308 Witmarsum West Dr.
North Newton, KS 67117
P: 316.283.8502
F: 316.283.8516
email: *info@friesengroup.net*
www.friesengroup.net

Kansas Advanced Emergency Medical Technician Transition Course

Needs Assessment and Gap Analysis Document

September 2009

Needs Assessment

The needs assessment for this course was determined by using the following mechanisms:

1. The curriculum designers reviewed the Kansas EMS Scope of Practice document published in 2008 to determine the specific tasks to be included in the transition course.
2. To determine the specific knowledge, skills, and abilities tied to each of the tasks, we implemented two mechanisms to elicit feedback from Kansas EMS educators and current certified attendants at the EMT-Intermediate level.
    a. We implemented a survey of existing EMT-Intermediates and EMS educators in Kansas EMS using SurveyMonkey, an Internet based survey tool. Educators included in this survey were Training Officer I, Training Officer II, and Instructor/Coordinator. A total of 257 persons responded to the Advanced EMT survey.
    b. We held four (4) geographically distinct focus group sessions with Kansas EMS educators, certified attendants, and interested persons. Fifty six (56) persons attended these focus group sessions. The breakdown of attendees at specific locations is as follows.

Attendees	Wichita	Overland Park	Hoxie	Ellsworth
	July 17	July 24	July 25	August 11
Total	14	10	9	23
TO 1	3	3	1	7
TO 2	1	1	1	4
I/C	6	5	6	9
FR	1	0	0	0
EMT-B	3	0	1	0
EMT-I	2	3	6	7
MICT	8	7	2	16

c. In addition to the responder and educator survey tool, we implemented a survey of EMS medical director physicians to obtain feedback regarding the transition objectives and implementation. Thirteen (13) Medical Directors responded to the Medical Director survey.
d. We encouraged email and phone communication from stakeholders to give direct feedback regarding the EMT curriculum development process. We did not receive any communication directly regarding the EMT curriculum.

The needs assessment revealed the following:

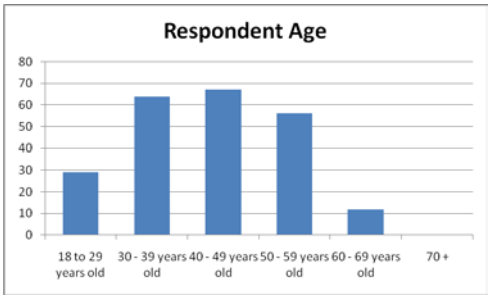
Themes from the Medical Director Survey for AEMT:

1. The concept of "First do no harm" must be emphasized.
2. AEMTs must know "why", not just "how".
3. AEMTs need to demonstrate competency.
4. Pharmacology must be thoroughly covered.
5. EKG interpretation of basic rhythms must be covered.
6. Spend time in didactic and skills settings with specific skills: Airway management, ventilator use and monitoring, etc.

Advanced EMT Survey:

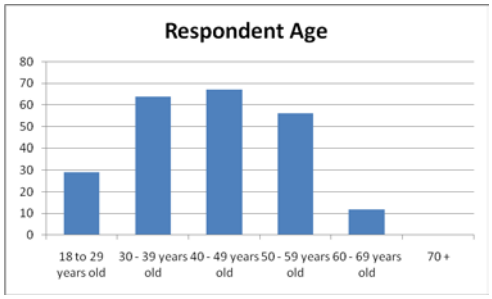
General Data:

Respondent Age	
18 to 29 years old	29
30 - 39 years old	64
40 - 49 years old	67
50 - 59 years old	56
60 - 69 years old	12
70 +	0



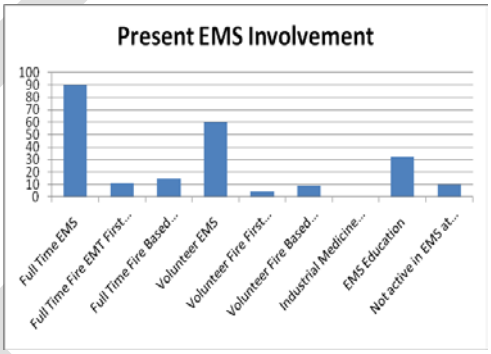
Respondent Age

18 to 29 years old	29
30 - 39 years old	64
40 - 49 years old	67
50 - 59 years old	56
60 - 69 years old	12
70 +	0



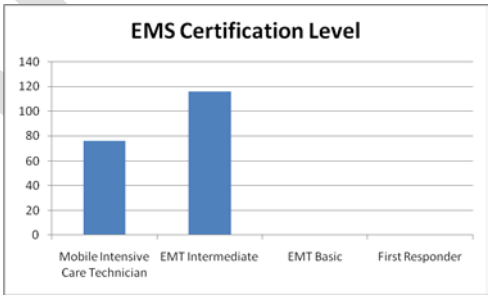
Present EMS Involvement

Full Time EMS	90
Full Time Fire EMT First Response	11
Full Time Fire Based EMS Provider	15
Volunteer EMS	60
Volunteer Fire First Responder	4
Volunteer Fire Based EMS Provider	9
Industrial Medicine EMS Responder	0
EMS Education	32
Not active in EMS at this time	10



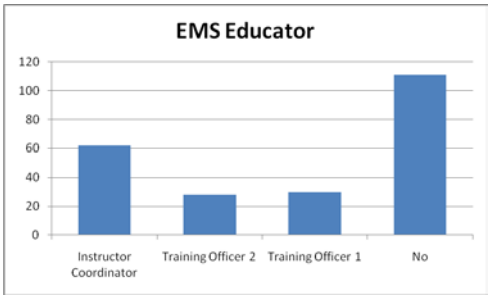
EMS Certification Level

Mobile Intensive Care Technician	76
EMT Intermediate	116
EMT Basic	0
First Responder	0



EMS Educator

Instructor Coordinator	62
Training Officer 2	28
Training Officer 1	30
No	111



Individual Task Needs Assessment

Each task was the focus of a survey question designed to elicit comfort levels and knowledge levels from existing first responders and instructors. In the responses below, green indicates a high level of knowledge currently, yellow a significant lack of knowledge currently, and red a critical lack of current knowledge.

AIRWAY & BREATHING I have ...

	All Data	%	Instructor Coordinator	%	Training Officer 2	%	Training Officer 1	%	EMT-I	%
Bag-Valve-Mask with in-line small volume nebulizer										
1 – No knowledge	19	8%	1	2%	2	7%	2	7%	16	14%
2 – Heard of this skill	27	12%	3	5%	1	4%	4	13%	21	18%
3 – Watched others do this skill	19	8%	2	3%	4	14%	5	17%	0	0%
4 – Assisted others in doing this skill	21	9%	4	6%	1	4%	1	3%	14	12%
5 – A working knowledge of when and how to apply this skill	52	23%	11	18%	7	25%	10	33%	25	22%
6 – Full competency at this skill	93	40%	41	66%	13	46%	8	27%	26	22%
Automatic Transport Ventilator										
1 – No knowledge	28	12%	1	2%	1	4%	3	10%	23	20%
2 – Heard of this skill	52	23%	4	6%	8	29%	7	23%	37	32%
3 – Watched others do this skill	38	16%	9	15%	2	7%	10	33%	22	19%
4 – Assisted others in doing this skill	20	9%	7	11%	4	14%	0	0%	12	10%
5 – A working knowledge of when and how to apply this skill	41	18%	15	24%	6	21%	5	17%	14	12%
6 – Full competency at this skill	52	23%	26	42%	7	25%	5	17%	8	7%
Manually Triggered Ventilator										
1 – No knowledge	30	13%	0	0%	1	4%	2	7%	22	19%
2 – Heard of this skill	60	26%	9	15%	8	29%	8	27%	44	38%
3 – Watched others do this skill	31	13%	3	5%	3	11%	10	33%	14	12%
4 – Assisted others in doing this skill	18	8%	1	2%	4	14%	2	7%	15	13%
5 – A working knowledge of when and how to apply this skill	48	21%	21	34%	7	25%	6	20%	15	13%
6 – Full competency at this skill	44	19%	28	45%	5	18%	2	7%	6	5%
Flow restricted oxygen powered ventilation device										
1 – No knowledge	21	9%	0	0%	1	4%	1	3%	16	14%
2 – Heard of this skill	66	29%	7	11%	10	36%	12	40%	49	42%
3 – Watched others do this skill	24	10%	5	8%	1	4%	4	13%	12	10%
4 – Assisted others in doing this skill	20	9%	3	5%	3	11%	3	10%	12	10%
5 – A working knowledge of when and how to apply this skill	48	21%	19	31%	7	25%	8	27%	15	13%
6 – Full competency at this skill	52	23%	28	45%	6	21%	2	7%	12	10%
Use of forceps to remove airway obstruction (Direct Visual)										
1 – No knowledge	15	6%	0	0%	0	0%	4	13%	12	10%
2 – Heard of this skill	38	16%	2	3%	4	14%	2	7%	32	28%
3 – Watched others do this skill	43	19%	5	8%	7	25%	6	20%	32	28%
4 – Assisted others in doing this skill	17	7%	2	3%	0	0%	4	13%	13	11%
5 – A working knowledge of when and how to apply this skill	35	15%	12	19%	5	18%	4	13%	16	14%
6 – Full competency at this skill	83	36%	41	66%	12	43%	10	33%	11	9%

AIRWAY & BREATHING I have ...

	All Data	%	Instructor Coordinator	%	Training Officer 2	%	Training Officer 1	%	EMT-I	%
Oxygen Therapy - Nebulizer										
1 – No knowledge	1	0%	0	0%	0	0%	0	0%	1	1%
2 – Heard of this skill	5	2%	0	0%	1	4%	0	0%	5	4%
3 – Watched others do this skill	12	5%	1	2%	1	4%	4	13%	8	7%
4 – Assisted others in doing this skill	14	6%	2	3%	1	4%	1	3%	11	9%
5 – A working knowledge of when and how to apply this skill	51	22%	9	15%	5	18%	6	20%	36	31%
6 – Full competency at this skill	148	64%	50	81%	20	71%	19	63%	55	47%
End Tidal CO2 Monitoring/Canometry										
1 – No knowledge	13	6%	1	2%	0	0%	0	0%	12	10%
2 – Heard of this skill	22	10%	3	5%	3	11%	3	10%	19	16%
3 – Watched others do this skill	34	15%	4	6%	3	11%	4	13%	27	23%
4 – Assisted others in doing this skill	24	10%	6	10%	4	14%	2	7%	15	13%
5 – A working knowledge of when and how to apply this skill	51	22%	9	15%	8	29%	8	27%	27	23%
6 – Full competency at this skill	87	38%	39	63%	10	36%	13	43%	16	14%
Gastric Decompression - NG Tube										
1 – No knowledge	25	11%	1	2%	2	7%	3	10%	18	16%
2 – Heard of this skill	47	20%	5	8%	4	14%	4	13%	35	30%
3 – Watched others do this skill	37	16%	5	8%	5	18%	5	17%	28	24%
4 – Assisted others in doing this skill	23	10%	6	10%	3	11%	1	3%	11	9%
5 – A working knowledge of when and how to apply this skill	37	16%	11	18%	3	11%	8	27%	17	15%
6 – Full competency at this skill	62	27%	34	55%	11	39%	9	30%	7	6%
Gastric Decompression - OG Tube										
1 – No knowledge	34	15%	2	3%	3	11%	3	10%	26	22%
2 – Heard of this skill	57	25%	5	8%	6	21%	8	27%	43	37%
3 – Watched others do this skill	37	16%	5	8%	5	18%	6	20%	24	21%
4 – Assisted others in doing this skill	19	8%	8	13%	3	11%	1	3%	8	7%
5 – A working knowledge of when and how to apply this skill	28	12%	10	16%	4	14%	3	10%	9	8%
6 – Full competency at this skill	56	24%	32	52%	7	25%	9	30%	6	5%

Assessment I have ...

	All Data	%	Instructor Coordinator	%	Training Officer 2	%	Training Officer 1	%	EMT-I	%
Assessment for pharmacologic effect of administered medication										
1 – No knowledge	9	4%	0	0%	1	4%	1	3%	7	6%
2 – Heard of this skill	21	9%	1	2%	3	11%	2	7%	17	15%
3 – Watched others do this skill	33	14%	3	5%	1	4%	4	13%	25	22%
4 – Assisted others in doing this skill	32	14%	2	3%	3	11%	2	7%	23	20%
5 – A working knowledge of when and how to apply this skill	46	20%	10	16%	5	18%	9	30%	26	22%
6 – Full competency at this skill	90	39%	46	74%	15	54%	12	40%	18	16%

Pharmacological Intervention - Routes of Medication Administration I have ...

