's rights and confidentiality
4. Define, correctly spell, and identify common medical terminology, terms and abbreviations encountered in electrocardiograms.
5. List at least two basic types of cardiac cells in the heart, and know their location
6. Describe a p-wave, pr segment, pr interval, GRS complex, ST-segment, T-wave, QT interval, and U-wave as they relate to cardiac activity
7. Describe the electrocardiogram signs and symptoms of emergency care of dysrhythmias
8. Successfully identify the 12 lead EKG, describe the correct anatomic placement of the leads, and correctly place the leads .
9. Students to prepare to participate in electrocardiogram simulated lab, EKG tutorial and educational video
10. Demonstrate understanding of theory and clinical by scoring a minimum of 70% on the National Certification written exam.

ELECTROCARDIOGRAM TECHNICIAN.....TUITION

Course Description:

Electrocardiograms are performed routinely at medical examinations, pre-surgical evaluations, before initiating fitness programs, as well as in the assessment and treatment of cardiovascular disease. This program will instruct students in the responsibilities of applying up to 12 leads electrocardiograms, patient's confidentiality, basic electrophysiology, and rhythms strips interpretations. Lectures will include medical terminology, cardiac drugs, and cardiac complications, along with recording and reporting.

COST:

TUITION/Registration	\$875.00	
BOOK	\$100.00	
FEES	\$80.00	
	TOTAL	\$ 1055.00

OTHERS:

1. UNIFORM	\$25.00	
2. SHOES	\$25.00	
3. CPR	\$60.00	
4. CALIPERS	\$17.00	
5. NATIONAL EXAM	\$105.00	
	TOTAL	\$232.00
TOTAL COST:	\$ 1287.00	

Under the law you have the right, among others, to pay full amount due and to obtain under certain conditions a partial refund of financial charges if applicable. (ELIM does not charge finance charges. A late fee of 10% will be added to all late payments)

Method of Payment: Money Order or Cashier's Check. **SORRY, WE DO NOT ACCEPT CASH OR PERSONAL CHECKS.**

Please see your contract regarding registration fee and amount due on the first day of class (book(s) will be issued with first payment.

*Supplies may be purchased from ELIM or you may purchase uniforms and other supplies at: Wal-Mart, Work N Gear, and Life Uniform. Please consult the yellow book for a location near you.

ELECTROCARDIOGRAM COURSE MATERIAL

TEXT BOOK INFORMATION:

**ELECTROCARDIOGRAPHY ESSENTIALS BY; CHERYL PASSANISI, RN, MS
CLINICAL ALLIED HEALTHCARE SERIES
KAY STEVENS, RN, MA
SERIES EDITOR COPYRIGHT © 2004 THOMSON DELMAR LEARNING**

BOOK DESCRIPTION

THE INFORMATION PRESENTED IN THIS BOOK FOCUSES ON THE ESSENTIAL INFORMATION THE STUDENT NEEDS TO KNOW TO INTERPRET ECG'S/EKG'S AND UNDERSTAND THEIR SIGNIFICANCE. EACH ECG RHYTHM IS DESCRIBED AND ACCOMPANIED BY A SAMPLE RHYTHM STRIP. POSSIBLE PATIENT SIGNS AND SYMPTOMS RELATED TO THE RHYTHM AND WHEN APPROPRIATE, CURRENT RECOMMENDED TREATMENTS FOR THE RHYTHM ARE DISCUSSED.

INCLUDES OTHER INFORMATION SUCH AS CARDIAC DRUGS, ANATOMY AND PHYSIOLOGY OF THE HEART, INTRODUCTION TO THE 12-LEAD ECG, AND THE APPLICATION OF THE 12-LEAD ELECTRODES

Electrocardiogram Course Outline

Orientation

- A. Course Introduction
- B. Program Policies and Procedures

UNIT 1

Introduction to Electrocardiogram

- A. Role and Responsibility of the EKG Technician
- B. Qualification of the EKG Technician
- C. Key terms related to EKG

Objectives:

At the end of this unit the student shall be able to:

1. Define and correctly spell important related words.
2. State the role and responsibilities of the EKG technician
3. State the qualities of an EKG technician

UNIT 2

Fundamental Concepts

- A. Introduction to the Cardiac Patient
- B. Cardiac Risk factors
- C. Disease and Diagnostic Procedures
- D. Key Terms

Objectives:

At the end of this unit the student shall be able to:

1. State and explain several cardiac risk factors
2. State several disease and conditions that may have an effect on the heart
3. Define and correctly spell key terms

UNIT 3

Cardiac Anatomy and Physiology

- A. The role and the position of the heart in the body
- B. The heart as a muscle
- C. Circulation of Blood through the heart
- D. The Electrical Impulse and Conduction system
- E. The Cardiac Cycle

