# Emergency Medical Technician –Basic Student Learning Outcome Spring 2011

Collaboratively as a discipline we were able to congregate the appropriate statistics to complete the SLO requirements.

Assisting in this process:

Dr. Jim Holbrook

**Gary Reese** 

Karl Nicholson

John Commander

Eileen Verosik

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### **EMT-Basic**

### Dialog

### 12/03/2010

Present; Dr. Holbrook, Karl Nicholson, Gary Reese

Start Time: 1200

### Agenda

- 1. Program attrition
- 2. Implementation of the *Emergency Care 12<sup>th</sup> edition*, Brady text
- 3. Creation of quizzes and med-term / final exam
- 4. Skills instructor handbook (work in progress)

### **Program Attrition;**

The dialogue pertaining to the attrition factor of the Emergency Medical Technician Basic program continues by reviewing prior semester's data.

As data is collected from internal and external resources, the department is able to identify areas of concern, address them and continue reduction of attrition.

With the addition of a prerequisite to the Emergency Medical Technician – Basic program to read at an advance or demonstrate college level reading as determined by the Crafton Hills College assessment process, as a department anticipates significant decrease in attrition.

Therefore as a department we concurred that by adding this to the program would be beneficial for the outcome of our students.

Further meeting with the curriculum committee in the launching process of this prerequisite, fall 2011 is the target date for implementation into curriculum.

For the next two years this will be monitored closely for increase or decrease in attrition, making the appropriate changes to ensure a better student learning outcome, and reduction of attrition.

### Quizzes, Midterm, Final exam:

Reviewing of the prior semester quiz verification sheets, as a discipline, discovered we all exemplify the same weak areas in the cognitive testing process. After great discussion, anticipating the prerequisite will enhance the comprehension outcome; with the addition of our new text in the fall 2011 semester staff will be able to address questions and the level which they are being measured during the writing process of new quizzes, midterm and final exam.

The suggestion was to go slow to go fast. Start the semester with less challenging question however covering the same objectives, increasing as the student becomes acquainted with what is expected of them.

Changes are in progress.

### **New Text:**

Revising our program to meet the internal and external requirements is an ongoing challenge. A new text has been written by Pearson imprinted by Brady, *Emergency Care 12<sup>th</sup> Edition* meeting the educational standards set forth by the National Registry and State. Therefore it was unanimous that a new text would be introduced in the fall 2011 semester.

With the national registry changes in their cognitive exam commencing in fall of 2011, our students will be prepared for the new challenges.

### **Skills Instructor Handbook**

After reading all evaluations written by the fall 2011 semester students, the weak link was obvious, it was the skills instructors and their consistency.

Therefore, a regulations, and policy manual was written. This manual will set the guidelines in which a skills instructor must follow.

A meeting is set for the first week of the fall 2011 semester for all instructors to receive their manual and go over its contents.

The rationale behind this is to bring consistency and structure in all three (3) sections of the EMS-020 program in the fall 2011 semester.

In closing, through the use of Student Learning Outcomes and channeling the negatives into the path of success, we continue to improve our program and in return meet the industry needs of having highly trained Emergency Medical Technician – Basic to serve their communities.

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EMT – Basic quizzes are reviewed and revised each semester, using information from all three sections. As a discipline we look at the most frequently missed questions, review its content, what we are measuring, terminology and reading level that is being used. With this information as a discipline we restructure specific items.

The mid-term is also reviewed and revised using the same process.

Final exam is comprehensive and based on a content analysis from the primary faculty.

The program has a set minimum competency for the midterm exam established at 80% overall, and demonstrating competency in obtaining a set of vital signs. Successfully completing these two measurements the student is advanced to start their field and clinical rotation.

In order to meet external regulations each student must document the assessment of five patients during their field and clinical rotation.

Upon course completion, students are than able to register for the National Registry computer-base exam. This computer generated exam measures six (5) categories.

- 1. Airway
- 2. Cardiology
- 3. Trauma Patient
- 4. Medical Patient
- 5. OB/Pediatric/Emergency Medical Services/Operations

Using information from National Registry, we are able to review weak areas with-in the program and make the necessary revisions.

Another form of evaluating is the student's psychomotor learning outcome using the National Registry Practical testing format. This point valued system identifying specific values for each intervention treating medical and trauma patients.

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See attached documents

EMS - 021

Preventing Infectious Disease 5<sup>th</sup> edition for Emergency Medical Technician – Basic course is written by the Emergency Care and Safety Institute and we use the established guidelines both pretest and post test information. The program assessment also includes both course and instructor evaluation.

EMS - 022

Basic Life Support for Emergency Medical Technician – Basic course

We use the established American Heart Association (AHA) guidelines both pretest and post test information. The program assessment also includes both course and instructor evaluation.