	All Data	%	Instructor Coordinator	%	Training Officer 2	%	Training Officer 1	%	EMT-I	%
Unit dose auto-injector for self, peer or patient care										
1 – No knowledge	1	0%	0	0%	1	4%	0	0%	0	0%
2 – Heard of this skill	15	6%	0	0%	0	0%	2	7%	9	8%
3 – Watched others do this skill	23	10%	1	2%	4	14%	2	7%	17	15%
4 – Assisted others in doing this skill	11	5%	2	3%	2	7%	1	3%	7	6%
5 – A working knowledge of when and how to apply this skill	60	26%	12	19%	4	14%	10	33%	38	33%
6 – Full competency at this skill	121	52%	47	76%	17	61%	15	50%	45	39%
Oral (PO)										
1 – No knowledge	3	1%	0	0%	1	4%	0	0%	2	2%
2 – Heard of this skill	3	1%	0	0%	0	0%	0	0%	2	2%
3 – Watched others do this skill	18	8%	2	3%	1	4%	2	7%	12	10%
4 – Assisted others in doing this skill	19	8%	1	2%	4	14%	3	10%	15	13%
5 – A working knowledge of when and how to apply this skill	45	19%	5	8%	2	7%	7	23%	33	28%
6 – Full competency at this skill	143	62%	54	87%	20	71%	18	60%	52	45%
Intramuscular (IM)										
1 – No knowledge	6	3%	1	2%	1	4%	2	7%	3	3%
2 – Heard of this skill	17	7%	0	0%	2	7%	1	3%	13	11%
3 – Watched others do this skill	54	23%	4	6%	6	21%	5	17%	44	38%
4 – Assisted others in doing this skill	24	10%	2	3%	0	0%	2	7%	18	16%
5 – A working knowledge of when and how to apply this skill	34	15%	11	18%	3	11%	4	13%	18	16%
6 – Full competency at this skill	96	42%	44	71%	16	57%	16	53%	20	17%
Subcutaneous (SQ)										
1 – No knowledge	7	3%	0	0%	1	4%	2	7%	5	4%
2 – Heard of this skill	20	9%	0	0%	2	7%	0	0%	16	14%
3 – Watched others do this skill	53	23%	3	5%	6	21%	5	17%	43	37%
4 – Assisted others in doing this skill	18	8%	1	2%	0	0%	1	3%	12	10%
5 – A working knowledge of when and how to apply this skill	29	13%	9	15%	3	11%	4	13%	16	14%
6 – Full competency at this skill	104	45%	49	79%	16	57%	18	60%	24	21%
Intranasal										
1 – No knowledge	14	6%	0	0%	3	11%	3	10%	10	9%
2 – Heard of this skill	49	21%	7	11%	3	11%	7	23%	34	29%
3 – Watched others do this skill	48	21%	6	10%	4	14%	4	13%	37	32%
4 – Assisted others in doing this skill	16	7%	3	5%	1	4%	2	7%	6	5%
5 – A working knowledge of when and how to apply this skill	30	13%	11	18%	4	14%	3	10%	14	12%
6 – Full competency at this skill	74	32%	35	56%	13	46%	11	37%	15	13%

Pharmacological Intervention - Routes of Medication Administration I have ...

	All Data	%	Instructor Coordinator	%	Training Officer 2	%	Training Officer 1	%	EMT-I	%
Nebulized										
1 – No knowledge	0	0%	0	0%	0	0%	0	0%	0	0%
2 – Heard of this skill	6	3%	0	0%	0	0%	1	3%	6	5%
3 – Watched others do this skill	9	4%	0	0%	2	7%	2	7%	6	5%
4 – Assisted others in doing this skill	14	6%	2	3%	1	4%	1	3%	12	10%
5 – A working knowledge of when and how to apply this skill	58	25%	6	10%	7	25%	6	20%	40	34%
6 – Full competency at this skill	144	62%	54	87%	18	64%	20	67%	52	45%
Sub-Lingual (SL)										
1 – No knowledge	1	0%	0	0%	1	4%	0	0%	0	0%
2 – Heard of this skill	9	4%	0	0%	0	0%	1	3%	7	6%
3 – Watched others do this skill	20	9%	1	2%	1	4%	1	3%	11	9%
4 – Assisted others in doing this skill	17	7%	1	2%	2	7%	1	3%	14	12%
5 – A working knowledge of when and how to apply this skill	47	20%	8	13%	3	11%	7	23%	33	28%
6 – Full competency at this skill	137	59%	52	84%	21	75%	20	67%	51	44%
Buccal										
1 – No knowledge	49	21%	3	5%	5	18%	5	17%	34	29%
2 – Heard of this skill	39	17%	6	10%	3	11%	6	20%	30	26%
3 – Watched others do this skill	22	10%	1	2%	2	7%	1	3%	15	13%
4 – Assisted others in doing this skill	10	4%	4	6%	1	4%	1	3%	5	4%
5 – A working knowledge of when and how to apply this skill	28	12%	9	15%	5	18%	4	13%	13	11%
6 – Full competency at this skill	83	36%	39	63%	12	43%	13	43%	19	16%
Rectal										
1 – No knowledge	23	10%	2	3%	1	4%	5	17%	17	15%
2 – Heard of this skill	51	22%	4	6%	3	11%	4	13%	43	37%
3 – Watched others do this skill	34	15%	3	5%	4	14%	3	10%	20	17%
4 – Assisted others in doing this skill	11	5%	2	3%	2	7%	2	7%	7	6%
5 – A working knowledge of when and how to apply this skill	32	14%	14	23%	5	18%	5	17%	14	12%
6 – Full competency at this skill	80	35%	37	60%	13	46%	11	37%	15	13%
Intravenous Push - Fast (IV)										
1 – No knowledge	4	2%	0	0%	1	4%	1	3%	2	2%
2 – Heard of this skill	11	5%	1	2%	0	0%	1	3%	11	9%
3 – Watched others do this skill	46	20%	1	2%	4	14%	6	20%	38	33%
4 – Assisted others in doing this skill	26	11%	3	5%	4	14%	1	3%	18	16%
5 – A working knowledge of when and how to apply this skill	40	17%	9	15%	3	11%	7	23%	22	19%
6 – Full competency at this skill	104	45%	48	77%	16	57%	14	47%	25	22%
Intravenous Push - Titrated (IV)										
1 – No knowledge	7	3%	0	0%	1	4%	1	3%	4	3%
2 – Heard of this skill	12	5%	2	3%	0	0%	1	3%	12	10%
3 – Watched others do this skill	46	20%	2	3%	4	14%	6	20%	34	29%
4 – Assisted others in doing this skill	29	13%	4	6%	4	14%	1	3%	22	19%
5 – A working knowledge of when and how to apply this skill	36	16%	6	10%	4	14%	7	23%	21	18%
6 – Full competency at this skill	101	44%	48	77%	15	54%	14	47%	23	20%

Pharmacological Intervention - Administered Medication I have ...

	All Data	%	Instructor Coordinator	%	Training Officer 2	%	Training Officer 1	%	EMT-I	%
2-PAM Cl (Pralidoxime Chloride)										
1 – No knowledge	111	48%	16	26%	9	32%	11	37%	78	67%
2 – Heard of this skill	51	22%	16	26%	6	21%	6	20%	21	18%
3 – Watched others do this skill	12	5%	1	2%	3	11%	1	3%	7	6%
4 – Assisted others in doing this skill	3	1%	2	3%	0	0%	0	0%	0	0%
5 – A working knowledge of when and how to apply this skill	32	14%	16	26%	6	21%	9	30%	7	6%
6 – Full competency at this skill	22	10%	11	18%	4	14%	3	10%	3	3%
Aspirin (ASA) for chest pain										
1 – No knowledge	2	1%	0	0%	1	4%	1	3%	1	1%
2 – Heard of this skill	5	2%	0	0%	0	0%	0	0%	5	4%
3 – Watched others do this skill	15	6%	1	2%	2	7%	2	7%	11	9%
4 – Assisted others in doing this skill	15	6%	0	0%	1	4%	0	0%	13	11%
5 – A working knowledge of when and how to apply this skill	53	23%	7	11%	6	21%	8	27%	33	28%
6 – Full competency at this skill	141	61%	54	87%	18	64%	19	63%	53	46%
Atropine										
1 – No knowledge	15	6%	1	2%	1	4%	2	7%	11	9%
2 – Heard of this skill	18	8%	1	2%	1	4%	1	3%	13	11%
3 – Watched others do this skill	69	30%	6	10%	5	18%	9	30%	51	44%
4 – Assisted others in doing this skill	26	11%	4	6%	4	14%	1	3%	22	19%
5 – A working knowledge of when and how to apply this skill	20	9%	6	10%	4	14%	3	10%	11	9%
6 – Full competency at this skill	83	36%	44	71%	13	46%	14	47%	8	7%
Atrovent										
1 – No knowledge	23	10%	2	3%	1	4%	2	7%	16	14%
2 – Heard of this skill	28	12%	1	2%	1	4%	4	13%	22	19%
3 – Watched others do this skill	45	19%	10	16%	5	18%	5	17%	27	23%
4 – Assisted others in doing this skill	18	8%	2	3%	4	14%	2	7%	16	14%
5 – A working knowledge of when and how to apply this skill	29	13%	8	13%	3	11%	4	13%	15	13%
6 – Full competency at this skill	88	38%	39	63%	14	50%	13	43%	20	17%
Beta-agonist (Proventil/Albuterol/Ventolin, et al)										
1 – No knowledge	13	6%	0	0%	1	4%	2	7%	10	9%
2 – Heard of this skill	15	6%	1	2%	0	0%	1	3%	10	9%
3 – Watched others do this skill	19	8%	2	3%	3	11%	3	10%	12	10%
4 – Assisted others in doing this skill	19	8%	0	0%	3	11%	1	3%	16	14%
5 – A working knowledge of when and how to apply this skill	39	17%	6	10%	4	14%	6	20%	27	23%
6 – Full competency at this skill	126	55%	53	85%	17	61%	17	57%	41	35%
Dextrose - 25% and 50%										
1 – No knowledge	4	2%	0	0%	1	4%	0	0%	3	3%
2 – Heard of this skill	17	7%	1	2%	1	4%	1	3%	13	11%
3 – Watched others do this skill	49	21%	2	3%	4	14%	6	20%	33	28%
4 – Assisted others in doing this skill	33	14%	5	8%	3	11%	4	13%	30	26%
5 – A working knowledge of when and how to apply this skill	37	16%	9	15%	6	21%	6	20%	21	18%
6 – Full competency at this skill	91	39%	45	73%	13	46%	13	43%	16	14%

Pharmacological Intervention - Administered Medication I have ...

	All Data	%	Instructor Coordinator	%	Training Officer 2	%	Training Officer 1	%	EMT-I	%
Epinephrine 1:1,000										
1 – No knowledge	6	3%	0	0%	1	4%	2	7%	4	3%
2 – Heard of this skill	17	7%	1	2%	1	4%	0	0%	13	11%
3 – Watched others do this skill	64	28%	4	6%	9	32%	9	30%	47	41%
4 – Assisted others in doing this skill	22	10%	2	3%	1	4%	0	0%	19	16%
5 – A working knowledge of when and how to apply this skill	33	14%	11	18%	2	7%	6	20%	20	17%
6 – Full competency at this skill	89	39%	44	71%	14	50%	13	43%	13	11%
Epinephrine 1:10,000										
1 – No knowledge	9	4%	0	0%	1	4%	2	7%	6	5%
2 – Heard of this skill	21	9%	1	2%	2	7%	1	3%	17	15%
3 – Watched others do this skill	68	29%	7	11%	9	32%	9	30%	50	43%
4 – Assisted others in doing this skill	23	10%	3	5%	0	0%	1	3%	18	16%
5 – A working knowledge of when and how to apply this skill	28	12%	8	13%	3	11%	5	17%	17	15%
6 – Full competency at this skill	82	35%	43	69%	13	46%	12	40%	8	7%
Glucagon										
1 – No knowledge	5	2%	0	0%	1	4%	1	3%	3	3%
2 – Heard of this skill	18	8%	2	3%	0	0%	1	3%	15	13%
3 – Watched others do this skill	43	19%	6	10%	6	21%	3	10%	31	27%
4 – Assisted others in doing this skill	29	13%	3	5%	4	14%	5	17%	24	21%
5 – A working knowledge of when and how to apply this skill	42	18%	10	16%	3	11%	7	23%	22	19%
6 – Full competency at this skill	94	41%	41	66%	14	50%	13	43%	21	18%
Nitrous oxide										
1 – No knowledge	40	17%	2	3%	5	18%	2	7%	32	28%
2 – Heard of this skill	84	36%	18	29%	8	29%	13	43%	51	44%
3 – Watched others do this skill	38	16%	9	15%	4	14%	5	17%	20	17%
4 – Assisted others in doing this skill	7	3%	1	2%	0	0%	2	7%	3	3%
5 – A working knowledge of when and how to apply this skill	25	11%	10	16%	6	21%	4	13%	6	5%
6 – Full competency at this skill	37	16%	22	35%	5	18%	4	13%	4	3%
Narcan (Naloxone)										
1 – No knowledge	14	6%	0	0%	1	4%	2	7%	11	9%
2 – Heard of this skill	36	16%	3	5%	2	7%	2	7%	30	26%
3 – Watched others do this skill	61	26%	8	13%	7	25%	8	27%	42	36%
4 – Assisted others in doing this skill	17	7%	2	3%	2	7%	0	0%	13	11%
5 – A working knowledge of when and how to apply this skill	23	10%	6	10%	3	11%	6	20%	12	10%
6 – Full competency at this skill	80	35%	43	69%	13	46%	12	40%	8	7%
Nitroglycerin										
1 – No knowledge	4	2%	0	0%	1	4%	0	0%	2	2%
2 – Heard of this skill	3	1%	0	0%	0	0%	0	0%	3	3%
3 – Watched others do this skill	23	10%	1	2%	2	7%	2	7%	15	13%
4 – Assisted others in doing this skill	26	11%	0	0%	2	7%	4	13%	22	19%
5 – A working knowledge of when and how to apply this skill	54	23%	9	15%	3	11%	10	33%	38	33%
6 – Full competency at this skill	121	52%	52	84%	20	71%	14	47%	36	31%

Medical/Cardiac Care - Cardiac Care I have ...