Objectives:

At the end of this unit the student shall be able to:

1. State the location of the heart and identify the large blood vessels around the heart
2. Describe how the heart works as a muscle
3. State the flow of blood through the heart
4. State the difference between mechanical and electrical function of the heart
5. Define and correctly spell key terms

UNIT 4

EKG Basics: The Heartbeat as a Waveform

- A. Application of theory
- B. Action Potential
- C. The Waveform
- D. EKG tracing
- E. The Cardiac Cycle

Objectives:

At the end of this unit the student shall be able to:

1. State the theory of events as it relates to polarization, depolarization, repolarization and movements of electrolytes
2. Describe how the electrical impulse represented by the EKG waveform relate to the activities of the heart chambers
3. Label the parts of the normal sinus waveform of the EKG tracing
4. Define and correctly spell the key terms

UNIT 5

The 12-Lead EKG

- A. Introduction to the 12-Lead ECG
- B. Preparing the Patient
- C. The Electrocardiograph
- D. The ECG Reading
- E. Lead Placement and Description
- F. Procedures for Obtaining a 12-Lead ECG

Objectives:

At the end of this unit the student shall be able to:

1. State what a "lead" is and recognize the 12 leads used in a standard ECG
2. Describe the equipment used when obtaining an ECG
3. State the correct way to prepare a patient's skin for an ECG and give explanation why proper preparation is important
4. Describe the proper steps to follow when taking an ECG
5. Demonstrate how to correctly perform an ECG
6. Define and correctly spell key terms

UNIT 6

The Holter Monitor

- A. Indications for the Holter Monitor
- B. The Holter Monitor
- C. Lead Positions
- D. Holter Monitor Testing
- E. Holter Monitor Placement

Objectives:

At the end of this unit the student shall be able to:

1. Explain the Holter monitor and state its likeness and dissimilarity from a 12-Lead ECG
2. Give several symptoms that may require testing with a Holter monitor
3. State several conditions in which the use of the Holter monitor can be helpful

- in determining an ultimate diagnosis
4. Explain the correct procedure for applying a Holter monitor to a client
 5. Discuss why a journal is needed and how long the monitor is left on
 6. Correctly apply a Holter monitor to a classmate
 7. Spell and define key terms

UNIT 7

The Treadmill Stress Test

- A. Indications for a TMST
- B. Contraindications for a TMST
- C. Patient Instruction
- D. Exercise ECG Equipment
- E. Patient Preparation
- F. Determining a Patient's Target Heart Rate
- G. Roles of Healthcare Professionals
- H. Treadmill stress test and blood pressure
- I. Precautions

Objectives:

At the end of this unit the student shall be able to:

1. State what information can be obtained from a TMST, or exercise ECG
2. Give several sign and conditions that may require further testing by a TMST
3. State signs that a client may develop during a Treadmill Stress Test
4. Give several reasons for stopping the Treadmill Stress Test.
5. Discuss which condition can make it unsafe to proceed with an exercise ECG
6. Correctly take a blood pressure
7. Define and correctly spell key terms

UNIT 8

Basics of Rhythm Interpretation

- A. Introduction to Rhythm Analysis
- B. ECG Graph Paper
- C. Systematic Rhythm Analysis
- D. Rhythm Interpretation

Objectives:

At the end of this unit the student shall be able to:

1. Explain the requirements for normal sinus rhythm
2. State how to examine the heart rhythm
3. Distinguish and correctly measure components of the ECG waveform
4. Give the normal duration for the PR interval and QRS complex
5. State several techniques for measuring waveforms
6. Explain normal sinus rhythm
7. Correctly spell and define key terms

UNIT 9

Analysis and Identification of Abnormal Heart Rhythms

- A. Introduction to Abnormal Heart Rhythms
- B. Atrial Arrhythmias
- C. Junctional Arrhythmias
- D. Ventricular Arrhythmias
- E. Heart Block
- F. Other significant Rhythms

Objectives:

At the end of this unit the student shall be able to:

1. State several irregular heart rhythms that originate in the atria of the heart
2. Name several irregular heart rhythms that initiate in the ventricle of the heart
3. State three irregular heart rhythms that arise because of abnormalities that block the conduction system of the heart
4. Give three heart rhythms that point to a medical emergency
5. Correctly spell and define key terms

ELECTROCARDIOGRAM TECHNICIAN UNIT HOURS

UNIT	HOURS
UNIT 1. INTRODUCTION TO THE ROLE	6
UNIT 2. FUNDAMENTAL CONCEPTS	6
UNIT 3. CARDIAC ANATOMY & PHYSIOLOGY	15
UNIT 4. EKG BASIC	14
UNIT 5. THE 12 LEAD ECG/ EKG	14
UNIT 6. HOLTER MONITOR	7
UNIT 7. THE TREADMILLS STRESS TEST	7
UNIT 8. BASIC RHYTHM INTERPRETATION	16
UNIT 9. ANALYSIS AND IDENTIFICATION OF ABNORMAL HEART RHYTHMS	15
TOTAL CLOCK HOURS	100