EMS - 023

Hazardous Materials First Responder Awareness for Emergency Medical

First Responder awareness is a course that is written by the California Specialized Training Institute. We use the established guidelines using both pretest and post test information. The program assessment also includes both course and instructor evaluation.

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EMS - 921

Recertification / Continuing education course

This course is written in conjunction with the National refresher course guide lines.

With the addition of a new text authored by the American Academy of Orthopaedic Surgeons

### EMS 020

Date: Spring Semester 2011

Instructor of record: Dr. Holbrook

Section 90

Number of student's: 45 enrolled, 27 dropped prior to midterm

Cognitive Midterm Exam: 18 students took the mid-term

### Must pass with 75% or better and an overall 80% in the program

Took Midterm	Failed Midterm	Pass midterm but did not maintain an	Passed midterm and
		80% or better overall in program	maintained an 80% or
			greater overall
18	0	0	18

Discussion: 3 students did not attend orientation, 24 students dropped prior to mid-term

### **Practical Final Exam**

Must obtain an 80% or greater in nine (9) of the thirteen (13) skills to have the retest option Unsuccessful in second attempt constitutes a fail in the program Unsuccessful in greater than four (4) skills constitutes a fail in the program

Passed 18 Fail 0 Retest Pass/Fail
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### Discussion:

### **Cognitive Final**

### Must pass with an 80% or greater and an overall 80% in the program

Passed Final	Failed Final	Pass final but did not maintain an 80% or better overall in program	Passed final and maintained an 80% or
			greater overall
18	0	/	18

Discussion: The purpose of this writing is to document the student outcome at the final evaluation

Forty-five students registered for the course, three (3) did not attend the mandatory orientation meeting

Nineteen (24) dropped prior to midterm

Eighteen (18) students took the midterm, zero (0) students scored below the 75% not have the overall Eighteen (18) students were successful in the program

# Test Summary EMS 020

Date: Spring Semester 2011

Instructor of record: Karl Nicholson

Section 91

Number of student's: 45 enrolled, 1 dropped at orientation leaving 44 starting the program

Twenty-one (21) students dropped prior to taking the mid-term

One dropped for personal reasons

One failed written final exam

Cognitive Midterm Exam: 22 students took the mid-term

### Must pass with 75% or better and an overall 80% in the program

Passed	Failed Midterm	Pass midterm but did not maintain an	Passed midterm and
Midterm		80% or better overall in program	maintained an 80% or
			greater overall
21	0		21

Discussion: 1 student did not attend orientation 21 students dropped prior to mid-term

### **Practical Final Exam**

Must obtain an 80% or greater in nine (9) of the thirteen (13) skills to have the retest option Unsuccessful in second attempt constitutes a fail in the program

Unsuccessful in greater than four (4) skills constitutes a fail in the program

i Passed .	21	Fail	0	Retest Pass/Fail

### Discussion:

### **Cognitive Final**

### Must pass with an 80% or greater and an overall 80% in the program

Passed Final	Failed Final	Pass final but did not maintain an 80% or better overall in program	Passed final and maintained an 80% or greater overall
21	1	0	21

Discussion: The purpose of this writing is to document the student outcome at the final evaluation

Forty-five students registered for the course, one (1) did not attend the mandatory orientation meeting Twenty-one (21) dropped prior to midterm,

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Twenty-three (23) students took the midterm and two (2) students scored below the 75% mark. .

Twenty-one (21) students were successful in the program

### EMS 020

Date: Fall Semester 2010

**Instructor of record:** Gary Reese

Section 2

Number of student's: 45 enrolled, 45 showed up first day of class

Cognitive Midterm Exam: 33 students took the mid-term

### Must pass with 75% or better and an overall 80% in the program

Took Midterm	Failed Midterm	Pass midterm but did not maintain an 80% or better overall in program	Passed midterm and maintained an 80% or
			greater overall
33	6	3	24

**Discussion:** 6 students dropped prior to mid-term, plus 1 student for not completing their immunizations

### **Practical Final Exam**

Must obtain an 80% or greater in nine (9) of the thirteen (13) skills to have the retest option Unsuccessful in second attempt constitutes a fail in the program Unsuccessful in greater than four (4) skills constitutes a fail in the program

Passed 23	Fail 0	2 Retest Passed

Discussion: all students met and exceeded the internal and external standards

### **Cognitive Final**

### Must pass with an 80% or greater and an overall 80% in the program

Passed Final	Failed Final	Pass final but did not maintain an	Passed final and
		80% or better overall in program	maintained an 80% or
			greater overall
22	1	0	22

Discussion: The purpose of this writing is to document the student outcome at the final evaluation

Forty-five students registered for the course, twelve (12) dropped prior to midterm
Thirty-three (33) students took the midterm, three (6) students scored below the 75% mark and three
(3) for overall point's necessary to continue and one (1) no show.