	All Data	%	Instructor Coordinator	%	Training Officer 2	%	Training Officer 1	%	EMT-I	%
Cardiac monitoring - apply electrodes										
1 – No knowledge	0	0%	0	0%	0	0%	0	0%	0	0%
2 – Heard of this skill	0	0%	0	0%	0	0%	0	0%	0	0%
3 – Watched others do this skill	5	2%	0	0%	2	7%	0	0%	5	4%
4 – Assisted others in doing this skill	10	4%	1	2%	0	0%	1	3%	10	9%
5 – A working knowledge of when and how to apply this skill	45	19%	6	10%	4	14%	8	27%	31	27%
6 – Full competency at this skill	171	74%	55	89%	22	79%	21	70%	70	60%
Cardiac monitoring - multi lead (acquire but non-interpretive)										
1 – No knowledge	2	1%	0	0%	0	0%	1	3%	2	2%
2 – Heard of this skill	2	1%	0	0%	0	0%	0	0%	2	2%
3 – Watched others do this skill	15	6%	2	3%	3	11%	1	3%	15	13%
4 – Assisted others in doing this skill	37	16%	3	5%	2	7%	2	7%	30	26%
5 – A working knowledge of when and how to apply this skill	46	20%	7	11%	3	11%	9	30%	29	25%
6 – Full competency at this skill	129	56%	50	81%	20	71%	17	57%	38	33%
Cardiac monitoring - Single Lead Intepretation										
1 – No knowledge	9	4%	1	2%	1	4%	1	3%	8	7%
2 – Heard of this skill	8	3%	0	0%	2	7%	0	0%	7	6%
3 – Watched others do this skill	45	19%	3	5%	3	11%	4	13%	44	38%
4 – Assisted others in doing this skill	29	13%	4	6%	2	7%	4	13%	28	24%
5 – A working knowledge of when and how to apply this skill	34	15%	5	8%	4	14%	7	23%	15	13%
6 – Full competency at this skill	106	46%	49	79%	16	57%	14	47%	14	12%
Defibrillation - Manual										
1 – No knowledge	5	2%	0	0%	1	4%	0	0%	5	4%
2 – Heard of this skill	12	5%	1	2%	1	4%	1	3%	12	10%
3 – Watched others do this skill	45	19%	3	5%	6	21%	6	20%	45	39%
4 – Assisted others in doing this skill	24	10%	4	6%	0	0%	1	3%	24	21%
5 – A working knowledge of when and how to apply this skill	31	13%	4	6%	3	11%	4	13%	13	11%
6 – Full competency at this skill	114	49%	50	81%	17	61%	18	60%	17	15%

Medical/Cardiac Care - Medical I have ...

Urinary Catheter Assessment and Monitoring (Not Inserting)										
1 – No knowledge	20	9%	1	2%	1	4%	2	7%	21	18%
2 – Heard of this skill	26	11%	2	3%	3	11%	2	7%	40	34%
3 – Watched others do this skill	30	13%	3	5%	3	11%	4	13%	21	18%
4 – Assisted others in doing this skill	21	9%	5	8%	2	7%	0	0%	7	6%
5 – A working knowledge of when and how to apply this skill	45	19%	11	18%	4	14%	14	47%	17	15%
6 – Full competency at this skill	89	39%	40	65%	15	54%	8	27%	9	8%

Intravenous Management I have . . .

	All Data	%	Instructor Coordinator	%	Training Officer 2	%	Training Officer 1	%	EMT-I	%
Monitored an arterial line - capped in transport										
1 – No knowledge	25	11%	1	2%	1	4%	4	13%	21	18%
2 – Heard of this skill	55	24%	10	16%	7	25%	4	13%	40	34%
3 – Watched others do this skill	32	14%	7	11%	4	14%	5	17%	21	18%
4 – Assisted others in doing this skill	17	7%	6	10%	2	7%	0	0%	7	6%
5 – A working knowledge of when and how to apply this skill	48	21%	14	23%	6	21%	9	30%	17	15%
6 – Full competency at this skill	53	23%	24	39%	8	29%	8	27%	9	8%
Obtained blood for sampling										
1 – No knowledge	1	0%	0	0%	0	0%	0	0%	1	1%
2 – Heard of this skill	2	1%	0	0%	0	0%	0	0%	2	2%
3 – Watched others do this skill	8	3%	3	5%	1	4%	0	0%	5	4%
4 – Assisted others in doing this skill	7	3%	1	2%	0	0%	0	0%	6	5%
5 – A working knowledge of when and how to apply this skill	48	21%	6	10%	3	11%	8	27%	33	28%
6 – Full competency at this skill	165	71%	52	84%	24	86%	22	73%	69	59%
Administered D5W (Dextrose, 5%)										
1 – No knowledge	4	2%	0	0%	0	0%	1	3%	4	3%
2 – Heard of this skill	9	4%	0	0%	0	0%	0	0%	8	7%
3 – Watched others do this skill	24	10%	0	0%	3	11%	2	7%	17	15%
4 – Assisted others in doing this skill	21	9%	3	5%	2	7%	1	3%	18	16%
5 – A working knowledge of when and how to apply this skill	42	18%	8	13%	5	18%	7	23%	27	23%
6 – Full competency at this skill	131	57%	51	82%	18	64%	19	63%	42	36%
Lactated Ringers (LR)										
1 – No knowledge	0	0%	0	0%	0	0%	0	0%	0	0%
2 – Heard of this skill	5	2%	0	0%	0	0%	0	0%	3	3%
3 – Watched others do this skill	9	4%	0	0%	0	0%	1	3%	6	5%
4 – Assisted others in doing this skill	7	3%	0	0%	1	4%	0	0%	5	4%
5 – A working knowledge of when and how to apply this skill	42	18%	7	11%	3	11%	7	23%	29	25%
6 – Full competency at this skill	168	73%	55	89%	24	86%	22	73%	73	63%
Normal Saline (NS)										
1 – No knowledge	0	0%	0	0%	0	0%	0	0%	0	0%
2 – Heard of this skill	0	0%	0	0%	0	0%	0	0%	0	0%
3 – Watched others do this skill	2	1%	0	0%	0	0%	0	0%	2	2%
4 – Assisted others in doing this skill	1	0%	0	0%	0	0%	0	0%	1	1%
5 – A working knowledge of when and how to apply this skill	47	20%	7	11%	3	11%	7	23%	33	28%
6 – Full competency at this skill	180	78%	55	89%	25	89%	23	77%	80	69%
Initiated a saline lock										
1 – No knowledge	1	0%	0	0%	0	0%	0	0%	1	1%
2 – Heard of this skill	1	0%	0	0%	0	0%	0	0%	1	1%
3 – Watched others do this skill	6	3%	1	2%	1	4%	0	0%	6	5%
4 – Assisted others in doing this skill	11	5%	3	5%	0	0%	2	7%	7	6%
5 – A working knowledge of when and how to apply this skill	49	21%	5	8%	6	21%	11	37%	29	25%
6 – Full competency at this skill	160	69%	53	85%	21	75%	17	57%	69	59%

Intravenous Management I have . . .

	All Data	%	Instructor Coordinator	%	Training Officer 2	%	Training Officer 1	%	EMT-I	%
Accessed peripheral in-dwelling IV catheters										
1 – No knowledge	18	8%	0	0%	1	4%	3	10%	15	13%
2 – Heard of this skill	21	9%	2	3%	1	4%	1	3%	16	14%
3 – Watched others do this skill	30	13%	5	8%	3	11%	2	7%	25	22%
4 – Assisted others in doing this skill	27	12%	9	15%	3	11%	4	13%	14	12%
5 – A working knowledge of when and how to apply this skill	36	16%	8	13%	6	21%	6	20%	14	12%
6 – Full competency at this skill	98	42%	38	61%	14	50%	14	47%	31	27%

Comments received from the survey of currently certified EMT-I responders did not directly focus on the survey items. The themes in the comments section were:

1. Concern about the ability to complete the training and education near home.
2. Concern about the ability to master the material.
3. Concern that large numbers of currently certified technicians will drop their certification.

Comments received from the survey of current instructor/coordinators and training officers fell into the following themes:

1. There must be a competency component to the curricula in order to ensure mastery.
2. Instructors are concerned about their ability to teach the material in those cases where the instructor is not at the MICT level.
3. Instructors are concerned about the ability of their peers to teach appropriately. This was repeatedly stressed in both the survey and in the focus group sessions.
4. Instructors are concerned about the need for third party verification of both instruction and competency/mastery.

<u>Focus Group Themes</u>

1. Adequate support materials are needed for classroom instruction and implementation of the new scope.
2. Buy-in must be achieved for both instructors and students.
3. Competency of instructors and students in skills and knowledge must be shown through independent testing.
4. Curriculum must be of quality and be flexible to allow instructors to meet local needs.
5. Need to insure that instructors are fully competent, ethical, and of quality.

Gap Analysis

The gap analysis needs the following clarification. The *n* in this survey was less than desired for the total number of certified EMT-I responders and instructors in the State of Kansas. However, we make the speculation that those who did respond are reflective of the larger group to some extent. Our survey revealed areas in which less than full competency was reported by respondents. These findings suggest that in the development of the curricula, increased attention will need to be given to some areas of the new scope of practice.

The data obtained from the survey tool reveals the following areas of gap between the desired level of knowledge for EMT-I responders and the current level of knowledge for certified EMT-I responders. When we identified a significant gap in knowledge, we did so because less than 70% of the respondents reported full competency. A critical gap indicates that less than 50% of the respondents reported full competency.

Areas identified to have a significant lack of knowledge among current EMT-Intermediate responders:

1. Application of cardiac monitoring electrodes for standard lead monitoring (Patch placement only)
2. Obtaining blood for sampling
3. Lactated Ringers (LR)
4. Normal Saline (NS)
5. Initiating a saline lock

Areas identified to have a critical lack of knowledge among current EMT-I responders:

1. Bag-Valve-Mask with in-line small volume nebulizer
2. Automatic Transport Ventilator
3. Manually Triggered Ventilator
4. Flow Restricted Oxygen Powered Ventilation Device
5. Use of forceps to remove airway obstruction (Direct Visual)
6. Oxygen Therapy - Nebulizer
7. End Tidal CO_2 Monitoring/Capnometry
8. Gastric Decompression - NG Tube
9. Gastric Decompression - OG Tube
10. Assessment for pharmacologic effect of administered medication
11. Unit does auto-injector for self, peer, or patient care
12. Oral administration of medication
13. Intramuscular administration of medication
14. Subcutaneous administration of medication
15. Intranasal administration of medication
16. Nebulized administration of medication

17. Sub-Lingual administration of medication
18. Buccal administration of medication
19. Rectal administration of medication
20. Intravenous Push - Fast (IV) administration of medication
21. Intravenous Push - Titrated (IV) administration of medication
22. Use of 2-PAM Cl (Pralidoxime Chloride)
23. Use of Aspirin for chest pain
24. Use of Atropine
25. Use of Atrovent
26. Use of Beta-Agonist
27. Use of Dextrose 25% and 50% (IV)
28. Use of Epinephrine 1:1,000
29. Use of Epinephrine 1:10,000
30. Use of Glucagon
31. Use of Nitrous Oxide
32. Use of Narcan (Naloxone)
33. Application of cardiac monitoring electrodes and acquisition of multi-lead monitoring (Non Interpretive)
34. Cardiac monitoring and interpretation of single lead ECG
35. Manual Defibrillation
36. Urinary catheter assessment and monitoring (Not insertion)
37. Monitoring a capped arterial line
38. Administration of Dextrose (5% Solution) (D5W)
39. Accessing peripheral in-dwelling IV catheters

The survey revealed significant instructor lack of knowledge in the following areas:

1. Bag-Valve-Mask with in-line small volume nebulizer (I/C Only)
2. Use of forceps to remove airway obstruction (Direct Visual) (I/C Only)
3. Oxygen therapy - Nebulizer (TO 1 only)
4. End Tidal CO_2 Monitoring/Capnometry (I/C Only)
5. Gastric Decompression - NG Tube (I/C Only)
6. Gastric Decompression - OG Tube (I/C Only)
7. Assessment for pharmacologic effect of administered medication (TO 2 Only)
8. Unit does auto-injector for self, peer, or patient care (TO 1 and 2)
9. Oral administration of medication (TO 1 only)
10. Intramuscular administration of medication (TO 1 and 2)
11. Subcutaneous administration of medication (TO 1 and 2)
12. Intranasal administration of medication (I/C Only)
13. Nebulized administration of medication (TO 1 and 2)
14. Sub-Lingual administration of medication (TO 1 only)
15. Buccal administration of medication (I/C Only)
16. Rectal administration of medication (I/C Only)
17. Intravenous Push - Fast (IV) administration of medication (TO 2 Only)

18. Intravenous Push - Titrated (IV) administration of medication (TO 2 Only)
19. Use of Aspirin for chest pain (TO 1 and 2)
20. Use of Atrovent (I/C Only)
21. Use of Beta-Agonist (TO 1 and 2)
22. Use of Epinephrine 1:1,000 (TO 2 Only)
23. Use of Epinephrine 1:10,000 (I/C Only)
24. Use of Glucagon (I/C Only)
25. Use of Narcan (Naloxone) (I/C Only)
26. Application of cardiac monitoring electrodes and acquisition of multi-lead monitoring (Non Interpretive) (TO 1 Only)
27. Cardiac monitoring and interpretation of single lead ECG (TO 2 Only)
28. Defibrillation - Manual (TO 1 and 2)
29. Urinary catheter assessment and monitoring (Not insertion) (I/C and TO 2)
30. Administration of Dextrose (5% Solution) (D5W) (TO 1 and 2)
31. Initiating a saline lock (TO 1 Only)
32. Accessing peripheral in-dwelling IV catheters (I/C and TO 2)