ELECTROCARDIOGRAM CLASS SCHEDULE

WEEK	DAY	LESSON	READING ASSIGNMENT	UNIT OBJECTIVE:
UNIT 1	TUESDAY	ORIENTATION ½ DAY		ELIM'S POLICY AND PROCEDURE HAND OUTS / BOOKS
UNIT 2	TUESDAY	LECTURE	CHAPTER 1 & 2	PERSONAL CONCEPTS ROLE OF THE TECHNICIAN
	THURSDAY	TEST LECTURE	CHAPTER 1 & 2 CHAPTER 3 & 4	CARDIAC ANATOMY & PHYSIOLOGY ELECTROPHYSIOLOGY EKG BASIC
UNIT 3	TUESDAY	TEST LECTURE	CHAPTER 3 & 4 CHAPTER 5	END OF CHAPTER ASSIGNMENT DUE THE 12-LEAD EKG
	THURSDAY	LECTURE	CHAPTER 5	MOCK CLINIC I (12 LEAD EKG) PAYMENT MUST BE CURRENT TO TAKE THE MIDTERM EXAM.
UNIT 4	TUESDAY	MIDTERM TEST LECTURE VIDEO	CHAPTERS 1-4 CHAPTER 6	HOLTER MONITOR
	THURSDAY	TEST LECTURE	CHAPTER 5 & 6 CHAPTER 7	THE TREADMILL STRESS TEST
UNIT 5	TUESDAY			PER INSTRUCTOR
	THURSDAY	TEST LECTURE	CHAPTER 7 CHAPTER 8	END OF CHAPTER ASSIGNMENT DUE BASICS OF RHYTHM INTERPRETATION
UNIT 6	TUESDAY	TEST LECTURE	CHAPTER 8 CHAPTER 9	MOCK CLINIC
	THURSDAY	LECTURE	CHAPTER 9	ANALYSIS AND IDENTIFICATION OF ABNORMAL HEART RHYTHMS

UNIT 7	TUESDAY	LECTURE	CHAPTER 9	MOCK CLINIC
	THURSDAY	LECTURE VIDEO	CHAPTER 9	MOCK CLINIC
UNIT 8	TUESDAY	TEST	CHAPTER 9	MOCK CLINIC
	THURSDAY			NATIONAL EXAM INFORMATION REVIEW
UNIT 9	TUESDAY	FINAL EXAM CLINICAL		STUDENTS ARE DISMISSED AFTER THEY HAVE COMPLETED THEIR EKG APPLICATION(S). STUDENTS MUST BRING IN 2 PARTICIPANTS PLEASE FOLLOW ALL YOUR INSTRUCTOR INSTRUCTIONS. PARTICIPANTS MUST BE 18YRS OLD.
	THURSDAY	CLINICAL		
UNIT 10	TUESDAY	FINAL EXAM WRITTEN		WRITTEN EXAM DISMISSED AFTER THE EXAM
	THURSDAY	EVALUATION		TEACHERS EVALUATION EXIT INTERVIEW FINAL EVALUATION

SCHEDULE SUBJECT TO CHANGE WITHOUT NOTICE

ALL PAYMENTS MUST BE CURRENT TO PARTICIPATE IN THE MIDTERM EXAM, FINAL EXAM AND SIMULATED CLINICAL. PAYMENTS NOT PAID ACCORDING TO THE SIGNED INSTALLMENT AGREEMENT CAN LEAD TO DISMISSAL FROM THE PROGRAM. PLEASE CONSULT YOUR STUDENT CATALOG.

CLASS WILL START AT 5:30PM, YOU WILL HAVE ONE 15 MINUTE BREAK (PER INSTRUCTOR). PLEASE CONSULT YOUR STUDENT CATALOG ON POLICIES REGARDING ABSENTEEISM AND TARDINESS.

STUDENTS MUST PASS ALL EXAMS WITH AN 80% OR BETTER.

Please see your instructor immediately if you are having problems achieving or maintaining the required 80% GPA.

All students must turn in 1 or 2 complete EKG strips from 1 or 2 participants (must be 18yrs and older) . Clinical grade will be based on clinical attendance and clinical performance. Student must be in uniform to participate in the final clinical exam.

Please Note: Only one excused exam will be allowed per course.

Student must be in full uniform daily and to participate in ALL mock clinical. NO EXCEPTION.

PLEASE: PLEASE TURN YOUR CELL PHONES OFF IN THE CLASSROOM