Twenty-three (23) students took the final cognitive exam

22students were successful in the program

### Course EMS 021

### Preventing Disease Transmission for Emergency Medical Technicians

Date: Spring 2011

Evaluator/Instructor of record: Robin Bishop

Section: 90

Number of student's: 33

### Cognitive written exam

Must obtain an 80% or greater to pass

Pass 33

Expectations were met. No changes needed in the course

Students met the standards set by the National Safety Council and OSHA blood-borne pathogens training requirements for EMS and Public safety workers.

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### Course EMS 021

### Preventing Disease Transmission for Emergency Medical Technicians

Date: Spring 2011

Evaluator/Instructor of record: Robin Bishop

Section: 91

Number of student's: 39

### **Cognitive written exam**

Must obtain an 80% or greater to pass

Pass 39

### Discussion:

Expectations were met. No changes needed in the course

Students met the standards set by the National Safety Council and OSHA blood-borne pathogens training requirements for EMS and Public safety workers.

### Course EMS 021

### Preventing Disease Transmission for Emergency Medical Technicians

Date: Spring 2011

Evaluator/Instructor of record: Robin Bishop

Section: 92

Number of student's: 39

### **Cognitive written exam**

Must obtain an 80% or greater to pass

Pass 39

### **Discussion:**

Students met and exceeded all expectation of this course. No changes required

Students met the standards set by the National Safety Council and OSHA blood-borne pathogens training requirements for EMS and Public safety workers.

### Course EMS 022

Date: Spring 2011

Evaluator/Instructor of record: Karl Nicholson

Section: 90

Number of student's: 36

### **Practical Exam**

1 Rescuer CPR		2 Rescuer CPR		1 and 2 Rescuer Infant CPR	
P, 36 - NR, P2 F.	36	P, 36 - NR, P2 F.	36	P, 36 - R, P2 F.	36

### Cognitive written exam

Must obtain an 84% or greater to pass

Initial attempt with Version "A"

Second attempt after remediation Version "B"

Passed 36 Failed first attempt	After remediation second Attempt P-2 , F- /	
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Successful with course: 36

### Legend:

P=Pass First attempt: NR= need remediation: P2=Passes second attempt after remediation

### Discussion:

Expectations have been met. No changes to course required

- 1. Students are able to perform Single Rescuer Cardiopulmonary Resuscitation on adults in accordance with the standards set by the American Heart Association.
- 2. Students are able to perform Two Rescuer Cardiopulmonary Resuscitation on adults in accordance with the standards set by the American Heart Association.
- 3. Students are able to perform both Single and Two-Rescuer Cardiopulmonary Resuscitation on infants in accordance with the standards set by the American Heart Association.

### Course EMS 022

Date: Spring 2011

Evaluator/Instructor of record: Karl Nicholson

Section: 91

Number of student's: 36

### **Practical Exam**

1 Rescuer CPR		2 Rescuer CPR		1 and 2 Rescuer Infant CPR	
P, 36 - NR, P2, - F,	36	P, 36 - NR, P2, - F,	36	P, 36 - R, P2, - F,	36

### Cognitive written exam

Must obtain an 84% or greater to pass

Initial attempt with Version "A"

Second attempt after remediation Version "B"

Passed 36 Failed first attempt / After remediation	on second Attempt P-2 / , F- /
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Successful with course: 36

### Legend:

P=Pass First attempt: NR= need remediation: P2=Passes second attempt after remediation

### Discussion:

Expectations have been met. No changes to course required

- 1. Students are able to perform Single Rescuer Cardiopulmonary Resuscitation on adults in accordance with the standards set by the American Heart Association.
- 2. Students are able to perform Two Rescuer Cardiopulmonary Resuscitation on adults in accordance with the standards set by the American Heart Association.
- 3. Students are able to perform both Single and Two-Rescuer Cardiopulmonary Resuscitation on infants in accordance with the standards set by the American Heart Association.