The survey revealed a critical instructor lack of knowledge in the following areas:

1. Bag-Valve-Mask with in-line small volume nebulizer (TO 1 and 2)
2. Automatic Transport Ventilator (All instructor levels)
3. Manually Triggered Ventilator (All instructor levels)
4. Flow Restricted Oxygen Powered Ventilation Device (All instructor levels)
5. Use of forceps to remove airway obstruction (Direct Visual) (TO 1 and 2)
6. End Tidal CO_2 Monitoring/Capnometry (TO 1 and 2)
7. Gastric Decompression - NG Tube (TO 1 and 2)
8. Gastric Decompression - OG Tube (TO 1 and 2)
9. Assessment for pharmacologic effect of administered medication TO 1 only)
10. Intranasal administration of medication (TO 1 and 2)
11. Buccal administration of medication (TO 1 and 2)
12. Rectal administration of medication TP 1 and 2)
13. Intravenous Push - Fast (IV) administration of medication TO 1 only)
14. Intravenous Push - Titrated (IV) administration of medication (TO 1 only)
15. Use of 2-PAM Cl (Pralidoxime Chloride) (All instructor levels)
16. Use of Atropine (TO 1 and 2)
17. Use of Atrovent (TO 1 and 2)
18. Use of Dextrose 25% and 50% (IV) (TO 1 and 2)
19. Use of Epinephrine 1:1,000 (TO 1 only)
20. Use of Epinephrine 1:10,000 (TO 1 and 2)
21. Use of Glucagon (TO 1 and 2)
22. Use of Nitrous Oxide (All instructor levels)
23. Use of Narcan (Naloxone) (TO 1 and 2)
24. Use of Nitroglycerin (TO 1 Only)
25. Cardiac monitoring and interpretation of single lead ECG (TO 1 Only)
26. Urinary catheter assessment and monitoring (Not insertion) (TO 1 Only)

27. Monitoring a capped arterial line (All instructor levels)
28. Accessing peripheral in-dwelling IV catheters (TO 1 Only)

Feedback from the respondents indicates that the following areas need to be addressed in order to successfully implement the new curricula:

1. There is a great deal of concern over the expansion of the scope for this level causing existing EMT-Intermediate providers to drop their certification. Respondents strongly encourage the course designers to consider what is put into the course as it relates to the ability of people to successfully complete the course.
2. Services need to work to promote buy in for both those who will transition and those who will teach. This may help diminish the concerns of #1.
3. Instructors need to show competency in skills before teaching. There is speculation that only MICT, RN, or other advanced provider instructors will be able to actually teach the transition for this level.
4. A mechanism for showing competency that is valid and accountable must be developed.
5. Hands on work with the new skills are critical. Respondents consider this much more important than the didactic knowledge.
6. Advanced EMTs need an in-depth understanding of the pharmacology; including physiology, pathophysiology, and pharmacokinetics.
7. Respondents are worried about the quality of education that will be given by the instructors. There is a lot of feedback indicating concern that people will be "passed" without the necessary skills.

Gap Summary

The list of items necessary for EMT-Is to bridge to the new Advanced EMT scope is lengthy and includes a significant amount of information that the respondents did not know. There is significant information that the instructors do not know. Instructors will need to begin an education process of their own now in order to more fully understand the content before the train the trainer courses in the fall of 2010. Time on background will need to be spent to ensure a smooth transition not only with skills, but also with the knowledge to avoid mistakes. This course will be intensive and depth of topic will be necessary in order to prepare new AEMTs to work in the field without frequent and potentially harmful errors.

The transition to the new scope for Advanced EMT will require students who embrace the transition process and instructors who have the knowledge base and desire to ensure transfer of information that is legitimate. Instructors who have significant areas of weakness in the topics included in the transition need to secure understanding before teaching the curriculum. Some instructors may choose to forgo instruction of this transition curriculum - deferring instead to qualified and knowledgeable instructors. The course designers and Kansas Board of EMS need to determine who will be eligible to teach this curriculum.

Task List

Airway and Breathing

1. BVM Ventilation using an in-line small volume nebulizer
2. Use of an Automatic Transport Ventilator
3. Use of a Manually Triggered Ventilator
4. Use of Flow Restricted Oxygen Powered Device
5. Removal of foreign airway object with forceps (unaided visual inspection only)
6. Use of a nebulizer
7. End-Tidal CO2 Monitoring/Capnometry
8. Gastric decompression with NG tube with any supra glottic device in scope
9. Gastric decompression with OG tube with any supra-glottic device in scope

   ** NOTE: Endotracheal Intubation is REMOVED from this level of practice.

Pharmacological Intervention

10. Administration of BioChem auto injector (Mark 1 Kit with Atropine and 2-Pam)
11. Administration of oral analgesics
12. Administration of medications via the following routes: IV Push,
13. aerosolized, buccal, IM, intranasal, rectal, and SC
14. Administration of physician approved OTC medications
15. Administration of Aspirin for chest pain - Medication carried on ambulance
16. Administration of Auto Injector Epinephrine for allergic reaction - Medication carried on ambulance
17. Administration of Beta 2 specific Bronchodilators for respiratory distress - Medication carried on ambulance
18. Administration of Glucagon - Medication carried on ambulance
19. Administration of D50W and D25W - Medication carried on ambulance
20. Administration of Nitrous Oxide for pain relief - Medication carried on ambulance
21. Administration of Epinephrine 1:10,000 for cardiac arrest - Medication carried on ambulance
22. Administration of Narcan - Medication carried on ambulance

Medical Care

23. Application of 3/4 Lead cardiac electrodes with interpretation

    Manual Defibrillation
24. Application of 12 Lead cardiac electrodes (to assist setting up the monitor)
25. Monitoring of Arterial Line - Capped - During Transport
26. Assessment and monitoring of urinary catheterization

27. Initiation of a saline lock
28. Access indwelling intravenous catheters (peripheral)
29. Place and access Intraosseous lines (adult and pediatric)

Course Vision, Goals, and Objectives

Course Vision

The vision of this course is to improve the capabilities of responders in Kansas to ensure an appropriate response to medical emergencies in each community.

Course Goal

The goal of this course is to provide a bridge for existing Emergency Medical Technician-Intermediates to gain certification as Advanced Emergency Medical Technicians who are competent in the knowledge, skills and abilities needed to practice at this new level of certification and within the new scope of practice.

Course Objectives

(C) - Cognitive Objective (P) - Psychomotor Objective (A) - Affective Objective
Each objective, terminal and enabling, has the corresponding Bloom's level indicated.

Preparatory

Terminal Objective 1:

Given course information, the student will be able to explain and apply basic anatomy and physiology of the human body as it relates to the scope of practice for a Kansas Certified Advanced Emergency Medical Technician, as assessed by a minimum score of 75% in quizzes and written exams. *[Analyzing Level]*

Enabling Objectives 1:

Cognitive and Psychomotor

1.A: Given course information, the student will be able to employ proper anatomical definitions, as defined in course materials, in the performance of course activities. *[Applying Level]* [C]

1.B: Given course information, the student will be able to explain cellular anatomy and physiology as it applies to the AEMT, as assessed by a minimum score of 75% in quizzes and written exams. *[Analyzing Level]* [C]

1.C: Given course information, the student will be able to explain tissue anatomy and physiology as it applies to the AEMT, as assessed by a minimum score of 75% in quizzes and written exams. *[Analyzing Level]* [C]

1.D: Given course information, the student will be able to explain the circulatory system anatomy and physiology as it applies to the AEMT, as assessed by a minimum score of 75% in quizzes and written exams. *[Analyzing Level]* [C/P]

1.E: Given course information, the student will be able to explain the lymphatic and immune system anatomy and physiology as it applies to the AEMT, as assessed by a minimum score of 75% in quizzes and written exams. *[Analyzing Level]* [C]

1.F: Given course information, the student will be able to explain the respiratory system anatomy and physiology as it applies to the AEMT, as assessed by a minimum score of 75% in quizzes and written exams. *[Analyzing Level]* [C]

1.G: Given course information, the student will be able to explain the peripheral and central nervous system anatomy and physiology as it applies to the AEMT, as assessed by a minimum score of 75% in quizzes and written exams. *[Analyzing Level]* [C]

1.H: Given course information, the student will be able to explain the gastrointestinal system anatomy and physiology as it applies to the AEMT, as assessed by a minimum score of 75% in quizzes and written exams. *[Analyzing Level]* [C]

1.I: Given course information, the student will be able to explain the urinary system anatomy and physiology as it applies to the AEMT, as assessed by a minimum score of 75% in quizzes and written exams. *[Analyzing Level]* [C]

1.J: Given course information, the student will be able to explain the basic process of metabolism as it applies to the AEMT, as assessed by a minimum score of 75% in quizzes and written exams. *[Analyzing Level]* [C]

1.K: Given course information, the student will be able to explain body fluid balance and chemistry as it applies to the AEMT, as assessed by a minimum score of 75% in quizzes and written exams. *[Analyzing Level]* [C]

1.L: Given course information, the student will be able to explain the endocrine system as it applies to the AEMT, as assessed by a minimum score of 75% in quizzes and written exams. *[Analyzing Level]* [C]

1.M: Given course information, the student will be able to explain the integumentary system as it applies to the AEMT, as assessed by a minimum score of 75% in quizzes and written exams. *[Analyzing Level]* [C]

1.N: Given course information, the student will be able to explain the reproductive system as it applies to the AEMT, as assessed by a minimum score of 75% in quizzes and written exams. *[Analyzing Level]* [C]

1.O: Given course information, the student will be able to explain basic body chemistry as it applies to the AEMT, as assessed by a minimum score of 75% in quizzes and written exams. *[Analyzing Level]* [C]

Affective

1.P Given the anatomy and physiology content of this course, the student will develop and demonstrate an appreciation for the impact of human functioning as it relates to interventions performed by the AEMT. *[Valuing Level]* [A]

Terminal Objective 2:

Given course information, the student will be able to explain and apply basic pathophysiology of human disease processes as it relates to the scope of practice for a Kansas Certified Advanced Emergency Medical Technician and as assessed by a minimum score of 75% in quizzes and written exams. *[Analyzing Level]*

Enabling Objectives 2:

Cognitive and Psychomotor

2.A: Given course information, the student will be able explain the importance of pathophysiology to the AEMT, as defined in course materials, in the performance of course activities. *[Analyzing Level]* [C]

2.B Given course information, the student will be able to explain cellular changes in disease and injury as applicable to the practice of an AEMT, as defined in course materials. [Analyzing Level] [C]

2.C Given course information, the student will be able to explain hypoperfusion as applicable to the practice of an AEMT, as defined in course materials. [Analyzing Level] [C]

2.D Given course information, the student will be able to explain the cellular environment in disease and injury as applicable to the practice of an AEMT, as defined in course materials. [Analyzing Level] [C]

2.E Given course information, the student will be able to explain the body's self-defense mechanisms in disease and injury as applicable to the practice of an AEMT, as defined in course materials. [Analyzing Level] [C]

2.F Given course information, the student will be able to explain the process of inflammation in disease and injury as applicable to the practice of an AEMT, as defined in course materials. [Analyzing Level] [C]

2.G Given course information, the student will be able to explain the role of stress in disease and injury as applicable to the practice of an AEMT, as defined in course materials. [Analyzing Level] [C]

Affective

2.I Given the pathophysiology content of this course, the student will develop and demonstrate an appreciation for the impact of human functioning in disease and injury as it relates to interventions performed by the AEMT. *[Valuing Level]* [A]

Airway and Breathing

Terminal Objective 3:

Given an in-line, small-volume nebulizer, the student will integrate the use of the nebulizer and medication to deliver a therapeutic dose of medicine to a simulated patient without critical error, as defined by task analysis, check sheet and course information. *[Evaluating Level]*

Enabling Objectives 3:

Cognitive and Psychomotor

3.A: Given a nebulizer, the student will demonstrate the ability to assemble and use the nebulizer, without critical error as defined in the task analysis, check sheet, and course information. *[Applying Level]* [P]

3.B: Given a nebulizer, the student will explain the appropriate oxygen flow rates necessary for appropriate delivery of medication, as defined in the manufacturer's information. *[Analyzing Level]* [C]

3.C: Given a simulated patient, the student will demonstrate the use of a nebulizer with appropriate PPE and infection control precautions, without critical error as defined in the task analysis, check sheet, and course information. *[Applying Level]* [P]

3.D: Given a case studies and simulated patients, the student will evaluate the effectiveness of the nebulizer in the delivery of medication, with 90% or greater accuracy as defined by case study and scenario information. *[Evaluating Level]* [C/P]

3.F: Given a case studies and simulated patients, the student will specify whether the nebulizer should be used in a hand held fashion or in-line fashion, with 90% or greater accuracy as defined by case study and scenario information. *[Evaluating Level]* [C/P]

Affective

3.G Given the information in this module, the student will value the efficiency of nebulized (aerosolized) medication in the treatment of respiratory distress of an inflammatory nature. *[Valuing Level]* [A]

Terminal Objective 4:

Given course information, the student will explain the role and use of automatic transport ventilators in the care of patients transported by EMS, as defined by task analysis and course information. *[Understanding Level]*

Enabling Objectives 4:

Cognitive and Psychomotor

4.A: Given course information, the student will describe the indications for use of an automatic transport ventilator, as described in course information. *[Understanding Level]* [C]

