HealthONE EMS
Competency Based Syllabus

Course Number Identifier: CCN 230	**Course Title:** EKG Basic Interpretation			**Credits** 2
Hours: 40	**Lecture/Discussion** 40	**Occupational Lab** 0	**Clinical** 0	**Field** 0

The EKG Basic Course is designed as an introduction to basic electrocardiology. To prepare providers, a competency based educational program of didactic and practical instruction in basic cardiology was developed. This course prepares the student to recognize cardiac arrhythmias, and allows the student to begin to differentiate and interpret cardiac rhythms generated from various locations in the heart.

Prerequisite(s):

None

Required Textbooks, Title, Author, Publisher and ISBN Number:

ECG Made Easy, 3rd Ed, Aehlert, Barbara, Mosby, Inc. St. Louis Mo. 2006

ECG Workout: Exercises in Arrhythmia Interpretation, 5th Ed, Huff, Jane, Lippincott, Philadelphia PA, 2005

Required Materials:

None

Suggested Materials:

EKG Calipers

Students who find that they are unable to continue a class should complete a Withdrawal form in the Admissions and Records office. All students are encouraged to read the academic requirements in the College Catalog.

HealthONE EMS 7:30 AM - 5:00 PM Phone: 303-788-6317

Support services are available to students with disabilities who have a documentable need for accommodation in accordance with the Americans with Disabilities Act and the Rehabilitation Act of 1973, Section 504. To access services contact Disability Services in M143 or call (303) 797-5937.

After successful completion of this course the student should be able to:	
No.	**Competency**
1	Define the principals of electrocardiology
2	Assemble the equipment needed to obtain EKG recordings
3	Recognize basic cardiac rhythms
4	Identify the major anatomical structures of the cardiovascular system
5	Describe the physiology and electro physiology of the cardiovascular system
6	Define systole and diastole in relation to the cardiac cycle
7	State the intrinsic (inherent) rates of the following: sinoatrial node atrioventricular junction ventricles
8	List the two divisions of the autonomic nervous system and state how each affects the heart
9	List the properties of a cardiac cell
10	Define depolarization and repolarization in respect to electrical activity in the heart

After successful completion of this course the student should be able to:	
No.	**Competency**
11	Define absolute and relative refractory periods
12	Identify artifact and list its causes
13	Describe the four phases of the cardiac action potential
14	Identify the following then given an EKG strip and define each: P Wave Q wave R wave S wave T wave U Wave QRS complex PR Interval PR segment QT Interval ST segment
15	Identify the positive and negative electrode placement of the following Leads when given a diagram: Lead I Lead II Lead III MCL I
16	Calculate rate, regularity, and time intervals
17	List a systematic approach to dysrhythmia interpretation

After successful completion of this course the student should be able to:	
No.	**Competency**
18	State the EKG criteria for the following EKG rhythms: Sinus Rhythm Sinus Tachycardia Sinus Bradycardia Sinus Arrythmia Sinus Block Sinus Arrest Premature Atrial Contraction (PAC) Atrial Tachycardia Wandering Atrial Pacemaker Multifaced Atrial Tachycardia Atrial Fibrillation Atrial Flutter Premature Junctional Contraction (PJC) Junctional Escape Rhythm Accelerated Junctional Rhythm Junctional Tachycardia Premature Ventricular Contraction (PVC) Idioventricular Rhythm Acceleration Idioventricular Rhythm Ventricular Tachycardia Ventricular Fibrillation Asystole Primary Ventricular Standstill First Degree AV Block Second Degree AV Block Type I Second Degree AV Block Type II Third Degree AV Block
19	Define P.E.A.
20	Demonstrate correct placement of cardiac monitor leads

Health ONE EMS Emergency Medical Services

ARAPAHOE COMMUNITY COLLEGE

Grading:

Graded Events	Percent of Grade	Grading Scale
Quizzes	40%	A = 92 – 100
Final Exam	60%	B = 85 – 91
Total	100%	C = 75 – 84
		D = 70 – 74
		F = 69 or lower

1. The course consists of written quizzes and a final exam.
2. Quizzes may be administered at any time at the discretion of the instructor. Quizzes are utilized to reinforce knowledge and will have minimal impact on grade average.
3. Any and all information disseminated during the course is considered testable material.
4. All quizzes and the final exam must be successfully completed with a score of 80% or greater. In the event the score is less than 80% the student must retake the quiz or final exam.
5. Retests must be taken within one week of the original attempt. Schedule retests through the Course Coordinator. The original score will be recorded. The final exam may be retaken once.
6. Students are not permitted to leave the testing area until they have completed the examination.
7. If a student is absent for a quiz or exam, the maximum score attainable on that particular event is 80%.
8. Exams may not be made up during class time.
9. A cumulative score of 80% or greater is required to receive a certificate of completion.

Number of Examinations:

- Seven quizzes
- One comprehensive final

Attendance Policy:

1. The student must attend all lectures and examination sessions.
2. When an absence occurs, the student must notify the Course Coordinator.
3. Students who leave class early without prior permission of the Course Coordinator will have an absence recorded for that class period.
4. Any student who arrives at class greater than 10 minutes after the scheduled start time will be considered tardy. A student who is tardy more than 3 times will have an absence of hours recorded.
5. One absence is allowed during the course, however the student is responsible for all material presented during the course, and any missed exams or quizzes must be made up.
6. Any exam or quiz made up after the scheduled date will have its score reduced by 20%. This can be avoided by completing the quiz or exam before its scheduled date.
7. If a second absence occurs, the material missed must be reviewed and discussed with an approved tutor. Any expense incurred is the student's responsibility. Failure to do so will constitute failure to complete the class.
8. More than two absences will result in failure of the course.
9. The class session for the final exam cannot be missed.

Instructor's Name:	**Phone:**	**E-mail:**
Robert Vroman	303-788-6397	Robert.Vroman@HealthONEcares.com

Instructor's Office Hours:

Monday and Thursday 5:00 PM – 6:00 PM, and by appointment