### Course EMS 022

Date: Spring 2011

Evaluator/Instructor of record: Karl Nicholson

Section: 92

Number of student's: 39

### **Practical Exam**

1 Rescuer CP	R	2 Rescuer CPR		1 and 2 Rescuer In	fant CPR
P, 39 - NR,	39	P, 39 - NR,	39	P, 39 - R,	39
P2, - F,		P2, - F,		P2, - F,	

### Cognitive written exam

Must obtain an 84% or greater to pass

Initial attempt with Version "A"

Second attempt after remediation Version "B"

Passed 39 Failed first attempt	3	After remediation second Attempt P-2 3 , F- /	
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**Successful with course**: 39

### Legend:

P=Pass First attempt: NR= need remediation: P2=Passes second attempt after remediation

### Discussion:

Expectations have been met. No changes to course required

- 1. Students are able to perform Single Rescuer Cardiopulmonary Resuscitation on adults in accordance with the standards set by the American Heart Association.
- 2. Students are able to perform Two Rescuer Cardiopulmonary Resuscitation on adults in accordance with the standards set by the American Heart Association.
- 3. Students are able to perform both Single and Two-Rescuer Cardiopulmonary Resuscitation on infants in accordance with the standards set by the American Heart Association.

### Course EMS 023

### Hazardous Materials First Responder

Date: Spring 2011

**Evaluator/Instructor of record:** John Commander

Section: 90

Number of student's: 33

### Cognitive written exam

Must obtain an 70% or greater to pass

Pass 33

### **Discussion:**

Expectations were met. No changes necessary

Students met the standards set by the Office of Emergency Services California Specialized Training Institute

### Course EMS 023

### Hazardous Materials First Responder

Date: Spring 2011

**Evaluator/Instructor of record:** John Commander

Section: 91

Number of student's: 39

### Cognitive written exam

Must obtain an 70% or greater to pass

Pass 39

### **Discussion:**

Expectations were met. No changes necessary

Students met the standards set by the Office of Emergency Services California Specialized Training Institute

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### Course EMS 023

### Hazardous Materials First Responder

Date: Spring 2011

**Evaluator/Instructor of record:** John Commander

Section: 92

Number of student's: 33

### Cognitive written exam

Must obtain an 70% or greater to pass

Pass 33

### **Discussion:**

Expectations were met. No changes necessary

Students met the standards set by the Office of Emergency Services California Specialized Training Institute

### Course EMS 921

**Date: 2/2010** 

**Instructor of record:** Harry Stone

Section: 1

Number of student's: 24

Six (6) students did not complete the course and received No Credit

### **Practical Exam**

Airway	O.B	Infant	Medical	Trauma	Behavioral
			Assessment	Assessment	
P18	P _18	P _18	P18	P _18	P _18
Failed first					
attempt	attempt	attempt	attempt	attempt	attempt
Retest	Retest	Retest	Retest	Retest	Retest
P	P	P	P	P	P
NP	NP	NP	NP	NP	NP

Must show competency in all skills

Must complete all skills without performing any of the Critical Criteria noted on the designated skill sheets

	-	
Passed 18	Failed first attempt /	After remediation second Attempt P / , F /

### **Cognitive exam**

Must obtain an 80% of better without a retest option

Passed 18	Failed
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Successful with course: 13

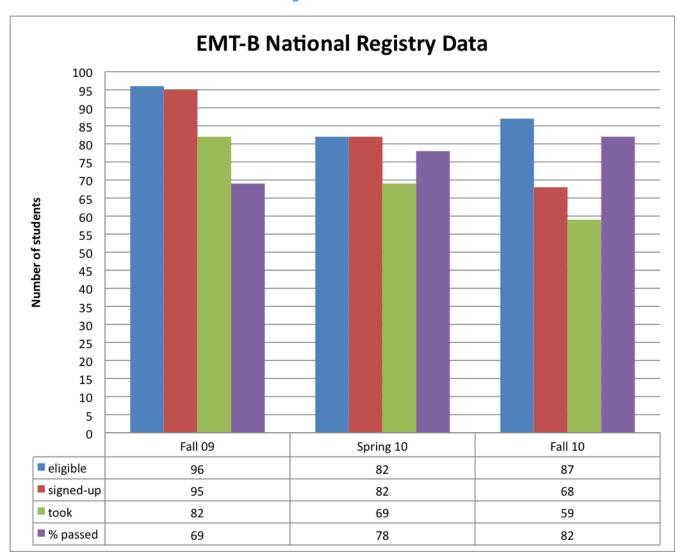
### Discussion:

Expectations have been met. No changes to course required

- 1. Demonstrate airway management with the use of airway adjuncts
- 2. Demonstrate a systematic medical assessment
- 3. Demonstrate a systematic trauma assessment
- 4. Demonstrate an assessment on a behavioral patient
- 5. Demonstrate application of a traction splint

Emergency Medical Technician Basic flow chart representing the success percent of the National Registry

Cognitive Exam



### **Data retrieved from the National Registry**

Even with the decline in enrollment, the success with the National Registry improves each semester

Columns represent number of student except the columns with a value noted. This represents the percent of students that were successful taken the National Registry Exam

Data available upon request