4.B: Given course information, the student will describe the contraindications for use of an automatic transport ventilator, as described in course information. *[Understanding Level]* [C]

4.C: Given course information, the student will describe the advantages of an automatic transport ventilator, as described in course information. *[Understanding Level]* [C]

4.D: Given course information, the student will describe the disadvantages of an automatic transport ventilator, as described in course information. *[Understanding Level]* [C]

4.E: Given course information, the student will describe the complications associated with the use of an automatic transport ventilator, as described in course information. *[Understanding Level]* [C]

4.F: Given course information, the student will describe the technique for ventilating a patient with an automatic transport ventilator, as described in course information. *[Understanding Level]* [C]

Affective

4.G: Given information about automatic transport ventilators, the student will explain the role of the automatic transport ventilator and its impact on patient care in the EMS environment. *[Valuing Level]* [A]

Terminal Objective 5:

Given course information, the student will explain the role and use of manually triggered ventilators in the care of patients transported by EMS, as defined by task analysis and course information. *[Understanding Level]*

Enabling Objectives 5:

Cognitive and Psychomotor

5.A: Given course information, the student will describe the indications for use of a manually triggered ventilator, as described in course information. *[Understanding Level]* [C]

5.B: Given course information, the student will describe the contraindications for use of a manually triggered ventilator, as described in course information. *[Understanding Level]* [C]

5.C: Given course information, the student will describe the advantages of a manually triggered ventilator, as described in course information. *[Understanding Level]* [C]

5.D: Given course information, the student will describe the disadvantages of a manually triggered ventilator, as described in course information. *[Understanding Level]* [C]

5.E: Given course information, the student will describe the complications associated with the use of a manually triggered ventilator, as described in course information. *[Understanding Level]* [C]

5.F: Given course information, the student will describe the technique for ventilating a patient with a manually triggered ventilator, as described in course information. *[Understanding Level]* [C]

Affective

5.G: Given information about manually triggered ventilators, the student will explain the role of the manually triggered ventilator and its impact on patient care in the EMS environment. *[Valuing Level]* [A]

Terminal Objective 6:

Given course information, the student will explain the role and use of a Flow Restricted Oxygen Powered Device in the care of patients transported by EMS, as defined by task analysis and course information. *[Understanding Level]*

Enabling Objectives 6:

Cognitive and Psychomotor

6.A: Given course information, the student will describe the indications for use of a Flow Restricted Oxygen Powered Device, as described in course information. *[Understanding Level]* [C]

6.B: Given course information, the student will describe the contraindications for use of a Flow Restricted Oxygen Powered Device, as described in course information. *[Understanding Level]* [C]

6.C: Given course information, the student will describe the advantages of a Flow Restricted Oxygen Powered Device, as described in course information. *[Understanding Level]* [C]

6.D: Given course information, the student will describe the disadvantages of a Flow Restricted Oxygen Powered Device, as described in course information. *[Understanding Level]* [C]

6.E: Given course information, the student will describe the complications associated with the use of a Flow Restricted Oxygen Powered Device, as described in course information. *[Understanding Level]* [C]

6.F: Given course information, the student will describe the technique for ventilating a patient with a Flow Restricted Oxygen Powered Device, as described in course information. *[Understanding Level]* [C]

Affective

6.G: Given information about Flow Restricted Oxygen Powered Devices, the student will explain the role of the Flow Restricted Oxygen Powered Device and its impact on patient care in the EMS environment. *[Valuing Level]* [A]

Terminal Objective 7:

Given a simulated foreign body airway obstruction patient, the student will make use of a Magill or similar forceps to remove the obstruction (without the use of a laryngoscope), as defined by task analysis and course information. *[Applying Level]*

Enabling Objectives 7:

Cognitive and Psychomotor

7.A: Given scenarios and case studies on Foreign Body Airway Obstruction, the student will explain those situations in which the obstruction should be removed using direct visualization and a Magill or similar forceps, as defined by course information and the task analysis. *[Analyzing Level]* [C]

7.B: Given scenarios on Foreign Body Airway Obstruction, the student will demonstrate the removal of a Foreign Body Airway Obstruction by direct visualization with a Magill or similar forceps, as defined by course information and the task analysis. *[Analyzing Level]* [P]

Affective

7.C: Given information about airway forceps, the student will modify their care of obstructed airway to include appropriate use of forceps for removal of foreign body airway obstructions that cannot be removed by hand. *[Organization Level]* [A]

Terminal Objective 8:

Given a simulated patient, the student will analyze information derived from end tidal CO2 monitoring to develop a treatment plan for the patient, as defined by task analysis and course information. *[Analyzing Level]*

Enabling Objectives 8:

Cognitive and Psychomotor

8.A: Given course information, the student will explain the definitions associated with end tidal CO2 monitoring, to a level of 75% or greater on written evaluation. *[Analyzing Level]* [C]

8.B Given course information on end tidal CO2 monitoring, the student will explain how the process works, as defined by both colorimetric and electronic tool(s) being used in the classroom. *[Analyzing Level]* [C]

8.C: Given end tidal CO2 monitoring tools, the student will demonstrate how the colorimetric and electronic tool(s) work, as defined by the manufacturer and the course task analysis and check sheets. *[Applying Level]* [P]

8.D: Given simulated patients who are being ventilated, the student will demonstrate the ability to assess and interpret end tidal CO2 results, as assessed by local protocol adherence and a minimum 70% proficiency. *[Analyzing Level]* [C]

8.E: Given simulated patients who are being ventilated, the student will demonstrate the ability to assess and interpret end tidal CO2 waveforms, at a minimum 70% proficiency on written evaluation. *[Analyzing Level]* [C]

8.F: Given a "malfunctioning" end tidal CO2 monitoring device, the student will analyze the device and readings to determine the problem, as specified by the manufacturer and course information. *[Analyzing Level]* [C]

8.G: Given end-tidal CO2 monitoring values in case studies, the student will analyze the readings and construct a treatment plan, as assessed by the protocol being used in the classroom. *[Creating Level]* [C]

8.H: Given course information on end tidal CO2 monitoring, the student will explain the different end tidal options available to include capnography, as defined by the tool(s) being used in the classroom. *[Analyzing Level]* [C]

Affective

8.I: Given information about end tidal CO2 monitoring, the student will integrate these devices into the care of their patients to effect improved care and outcomes. *[Organization Level]* [A]

Terminal Objective 9:

Given a simulated patient with a supra-glottic airway that supports gastric tubes in place, the student will demonstrate the ability to perform gastric decompression using a gastric tube, as defined by task analysis and course information. *[Analyzing Level]*

Enabling Objectives 9:

Cognitive and Psychomotor

9.A: Given course information, the student will explain gastric distention and its effects on the ventilation of apneic patients, to a level of 75% or greater on written evaluation. *[Analyzing Level]* [C]

9.B: Given a simulated patient with a supra-glottic airway that supports gastric tubes in place, the student will specify the need for gastric insufflations using an gastric tube, as defined by course information, task analysis, and skill check sheet. *[Evaluating Level]* [C]

9.C: Given course information, the student will explain the indications, contraindications, advantages, disadvantages, complications, equipment and technique for inserting a gstric tube, as defined by course information, task analysis, and skill check sheet. *[Analyzing Level]* [C]

9.D: Given a simulated patient with a supra-glottic airway that supports gastric tubes in place, the student will demonstrate the ability to select, insert and utilize a gastric tube to correct gastric distention, as defined by course information, task analysis, and skill check sheet. *[Demonstrating Level]* [P]

Affective

9.E: Given information about gastric tubes, the student will identify the role they place in care of the patient with gastric distention and implement them in the care that they render. *[Organization Level]* [A]

Pharmacological Intervention

Terminal Objective 10:

Given information on pharmacology, the student will explain the components of a drug profile, as described in the course materials and as assessed by a minimum score of 75% in quizzes and written exams. *[Analyzing Level]*

Enabling Objectives 10:

Cognitive and Psychomotor

10.A: Given information in class and through reading, the student will explain the generic, trade, and chemical names for individual medications, as defined in course materials. [*Analyzing Level]* [C]

10.B: Given information in class and through reading, the student will explain the different drug classifications for individual medications, as defined in course materials. [*Analyzing Level]* [C]

10.C: Given information in class and through reading, the student will explain the different mechanisms of action that create effect from the medications in the AEMT formulary, as defined in course materials. [*Analyzing Level]* [C]

10.D: Given information in class and through reading, the student will explain the difference between an indication and contraindication, as defined in course materials. [*Analyzing Level]* [C]

10.E: Given information in class and through reading, the student will explain the pharmacokinetics of absorption, metabolism, elimination, and half-life, as defined in course materials. [*Analyzing Level]* [C]

10.F: Given information in class and through reading, the student will explain the different routes of administration for medications (IV Push, aerosolized, buccal, IM, intranasal, rectal, and SC) in the AEMT formulary, as defined in course materials. [*Analyzing Level]* [C]

10.G: Given information in class and through reading, the student will explain the difference between side effects and adverse effects of medication, as defined in course materials. [*Analyzing Level]* [C]

10.H: Given information in class and through reading, the student will explain how medications in the AEMT formulary are supplied, as defined in course materials. [*Analyzing Level]* [C]

10.I: Given information in class and through reading, the student will explain how to calculate dose and when to adjust dose based on patient history, as defined in course materials. [*Analyzing Level]* [C]

Affective

10.J: Given information about the drug profile components, the student will identify the importance of background and product knowledge in making appropriate decisions regarding pharmacological intervention for patients. *[Organization Level]* [A]

Terminal Objective 11:

Given information on pharmacology, the student will demonstrate the necessary mathematical skills in order to competently administer medications in the AEMT formulary, as described in the course materials and as assessed by a minimum score of 75% in quizzes and written exams. *[Applying Level]*

Enabling Objectives 11:

Cognitive and Psychomotor

11.A: Given information in class and through reading, the student will demonstrate the ability to work with fractions, percentages, and decimals, without critical error. [*Applying Level]* [C]

11.B: Given information in class and through reading, the student will demonstrate the ability to convert decimals to fractions and back, without critical error. [*Applying Level]* [C]

11.C: Given information in class and through reading, the student will demonstrate the ability to work number problems without the need for paper or calculator, without critical error. [*Applying Level]* [C]

11.D: Given information in class and through reading, the student will demonstrate the ability to add, subtract, multiply and divide without the assistance of a calculator, without critical error. [*Applying Level]* [C]

11.E: Given information in class and through reading, the student will demonstrate the ability to make appropriate mathematical estimates, without critical error. [*Applying Level]* [C]

11.F: Given information in class and through reading, the student will demonstrate the ability to convert pounds to kilograms and kilograms to pounds, without critical error. [*Applying Level]* [C]

11.G: Given information in class and through reading, the student will demonstrate the ability to cross multiply and divide, without critical error. [*Applying Level]* [C]

11.H: Given information in class and through reading, the student will demonstrate the ability to convert units of measure, without critical error. [*Applying Level]* [C]

11.I: Given information in class and through reading, the student will explain and use concentration percentages with medications, without critical error. [*Applying Level]* [C]

Affective

11.J: Given information about pharmacology related mathematics, the student will identify the importance of math proficiency in making appropriate pharmacological intervention for patients. *[Organization Level]* [A]

Terminal Objective 12:

Given information in class and in reading assignments, the student will explain the role, formulary specifics, and use of Aspirin, to a minimum level of 75% on written exams and without critical error in lab application as defined by course materials and check sheets. *[Analyzing Level]*

Enabling Objectives 12:

Cognitive and Psychomotor

12.A: Given information in class and through reading, the student will identify the classification of Aspirin, as defined in course materials. [*Knowing Level]* [C]

12.B: Given information in class and through reading, the student will identify the actions of Aspirin, as defined in course materials. [*Knowing Level]* [C]

12.C: Given information in class and through reading, the student will identify the dosages of Aspirin for adult patients, as defined in course materials. [*Knowing Level]* [C]

12.D: Given information in class and through reading, the student will identify the indications for administration of Aspirin, as defined in course materials. [*Knowing Level]* [C]

12.E: Given information in class and through reading, the student will identify the contraindications for administration of Aspirin, as defined in course materials. [*Knowing Level]* [C]

12.F: Given information in class and through reading, the student will identify the side effects of Aspirin, as defined in course materials. [*Knowing Level]* [C]

12.G: Given information in class and through reading, the student will identify the adverse reactions possible with Aspirin, as defined in course materials. [*Knowing Level]* [C]

12.H: Given information in class and through reading, the student will identify the different concentrations and packaging options for Aspirin as used by AEMTs in the field, as defined in course materials. [*Knowing Level]* [C]

12.I: Given information in class and through reading, the student will explain the use of Aspirin by AEMTs in the field, as defined in course materials. [*Analyzing Level]* [C]

12.J: Given lab simulations, the student will demonstrate the use of Aspirin in treating simulated patients, as defined in course materials and without critical error as defined by class check sheets. [*Applying Level]* [P]

12.K: Given information in class and through reading, the student will assess the effectiveness of Aspirin in a simulated patient, as defined in course materials and with a minimum of 75% on evaluations. [*Evaluating Level]* [C]

Affective

12.L: Given information about Aspirin, the student will identify the importance of proper use in order to facilitate improved patient outcomes. *[Organization Level]* [A]

Terminal Objective 13:

Given information in class and in reading assignments, the student will explain the role, formulary specifics, and use of Atropine, to a minimum level of 75% on written exams and without critical error in lab application as defined by course materials and check sheets. *[Analyzing Level]*

Enabling Objectives 13:

Cognitive and Psychomotor

13.A: Given information in class and through reading, the student will identify the classification of Atropine, as defined in course materials. [*Knowing Level]* [C]

13.B: Given information in class and through reading, the student will identify the actions of Atropine, as defined in course materials. [*Knowing Level]* [C]

13.C: Given information in class and through reading, the student will identify the dosages of Atropine for adult and pediatric patients, as defined in course materials. [*Knowing Level]* [C]

13.D: Given information in class and through reading, the student will identify the indications for administration of Atropine, as defined in course materials. [*Knowing Level]* [C]

13.E: Given information in class and through reading, the student will identify the contraindications for administration of Atropine, as defined in course materials. [*Knowing Level]* [C]

13.F: Given information in class and through reading, the student will identify the side effects of Atropine, as defined in course materials. [*Knowing Level]* [C]

13.G: Given information in class and through reading, the student will identify the adverse reactions possible with Atropine, as defined in course materials. [*Knowing Level]* [C]

13.H: Given information in class and through reading, the student will identify the different concentrations and packaging options for Atropine as used by AEMTs in the field, as defined in course materials. [*Knowing Level]* [C]

13.I: Given information in class and through reading, the student will explain the use of Atropine by AEMTs in the field, as defined in course materials. [*Analyzing Level]* [C]

13.J: Given lab simulations, the student will demonstrate the use of Atropine in treating simulated patients, as defined in course materials and without critical error as defined by class check sheets. [*Applying Level]* [P]

13.K: Given information in class and through reading, the student will assess the effectiveness of Atropine in a simulated patient, as defined in course materials and with a minimum of 75% on evaluations. [*Evaluating Level]* [C]

Affective

13.L: Given information about Atropine, the student will identify the importance of proper use in order to facilitate improved patient outcomes. *[Organization Level]* [A]

Terminal Objective 14:

Given information in class and in reading assignments, the student will explain the role, formulary specifics, and use of Beta 2 Bronchodilators, to a minimum level of 75% on written exams and without critical error in lab application as defined by course materials and check sheets. *[Analyzing Level]*

Enabling Objectives 14:

Cognitive and Psychomotor

14.A: Given information in class and through reading, the student will identify the classification of Beta 2 Bronchodilators, as defined in course materials. [*Knowing Level]* [C]

14.B: Given information in class and through reading, the student will identify the actions of Beta 2 Bronchodilators, as defined in course materials. [*Knowing Level]* [C]

14.C: Given information in class and through reading, the student will identify the dosages of Beta 2 Bronchodilators for adult and pediatric patients, as defined in course materials. [*Knowing Level]* [C]

14.D: Given information in class and through reading, the student will identify the indications for administration of Beta 2 Bronchodilators, as defined in course materials. [*Knowing Level]* [C]

14.E: Given information in class and through reading, the student will identify the contraindications for administration of Beta 2 Bronchodilators, as defined in course materials. [*Knowing Level]* [C]

14.F: Given information in class and through reading, the student will identify the side effects of Beta 2 Bronchodilators, as defined in course materials. [*Knowing Level]* [C]

14.G: Given information in class and through reading, the student will identify the adverse reactions possible with Beta 2 Bronchodilators, as defined in course materials. [*Knowing Level]* [C]

14.H: Given information in class and through reading, the student will identify the different concentrations and packaging options for Beta 2 Bronchodilators as used by AEMTs in the field, as defined in course materials. [*Knowing Level]* [C]

14.I: Given information in class and through reading, the student will explain the use of Beta 2 Bronchodilators by AEMTs in the field, as defined in course materials. [*Analyzing Level]* [C]

14.J: Given lab simulations, the student will demonstrate the use of Beta 2 Bronchodilators in treating simulated patients, as defined in course materials and without critical error as defined by class check sheets. [*Applying Level]* [P]

14.K: Given information in class and through reading, the student will assess the effectiveness of Beta 2 Bronchodilators in a simulated patient, as defined in course materials and with a minimum of 75% on evaluations. [*Evaluating Level]* [C]

Affective

14.L: Given information about Beta 2 Bronchodilators, the student will identify the importance of proper use in order to facilitate improved patient outcomes. *[Organization Level]* [A]

Terminal Objective 15:

Given information in class and in reading assignments, the student will explain the role, formulary specifics, and use of Dextrose, to a minimum level of 75% on written exams and without critical error in lab application as defined by course materials and check sheets. *[Analyzing Level]*

Enabling Objectives 15:

Cognitive and Psychomotor

15.A: Given information in class and through reading, the student will identify the classification of Dextrose, as defined in course materials. [*Knowing Level]* [C]

15.B: Given information in class and through reading, the student will identify the actions of Dextrose, as defined in course materials. [*Knowing Level]* [C]

15.C: Given information in class and through reading, the student will identify the dosages of Dextrose for adult and pediatric patients, as defined in course materials. [*Knowing Level]* [C]

15.D: Given information in class and through reading, the student will identify the indications for administration of Dextrose, as defined in course materials. [*Knowing Level]* [C]

15.E: Given information in class and through reading, the student will identify the contraindications for administration of Dextrose, as defined in course materials. [*Knowing Level]* [C]

15.F: Given information in class and through reading, the student will identify the side effects of Dextrose, as defined in course materials. [*Knowing Level]* [C]

15.G: Given information in class and through reading, the student will identify the adverse reactions possible with Dextrose, as defined in course materials. [*Knowing Level]* [C]

15.H: Given information in class and through reading, the student will identify the different concentrations and packaging options for Dextrose as used by AEMTs in the field, as defined in course materials. [*Knowing Level]* [C]

15.I: Given information in class and through reading, the student will explain the use of Dextrose by AEMTs in the field, as defined in course materials. [*Analyzing Level]* [C]

15.J: Given lab simulations, the student will demonstrate the use of Dextrose in treating simulated patients, as defined in course materials and without critical error as defined by class check sheets. [*Applying Level]* [P]

15.K: Given information in class and through reading, the student will assess the effectiveness of Dextrose in a simulated patient, as defined in course materials and with a minimum of 75% on evaluations. [*Evaluating Level]* [C]

Affective

15.L: Given information about Dextrose, the student will identify the importance of proper use in order to facilitate improved patient outcomes. *[Organization Level]* [A]

Terminal Objective 16:

Given information in class and in reading assignments, the student will explain the role, formulary specifics, and use of Epinephrine, to a minimum level of 75% on written exams and without critical error in lab application as defined by course materials and check sheets. *[Analyzing Level]*

Enabling Objectives 16:

Cognitive and Psychomotor

16.A: Given information in class and through reading, the student will identify the classification of Epinephrine, as defined in course materials. [*Knowing Level]* [C]

16.B: Given information in class and through reading, the student will identify the actions of Epinephrine, as defined in course materials. [*Knowing Level]* [C]

16.C: Given information in class and through reading, the student will identify the dosages of Epinephrine for adult and pediatric patients, as defined in course materials. [*Knowing Level]* [C]

16.D: Given information in class and through reading, the student will identify the indications for administration of Epinephrine, as defined in course materials and the AEMT scope of practice. [*Knowing Level]* [C]

16.E: Given information in class and through reading, the student will identify the contraindications for administration of Epinephrine, as defined in course materials. [*Knowing Level]* [C]

16.F: Given information in class and through reading, the student will identify the side effects of Epinephrine, as defined in course materials. [*Knowing Level]* [C]

16.G: Given information in class and through reading, the student will identify the adverse reactions possible with Epinephrine, as defined in course materials. [*Knowing Level]* [C]

16.H: Given information in class and through reading, the student will identify the different concentrations and packaging options for Epinephrine as used by AEMTs in the field, as defined in course materials. [*Knowing Level]* [C]

16.I: Given information in class and through reading, the student will explain the use of Epinephrine by AEMTs in the field, as defined in course materials and the AEMT scope of practice. [*Analyzing Level]* [C]

16.J: Given lab simulations, the student will demonstrate the use of Epinephrine in treating simulated patients, as defined in course materials and without critical error as defined by class check sheets. [*Applying Level]* [P]

16.K: Given information in class and through reading, the student will assess the effectiveness of Epinephrine in a simulated patient, as defined in course materials and with a minimum of 75% on evaluations. [*Evaluating Level]* [C]

Affective

16.L: Given information about Epinephrine, the student will identify the importance of proper use in order to facilitate improved patient outcomes. *[Organization Level]* [A]

Terminal Objective 17:

Given information in class and in reading assignments, the student will explain the role, formulary specifics, and use of Glucagon, to a minimum level of 75% on written exams and without critical error in lab application as defined by course materials and check sheets. *[Analyzing Level]*

Enabling Objectives 17:

Cognitive and Psychomotor

17.A: Given information in class and through reading, the student will identify the classification of Glucagon, as defined in course materials. [*Knowing Level]* [C]

17.B: Given information in class and through reading, the student will identify the actions of Glucagon, as defined in course materials. [*Knowing Level]* [C]

17.C: Given information in class and through reading, the student will identify the dosages of Glucagon for adult and pediatric patients, as defined in course materials. [*Knowing Level]* [C]

17.D: Given information in class and through reading, the student will identify the indications for administration of Glucagon, as defined in course materials. [*Knowing Level]* [C]

17.E: Given information in class and through reading, the student will identify the contraindications for administration of Glucagon, as defined in course materials. [*Knowing Level]* [C]

17.F: Given information in class and through reading, the student will identify the side effects of Glucagon, as defined in course materials. [*Knowing Level]* [C]

17.G: Given information in class and through reading, the student will identify the adverse reactions possible with Glucagon, as defined in course materials. [*Knowing Level]* [C]

17.H: Given information in class and through reading, the student will identify the different concentrations and packaging options for Glucagon as used by AEMTs in the field, as defined in course materials. [*Knowing Level]* [C]

17.I: Given information in class and through reading, the student will explain the use of Glucagon by AEMTs in the field, as defined in course materials. [*Analyzing Level]* [C]

17.J: Given lab simulations, the student will demonstrate the use of Glucagon in treating simulated patients, as defined in course materials and without critical error as defined by class check sheets. [*Applying Level]* [P]

17.K: Given information in class and through reading, the student will assess the effectiveness of Glucagon in a simulated patient, as defined in course materials and with a minimum of 75% on evaluations. [*Evaluating Level]* [C]

Affective

17.L: Given information about Glucagon, the student will identify the importance of proper use in order to facilitate improved patient outcomes. *[Organization Level]* [A]

Terminal Objective 18:

Given information in class and in reading assignments, the student will explain the role, formulary specifics, and use of Narcan, to a minimum level of 75% on written exams and without critical error in lab application as defined by course materials and check sheets. *[Analyzing Level]*

Enabling Objectives 18:

Cognitive and Psychomotor

18.A: Given information in class and through reading, the student will identify the classification of Narcan, as defined in course materials. [*Knowing Level]* [C]

18.B: Given information in class and through reading, the student will identify the actions of Narcan, as defined in course materials. [*Knowing Level]* [C]

18.C: Given information in class and through reading, the student will identify the dosages of Narcan for adult and pediatric patients, as defined in course materials. [*Knowing Level]* [C]

18.D: Given information in class and through reading, the student will identify the indications for administration of Narcan, as defined in course materials. [*Knowing Level]* [C]

18.E: Given information in class and through reading, the student will identify the contraindications for administration of Narcan, as defined in course materials. [*Knowing Level]* [C]

18.F: Given information in class and through reading, the student will identify the side effects of Narcan, as defined in course materials. [*Knowing Level]* [C]

18.G: Given information in class and through reading, the student will identify the adverse reactions possible with Narcan, as defined in course materials. [*Knowing Level]* [C]

18.H: Given information in class and through reading, the student will identify the different concentrations and packaging options for Narcan as used by AEMTs in the field, as defined in course materials. [*Knowing Level]* [C]

18.I: Given information in class and through reading, the student will explain the use of Narcan by AEMTs in the field, as defined in course materials. [*Analyzing Level]* [C]

18.J: Given lab simulations, the student will demonstrate the use of Narcan in treating simulated patients, as defined in course materials and without critical error as defined by class check sheets. [*Applying Level]* [P]

18.K: Given information in class and through reading, the student will assess the effectiveness of Narcan in a simulated patient, as defined in course materials and with a minimum of 75% on evaluations. [*Evaluating Level]* [C]

Affective

18.L: Given information about Narcan, the student will identify the importance of proper use in order to facilitate improved patient outcomes. *[Organization Level]* [A]

Terminal Objective 19:

Given information in class and in reading assignments, the student will explain the role, formulary specifics, and use of Nitrous Oxide, to a minimum level of 75% on written exams and without critical error in lab application as defined by course materials and check sheets. *[Analyzing Level]*

Enabling Objectives 19:

Cognitive and Psychomotor

19.A: Given information in class and through reading, the student will identify the classification of Nitrous Oxide, as defined in course materials. [*Knowing Level]* [C]

19.B: Given information in class and through reading, the student will identify the actions of Nitrous Oxide, as defined in course materials. [*Knowing Level]* [C]

19.C: Given information in class and through reading, the student will identify the dosages of Nitrous Oxide for adult and pediatric patients, as defined in course materials. [*Knowing Level]* [C]

19.D: Given information in class and through reading, the student will identify the indications for administration of Nitrous Oxide, as defined in course materials. [*Knowing Level]* [C]

19.E: Given information in class and through reading, the student will identify the contraindications for administration of Nitrous Oxide, as defined in course materials. [*Knowing Level]* [C]

19.F: Given information in class and through reading, the student will identify the side effects of Nitrous Oxide, as defined in course materials. [*Knowing Level]* [C]

19.G: Given information in class and through reading, the student will identify the adverse reactions possible with Nitrous Oxide, as defined in course materials. [*Knowing Level]* [C]

19.H: Given information in class and through reading, the student will identify the different concentrations and packaging options for Nitrous Oxide as used by AEMTs in the field, as defined in course materials. [*Knowing Level]* [C]

19.I: Given information in class and through reading, the student will explain the use of Nitrous Oxide by AEMTs in the field, as defined in course materials. [*Analyzing Level]* [C]

19.J: Given lab simulations, the student will demonstrate the use of Nitrous Oxide in treating simulated patients, as defined in course materials and without critical error as defined by class check sheets. [*Applying Level]* [P] **OPTIONAL**

19.K: Given information in class and through reading, the student will assess the effectiveness of Nitrous Oxide in a simulated patient, as defined in course materials and with a minimum of 75% on evaluations. [*Evaluating Level]* [C]

Affective

19.L: Given information about Nitrous Oxide, the student will identify the importance of proper use in order to facilitate improved patient outcomes. *[Organization Level]* [A]

Terminal Objective 20:

Given information in class and in reading assignments, the student will explain the role, formulary specifics, and use of Pralidoxime Chloride (2-PAM), to a minimum level of 75% on written exams and without critical error in lab application as defined by course materials and check sheets. *[Analyzing Level]*

Enabling Objectives 20:

Cognitive and Psychomotor

20.A: Given information in class and through reading, the student will identify the classification of Pralidoxime Chloride (2-PAM), as defined in course materials. [*Knowing Level]* [C]

20.B: Given information in class and through reading, the student will identify the actions of Pralidoxime Chloride (2-PAM), as defined in course materials. [*Knowing Level]* [C]

20.C: Given information in class and through reading, the student will identify the dosages of Pralidoxime Chloride (2-PAM) for adult and pediatric patients, as defined in course materials. [*Knowing Level]* [C]

20.D: Given information in class and through reading, the student will identify the indications for administration of Pralidoxime Chloride (2-PAM), as defined in course materials. [*Knowing Level]* [C]

20.E: Given information in class and through reading, the student will identify the contraindications for administration of Pralidoxime Chloride (2-PAM), as defined in course materials. [*Knowing Level]* [C]

20.F: Given information in class and through reading, the student will identify the side effects of Pralidoxime Chloride (2-PAM), as defined in course materials. [*Knowing Level]* [C]

20.G: Given information in class and through reading, the student will identify the adverse reactions possible with Pralidoxime Chloride (2-PAM), as defined in course materials. [*Knowing Level]* [C]

20.H: Given information in class and through reading, the student will identify the different concentrations and packaging options for Pralidoxime Chloride (2-PAM) as used by AEMTs in the field, as defined in course materials. [*Knowing Level]* [C]

20.I: Given information in class and through reading, the student will explain the use of Pralidoxime Chloride (2-PAM) by AEMTs in the field, as defined in course materials. [*Analyzing Level]* [C]

20.J: Given lab simulations, the student will demonstrate the use of Pralidoxime Chloride (2-PAM) in treating simulated patients, as defined in course materials and without critical error as defined by class check sheets. [*Applying Level]* [P]

20.K: Given information in class and through reading, the student will assess the effectiveness of Pralidoxime Chloride (2-PAM) in a simulated patient, as defined in course materials and with a minimum of 75% on evaluations. [*Evaluating Level]* [C]

Affective

20.L: Given information about Pralidoxime Chloride (2-PAM), the student will identify the importance of proper use in order to facilitate improved patient outcomes. *[Organization Level]* [A]

Terminal Objective 21:

Given in class scenarios and lab classes, the student will demonstrate the ability to administer oral analgesic medications (OTC) as directed by standing orders or direct physician contact, without critical error as defined by course materials and check sheets. *[Demonstrating Level]*

Enabling Objectives 21:

Cognitive and Psychomotor

21.A: Given information in class and through reading, the student will explain the indications, contraindications, and process for administering oral analgesic medications (OTC), as defined in course materials. [*Comprehending Level]* [C]

21.B: Given a lab setting, the student will demonstrate the process for administering oral analgesic medications (OTC), without critical error as defined by course materials and check sheets. [*Demonstrating Level]* [P]

Affective

21.L: Given information about oral analgesics (OTC), the student will identify the importance of proper use under physician guidance and protocols in order to facilitate improved patient outcomes. *[Organization Level]* [A]

Terminal Objective 22:

Given information on pharmacology, the student will integrate the use of a Mark 1® or Duodote® kit into the care of a simulated nerve agent chemical exposure patient, without critical error as defined by course materials and check sheets. *[Evaluating Level]*

Enabling Objectives 22:

Cognitive and Psychomotor

22.A: Given information in class and through reading, the student will identify the signs and symptoms of a nerve agent exposure, as defined in course materials using the DUMBELS acronym. [*Knowing Level]* [C]

22.B: Given information in class and through reading, the student will explain the actions of nerve agents in the human body, as defined in course materials. [*Knowing Level]* [C]

22.C: Given information in class and through reading, the student will identify the indications for use of the Mark 1® or Duodote® kit, as defined in course materials. [*Knowing Level]* [C]

22.D: Given information in class and through reading, the student will demonstrate the ability to operate a Mark 1® or Duodote® kit, as defined in the course check sheet. [*Applying Level]* [P]

22.E: Given class practice sessions, the student will demonstrate the ability to assess a chemical nerve agent exposure patient for improvement following administration of a Mark 1® or Duodote® kit, as defined in course materials. [*Evaluating Level]* [P]

22.F: Given class practice sessions, the student will demonstrate the ability to appropriately dispose of the Mark 1® or Duodote® injector kit following administration, as defined in the course check sheet. [*Applying Level]* [P]

22.G: Given information in class and through reading, the student will specify those situations in which a repeat administration of a Mark 1® or Duodote® kit is indicated, as defined in course materials. [*Evaluating Level]* [P]

Affective

22.H: Given information about Mark 1® or Duodote® kits, the student will identify the importance of recognition and proper use in order to facilitate the survival of nerve agent exposure patients. *[Organization Level]* [A]

Terminal Objective 23:

Given information on pharmacology, the student will integrate the use of an Epinephrine Auto Injector® kit into the care of a simulated anaphylaxis patient, without critical error as defined by course materials and check sheets. *[Evaluating Level]*

Enabling Objectives 23:

Cognitive and Psychomotor

23.A: Given information in class and through reading, the student will identify the signs and symptoms of anaphylaxis, as defined in course materials. [*Knowing Level]* [C]

23.B: Given information in class and through reading, the student will explain the pathophysiology of anaphylaxis and how it is different from allergic reaction in the human body, as defined in course materials. [*Analyzing Level]* [C]

23.C: Given information in class and through reading, the student will identify the indications for use of the Epinephrine Auto Injector® kit, as defined in course materials. [*Knowing Level]* [C]

23.D: Given information in class and through reading, the student will demonstrate the ability to operate an Epinephrine Auto Injector® kit, as defined in the course check sheet. [*Applying Level]* [P]

23.E: Given class practice sessions, the student will demonstrate the ability to assess an anaphylaxis patient for improvement following administration of an Epinephrine Auto Injector® kit, as defined in course materials. [*Evaluating Level]* [P]

23.F: Given class practice sessions, the student will demonstrate the ability to appropriately dispose of the Epinephrine Auto Injector® kit following administration, as defined in the course check sheet. [*Applying Level]* [P]

23.G: Given information in class and through reading, the student will specify those situations in which a repeat administration of an Epinephrine Auto Injector® kit is indicated, as defined in course materials. [*Evaluating Level]* [P]

Affective

23.H: Given information about Epinephrine Auto Injector® kit, the student will identify the importance of recognition and proper use in order to facilitate the survival of anaphylactic patients. *[Organization Level]* [A]

Terminal Objective 24:

Given information on pharmacology, the student will integrate the use of a nebulizer with a Beta 2 Bronchodilator into the care of a simulated respiratory distress patient, without critical error as defined by course materials and check sheets. *[Evaluating Level]*

Enabling Objectives 24:

Cognitive and Psychomotor

24.A: Given information in class and through reading, the student will identify the signs and symptoms of respiratory distress with bronchospasm, as defined in course materials. [*Knowing Level]* [C]

24.B: Given information in class and through reading, the student will demonstrate the ability to auscultate and identify bronchospasm, as defined in course materials. [*Applying Level]* [P]

24.C: Given information in class and through reading, the student will explain the pathophysiology of bronchospasm in obstructive pulmonary disease in the human body, as defined in course materials. [*Analyzing Level]* [C]

24.D: Given information in class and through reading, the student will identify the indications for use of the nebulizer with a beta 2 bronchodilator, as defined in course materials. [*Knowing Level]* [C]

24.E: Given information in class and through reading, the student will demonstrate the ability to operate a nebulizer with a beta 2 bronchodilator, as defined in the course check sheet. [*Applying Level]* [P]

24.F: Given class practice sessions, the student will demonstrate the ability to assess a respiratory distress patient for improvement following administration of a nebulizer with a beta 2 bronchodilator, as defined in course materials. [*Evaluating Level]* [P]

24.G: Given class practice sessions, the student will demonstrate the ability to appropriately dispose of the nebulizer following administration, as defined in the course check sheet. [*Applying Level]* [P]

24.G: Given information in class and through reading, the student will specify those situations in which a repeat administration of a Beta 2 bronchodilator is indicated, as defined in course materials. [*Evaluating Level]* [P]

Affective

24.H: Given information about the use of nebulized beta 2 bronchodilators, the student will identify the importance of recognition and proper use in order to facilitate the care of patients with restrictive airway disease processes. *[Organization Level]* [A]

Terminal Objective 25:

Given in class scenarios and lab classes, the student will demonstrate the ability to administer approved over the counter (OTC) medications as directed by standing orders or direct physician contact, without critical error as defined by course materials and check sheets. *[Demonstrating Level]*

Enabling Objectives 25:

Cognitive and Psychomotor

25.A: Given information in class and through reading, the student will explain the indications, contraindications, and process for administering those OTC medications specified by local physician oversight for the course, as defined in course materials. [*Comprehending Level]* [C]

25.B: Given a lab setting, the student will demonstrate the process for administering locally approved OTC medications, without critical error as defined by course materials and check sheets. [*Demonstrating Level]* [P]

Affective

25.C: Given information about locally approved OTC medications, the student will identify the importance of proper use under physician guidance and protocols in order to facilitate improved patient outcomes. *[Organization Level]* [A]

Terminal Objective 26:

Given course information regarding medication administration, the student will specify and demonstrate appropriate medication administration for the medications included in the AEMT scope of practice, without error as defined in course critical criteria and check sheets. *[Evaluating Level]*

Enabling Objectives 26:

Cognitive and Psychomotor

26.A: Given information in class and through reading, the student will explain the six rights of medication administration, without error. [*Analyzing Level]* [C]

26.B: Given a lab setting, the student will demonstrate the ability to estimate patient weight, as assessed by accuracy within 15% of actual body weight. [*Demonstrating Level]* [P]

26.C: Given a lab setting, the student will demonstrate appropriate BSI procedures for medication administration, without critical error as defined by course check sheets. [*Demonstrating Level]* [P]

26.D: Given a lab setting, the student will explain and demonstrate the ability to use sterile technique and procedure when preparing medications for delivery, without critical error as defined by course check sheets. [*Analyzing Level]* [P]

26.E: Given course information and reading material, the student will explain the different types of medication orders, and determine how they apply to the AEMT. [*Analyzing Level]* [C]

26.F: Given a lab setting, the student will demonstrate the procedure for verifying medication orders, as defined in course check sheets. [*Demonstrating Level]* [P]

26.G: Given course information, the student will develop a workflow process that they can use to reduce and eliminate medication errors, as deemed appropriate by course materials, the instructor, and demonstration of practice in lab sessions. [*Creating Level]* [C/P]

26.H: Given a lab setting, the student will explain and demonstrate the process of intravenous medication administration, without critical error and as defined in course materials. [*Analyzing Level]* [C/P]

26.I: Given a lab setting, the student will explain and demonstrate the process of aerosolized medication administration, without critical error and as defined in course materials. [*Analyzing Level]* [C/P]

26.J: Given a lab setting, the student will explain and demonstrate the process of buccal medication administration, without critical error and as defined in course materials. [*Analyzing Level]* [C/P]

26.K: Given a lab setting, the student will explain and demonstrate the process of intramuscular medication administration, without critical error and as defined in course materials. [*Analyzing Level]* [C/P]

26.L: Given a lab setting, the student will explain and demonstrate the process of intranasal medication administration, without critical error and as defined in course materials. [*Analyzing Level]* [C/P]

26.M: Given a lab setting, the student will explain and demonstrate the process of rectal medication administration, without critical error and as defined in course materials. [*Analyzing Level]* [C/P]

26.N: Given a lab setting, the student will explain and demonstrate the process of subcutaneous medication administration, without critical error and as defined in course materials. [*Analyzing Level]* [C/P]

26.O: Given a lab setting, the student will explain and demonstrate the process of oral medication administration, without critical error and as defined in course materials. [*Analyzing Level]* [C/P]

26.P: Given a lab setting, the student will explain and demonstrate the process of post medication administration patient assessment, without critical error and as defined in course materials. [*Analyzing Level]* [C/P]

Affective

26.Q: Given information about medication administration, the student will identify the importance of critical thinking combined with proper technique in facilitating good patient outcomes. *[Organization Level]* [A]

Terminal Objective 27:

Given course information regarding oral analgesics, the student will specify and demonstrate appropriate administration of oral analgesics as directed by physicians, without error as defined in course critical criteria and check sheets. *[Evaluating Level]*

Enabling Objectives 27:

27.A: Given information about the different oral analgesic medications on the market (non-prescription), the student will identify the appropriate and inappropriate orders, without critical error as defined in the course materials and check sheets. *[Analyzing Level]* [C]

Affective

27.B: Given information about the use of oral analgesic medications by AEMT personnel, the student will identify the importance of physician direction, critical thinking and proper technique in facilitating good patient outcomes and adherence to their scope of practice. *[Organization Level]* [A]

Medical Care

Terminal Objective 28:

Given course information regarding electrocardiography (ECG), the student will demonstrate the ability to acquire and interpret 3 or 4 lead ECGs, without critical error as defined in course materials and check sheets. *[Analyzing Level]*

Enabling Objectives 28:

Cognitive and Psychomotor

28.A: Given information in class and through reading, the student will explain the electrical properties and function of the heart and its conduction system, to a level of 75% or greater on written assessments. [*Analyzing Level]* [C]

28.B: Given information in class and through reading, the student will explain the cardiac cycle, to a level of 75% or greater on written assessments. [*Analyzing Level]* [C]

28.C: Given information in class and through reading, the student will explain the coronary, pulmonary, and peripheral vasculature, to a level of 75% or greater on written assessments. [*Analyzing Level]* [C]

28.D: Given information in class and through reading, the student will explain acute coronary syndrome, to a level of 75% or greater on written assessments. [*Analyzing Level]* [C]

28.E: Given information in class and through reading, the student will explain acute myocardial infarction, to a level of 75% or greater on written assessments. [*Analyzing Level]* [C]

28.F: Given information in class and through reading, the student will explain the basic components and concepts of ECG interpretation, to a level of 75% or greater on written assessments. [*Analyzing Level]* [C]

28.G: Given information in class and through reading, the student will explain the individual components of the ECG complex, to a level of 80% or greater on written assessments and practical lab sessions. [*Analyzing Level]* [C]

28.H: Given information in class and through reading, the student will explain the ECG graph paper in terms of time and millimeters, without error. [*Analyzing Level]* [C]

28.I: Given information in class and through reading, the student will demonstrate proper use of calipers, rulers, and straight edges in assessing ECGs, without critical error as defined in course materials. [*Demonstrating Level]* [P]

28.J: Given information in class and in lab practice, the student will demonstrate the ability to determine electrical rate and explain its relationship to actual pulse rate, without critical error as assessed by course information and check sheets. [*Demonstrating Level]* [P]

28.K: Given information in class and in lab practice, the student will demonstrate the ability to identify electrical artifact and explain its relationship to the actual ECG rhythm, without critical error as assessed by course information and check sheets. [*Demonstrating Level]* [P]

28.L: Given information in class and with lab practice, the student will explain the major concepts of interpreting a cardiac rhythm, without error. [*Analyzing Level]* [C]

28.M: Given information in class and with lab practice, the student will identify the ECG rhythms below, to a level of 75% minimum proficiency. [*Analyzing Level]* [C]

- Normal Sinus Rhythm (Regular Sinus Rhythm) versus non-sinus in origin rhythm
- Sinus Bradycardia
- Sinus Tachycardia
- Ventricular Tachycardia
- Ventricular Fibrillation
- Pulsless Electrical Activity
- Asystole

28.N: Given information in class and with lab practice, the student will explain and demonstrate the ability to apply electrical intervention within the scope of practice of an AEMT, as outlined in course materials and check sheets and to a level of 75% minimum competency and without critical error. [*Analyzing Level]* [C/P]

- Ventricular Fibrillation
- Ventricular Tachycardia

Affective

28.O: Given information about ECG monitoring and electrical intervention, the AEMT will identify the importance critical thinking and proper technique in facilitating good patient outcomes and adherence to their scope of practice. *[Organization Level]* [A]

Terminal Objective 29:

Given course information regarding ECG monitor/defibrillators, the student will demonstrate the ability to acquire and interpret 3 or 4 lead ECGs and acquire 12 lead ECGs, without critical error as defined in course materials and check sheets. *[Analyzing Level]*

Enabling Objectives 29:

Cognitive and Psychomotor

29.A: Given information in class and through reading, the student will demonstrate and explain the ECG patch placement for 3/4 lead acquisition, as defined by check sheet and without critical error. [*Analyzing Level]* [P]

29.B: Given information in class and through reading, the student will demonstrate and explain the ECG patch placement for 12 lead acquisition, as defined by check sheet and without critical error. [*Analyzing Level]* [P]

29.C: Given ECG examples from their monitoring practice, the student will explain the ECG findings to a 75% minimum level of proficiency. [*Analyzing Level]* [P]

29.D: Given information in class and lab practice, the student will demonstrate the ability to troubleshoot problems with the ECG monitor and defibrillator, as defined by check sheet and without critical error. [*Analyzing Level]* [P]

29.E: Given information in class and lab practice, the student will demonstrate and explain safety issues relating to the use of monitor/defibrillators in a field setting, as defined by check sheet and without critical error. [*Analyzing Level]* [P]

Affective

29.F: Given information about ECG monitoring and electrical intervention, the AEMT will identify the importance critical thinking and proper technique in facilitating good patient outcomes and adherence to their scope of practice. *[Organization Level]* [A]

Terminal Objective 30:

Given course information regarding arterial lines, the student will explain the process of monitoring arterial lines during the transport of critically ill or injured patients, to a minimum level of 75% as defined in course materials and without critical error on check sheets. *[Analyzing Level]*

Enabling Objectives 30:

Cognitive and Psychomotor

30.A: Given information in class and through reading, the student will explain the basic premise of arterial monitoring by clinical personnel, to a minimum level of 75% as defined in course materials and check sheets. *[Analyzing Level]* [C]

30.B: Given information in class and lab scenarios, the student will demonstrate the process of assessing the arterial line, as defined by check sheet and without critical error. *[Analyzing Level]* [P]

30.C: Given information in class and lab scenarios, the student will demonstrate the ability to identify arterial line problems and react appropriately, as defined by check sheet and without critical error. *[Analyzing Level]* [C]

Affective

30.D: Given information about arterial line monitoring, the AEMT will identify the importance critical thinking and proper technique in facilitating good patient outcomes and adherence to their scope of practice. *[Organization Level]* [A]

Terminal Objective 31:

Given course information regarding urinary catheterization, the student will explain the process of monitoring urinary catheters during the transport of ill or injured patients, to a minimum level of 75% as defined in course materials and without critical error on check sheets. *[Analyzing Level]*

Enabling Objectives 31:

Cognitive and Psychomotor

31.A: Given information in class and through reading, the student will explain the basic premise of urinary catheterization and monitoring by clinical personnel, to a minimum level of 75% as defined in course materials and check sheets. *[Analyzing Level]* [C]

31.B: Given information in class and lab scenarios, the student will demonstrate the process of assessing the urinary catheter, as defined by check sheet and without critical error. *[Analyzing Level]* [P]

31.C: Given information in class and lab scenarios, the student will demonstrate the ability to identify urinary catheter problems and react appropriately, as defined by check sheet and without critical error. *[Analyzing Level]* [C]

Affective

31.D: Given information about urinary catheterization and monitoring, the AEMT will identify the importance critical thinking and proper technique in facilitating good patient outcomes and adherence to their scope of practice. *[Organization Level]* [A]

Terminal Objective 32:

Given course information regarding arterial lines, the student will demonstrate and explain the process of monitoring a capped arterial line, to a minimum level of 75% as defined in course materials and without critical error on check sheets. *[Analyzing Level]*

Enabling Objectives 32:

Cognitive and Psychomotor

32.A: Given information in class and through reading, the student will explain the use of a saline lock in the EMS setting, to a minimum level of 75% as defined in course materials and check sheets. *[Analyzing Level]* [C]

32.B: Given information in class and lab scenarios, the student will specify those patients who are candidates for a saline lock, as defined in course materials to a minimum of 75% proficiency. *[Analyzing Level]* [C]

32.C: Given lab opportunities, the student will demonstrate the ability to prepare and insert a saline lock, as defined by check sheet and without critical error. *[Analyzing Level]* [C]

Affective

32.D: Given information about saline locks, the AEMT will identify the importance critical thinking and proper technique in facilitating good patient outcomes and adherence to their scope of practice. *[Organization Level]* [A]

Terminal Objective 33:

Given course information regarding indwelling catheters, the student will demonstrate and explain the process of accessing indwelling catheters for the purposes of administering fluid or medications in emergent situations, to a minimum level of 75% as defined in course materials and without critical error on check sheets. *[Analyzing Level]*

Enabling Objectives 33:

Cognitive and Psychomotor

33.A: Given information in class and through reading, the student will explain those situations where it is deemed appropriate to access an indwelling catheter for the purpose of administering fluid or medication, to a minimum level of 75% as defined in course materials and check sheets. *[Analyzing Level]* [C]

33.B: Given information in class and lab scenarios, the student will explain the different types of indwelling catheters and how they can be accessed, as defined in course materials to a minimum of 75% proficiency. *[Analyzing Level]* [C/P]

33.C: Given lab opportunities, the student will demonstrate the ability to access an indwelling catheter to administer fluid or medication, as defined by check sheet and without critical error. *[Analyzing Level]* [P]

33.D: Given lab opportunities, the student will demonstrate the ability to assess indwelling catheter patency before, during, and after the administration of fluid or medication, as defined by check sheet and without critical error. *[Analyzing Level]* [P]

Affective

33.E: Given information about indwelling catheters, the AEMT will identify the importance critical thinking and proper technique when accessing these to facilitate good patient outcomes and adherence to their scope of practice. *[Organization Level]* [A]

Terminal Objective 34:

Given course information regarding intraosseous access, the student will demonstrate and explain the process of initiating and using an intraosseous device to obtain vascular access in adult and pediatric patients, to a minimum level of 75% as defined in course materials and without critical error on check sheets. *[Analyzing Level]*

Enabling Objectives 34:

Cognitive and Psychomotor

34.A: Given information in class and through reading, the student will explain the indications, contraindications, site selection, process, and adverse effects of intraosseous access for the purpose of administering fluid or medication, to a minimum level of 75% as defined in course materials and check sheets. *[Analyzing Level]* [C]

34.B: Given information in class and lab scenarios, the student will explain the different types of intraosseous devices and catheters, as defined in course materials to a minimum of 75% proficiency. *[Analyzing Level]* [C/P]

34.C: Given lab opportunities, the student will demonstrate the ability to initiate an intraosseous line to administer fluid or medication, as defined by check sheet and without critical error. *[Analyzing Level]* [P]

34.D: Given lab opportunities, the student will demonstrate the ability to assess intraosseous line patency before, during, and after the administration of fluid or medication, as defined by check sheet and without critical error. *[Analyzing Level]* [P]

Affective

34.E: Given information about the initiation of intraosseous lines, the AEMT will identify the importance critical thinking and proper technique when initiating these to facilitate good patient outcomes and adherence to their scope of practice. *[Organization Level]* [A]

Instructional Methods Plan

The instruction for this program will occur using a variety of techniques.

- Pre-class reading
- Interactive Lecture
- Dialogue
- Case Study
- Role Play
- Individual and Group Assignments
- Written Assignments
- Skills labs
- Simulations

Evaluation Plan

The intent of this class is to educate existing Kansas certified Emergency Medical Technician - Intermediates in the tasks and knowledge of the new scope of practice for Advanced Emergency Medical Technician. The expectation of this course is that persons completing the course will possess the knowledge and skills necessary to function in the capacity as a Kansas certified Advanced Emergency Medical Technician.

The evaluation of this material will not be facilitated by an outside agency unless arrangements are made for this by the course coordinator/instructor. It is up to the individual coordinator/instructor to determine locally what resources are needed in order to ensure a fair and meaningful evaluation of the cognitive, psychomotor, and affective domain information contained in this program.

It is the intent of this course to produce measurable results in the performance of students in the cognitive, psychomotor, and affective domains. Therefore, Kirkpatrick level 1 through 4 evaluation is indicated.

Kirkpatrick Level 1 - Reaction

Student reaction forms are to be collected at the conclusion of each module in the program. These will evaluate student reaction to course content, instruction, methods, and materials. An average score of 4.0 or greater is the target point.

Comments regarding the module should be processed by the coordinator/instructor and disseminated to the appropriate persons to ensure a process of continual improvement.

Kirkpatrick Level 2 - Learning

Post course evaluation will have two components that must be successfully completed in order for a student to successfully complete the bridge program.

1. Pass the comprehensive written exam with a score of 75% or greater.
2. Completion of the student lab manual is required for successful completion of the course. The lab manual requires multiple competency shows for each skill set.

Kirkpatrick Level 3 - Transfer

Transfer of material into the field will be evaluated through a survey of service-based instructors and course coordinators to determine if skills taught in the course are being used appropriately in the field.

Kirkpatrick Level 4 - Results

The desired result of the course is to successfully bridge those interested Emergency Medical Technician - Intermediate personnel to the new Advanced Emergency Medical Technician classification.

To evaluate this intended result, the Kansas Board of EMS will monitor the number of certified Emergency Medical Technician - Intermediate personnel making the transition from existing to new certification and scope of practice. The target result is that active, engaged Emergency Medical Technician - Intermediates are able to successfully complete the bridge program.

