

- II. **Program Learning Outcomes:** A description of what you intend for students to know (cognitive), think/feel (affective), or do (psychomotor), when they have completed your degree program. A suggested manageable number of outcomes should be in the range of five to ten. Describe Program Learning Outcomes review activities*.

An entry-level EMT-Paramedic who has successfully completed the Paramedic Certification Program at Sinclair Community College will be able to:

| Learning Outcomes | Related Courses |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| 1. Demonstrate the ability to comprehend, apply, and evaluate information relevant to the job description of an entry-level Emergency Medical Technician-Paramedic. | EMS 135, 136, 137, 138, 139 |
| 2. Demonstrate the ability to proficiently perform all procedures relevant to the job description of an entry-level Emergency Medical Technician-Paramedic. | EMS 135, 136, 137, 138, 139 |
| 3. Demonstrate personal behaviors and attitudes consistent with and appropriate to the delivery of prehospital emergency medical care. | EMS 135, 136, 137, 138, 139 |

- III. **Assessment Method(s):** A measurable indicator of success in attaining the stated learning outcome(s). The methodology should be both reliable and valid. Please describe in detail.

- a. **Formative Assessment Methods(s) and Description:** a measurable indicator of student in-progress success in attaining the stated learning outcome(s).

Knowledge and skills are evaluated through written and practical examinations in every EMS course. Written pass rates must be 78% or higher and the mastery of every skill must be demonstrated. A total of 340 hours of clinical are required throughout the EMS program. A portion of these clinical hours is scheduled within every course throughout the curriculum. Thus, students are involved in a clinical experience every quarter. Every EMS class has a classroom, laboratory, and clinical (hospital and ambulance) component.

Within every EMS course there is a knowledge, skill, and behavioral component. Ongoing student progress is monitored by the faculty by reviewing the clinical record book which identifies satisfactory and unsatisfactory behaviors and skills. If problems are observed by the faculty advisor an advisory/counseling session is scheduled with the student. Occasionally remediation is required or a student may have to repeat a class.

Students must achieve a 78% or higher average each quarter on written examinations. Topic oriented tests constitute 45%, quarterly final exams constitutes 40% and reading/written projects constitute the remainder.

Students must demonstrate integration of knowledge and skills in simulated patient scenarios during the laboratory each quarter.

Students must demonstrate integration of knowledge and skills during clinical practicums in the hospital and field settings.

Demonstrated proficiency of mandated practical skills is required in the laboratory prior to performance in the clinical setting each quarter. Proficiency in a skill is defined as the correct performance of all critical steps in the proper sequence within a prescribed time frame.

Minimum skill performance requirements are established for successful completion of clinical practicums.

Demonstrated professional behavior is required during classroom and laboratory sessions. Attendance, attitude, and completion of assignments demonstrate professional behavior in this setting.

Demonstrated professional behavior is required during hospital/field clinical practicums. Professional behavior in the clinical setting is demonstrated by attitude, appearance, interaction with other health care workers and patients, and completion of assignments.

- b. Summative Assessment Method(s) and Description: a measurable indicator of end-of-program success in attaining the stated program learning outcome(s).

EMS 139, Paramedic Theory and Practice V, a seven-credit-hour course, is required of every EMS student. A comprehensive examination is required and students must achieve a 70% or higher level of mastery. This exam is similar to a mock certification level examination. A comprehensive practical exam is also administered.

Students are evaluated on the ability to be a team leader and problem solve. Papers required involve documents for patient management and ambulance run report forms. Research is required to develop packets with EKGs and medications.

Simulations are a key component of EMS 139 as well as in all other courses. Students must demonstrate proficiency and integration of mandated skills in simulated patient scenarios in EMS 136, 137, 138, and 139.

Graduate and employer surveys are administered once a year. Graduate surveys identify perceived self-strengths and weaknesses. Employer surveys identify perceived entry-level strengths and weaknesses.

The EMS program receives feedback about the results from the National Registry Examination. This includes results on a written and practical examination.

The faculty solicits informal dialogue with current students and feedback from Advisory Committee Members.

“Graduates” of the Paramedic Certification Program must achieve an overall passing grade on the written certification examination with acceptable subset scores. Graduates of the Paramedic Certification Program must successfully complete the skills portion of the certification examination.

Students must demonstrate proficiency and integration of mandated skills during the comprehensive practical examination at the completion of EMS 139.

IV. Results: A description of the actual results of overall student performance gathered from the summative assessment(s). (see III.b.)

Attrition in EMS is approximately 35-45%. Faculty believe most attrition occurs as a result of inadequate academic preparation and occasionally as the result of inappropriate career choice.

| | # Students Entering EMS 101 / 135 | # Students Completing EMS 104 / 139 In Progress | # Students passing certification examination (%) In Progress |
|--------------|-----------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------|
| Class of '01 | 132 | | |
| Class of '00 | 121 | 71 | 63 (89.5%)* |
| Class of '99 | 96 | 56 | 50 (90.6%) * |
| Class of '98 | 130 | 69 | 64 (94.1%) |
| Class of '97 | 136 | 94 | 87 (92.6%) |
| Class of '96 | 89 | 52 | 48 (92.3%) |
| Class of '95 | 103 | 62 | 56 (90.3%) |
| Class of '94 | 93 | 53 | 51 (96.2%) |
| Class of '93 | 95 | 55 | 54 (98.1%) |
| Class of '92 | 83 | 58 | 55 (94.8%) |

- Students who have chosen to not sit for certification are removed from the group, yielding the above results.
 - The lowest rating by graduates in technical/cognitive knowledge are pediatric emergencies, behavioral emergencies, and hazardous materials.
 - Due to revisions in the employer survey, no new survey information is available. Employers identified the strengths of Sinclair paramedics as good technical skills, confidence, and motivation. Employers identified weaknesses of Sinclair paramedics as communication and documentation.

V. Analysis/Actions: From analysis of your summative assessment results, do you plan to or have you made any adjustments to your program learning outcomes, methodologies, curriculum, etc.? If yes, describe. If no, explain.

More communications skills have been included to increase verbal and written communication proficiency.

The curriculum has been strengthened with additional emphasis in obstetrics, pediatric emergencies, HazMat, and behavioral emergencies.

Students are advised when deficiencies are noted. Follow-up is provided.

VI. **General Education:** A description of where and how within the major the three primary general education outcomes* (communication, thinking, values/citizenship/community) are assessed.

- a. Where within the major do you assess written communication? Describe the assessment method(s) used. Describe assessment results if available.

Written skills are reinforced through team projects and simulations that emphasize interactions with patients and field workers. Written communication is reinforced within every EMS class through the critique of patient assessment forms and ambulance run reports.

Programmed learning packets have been introduced to EMS 135, 136, 137, 138, and 139. The goal is to encourage mastery of writing skills and teamwork skills. These packets require the student to research various subjects and then deliver their findings. Findings may be delivered through take home quizzes, oral presentations, or written reports.

- * Note: The oral communication checklist and the written communication checklist developed by the General Education Committee were adopted for college-wide use during the 1997-98 academic year by Academic Council. Thinking Guidelines developed by the General Education Committee were piloted by faculty during the 1998-99 academic year; a student honor code will be piloted Spring 2001.

A differential diagnosis paper is required in EMS 139 and options are available for students to complete case studies.

- b. Where within the major do you assess oral communication? Describe the assessment method(s) used. Describe assessment results if available.

Oral communication skills are reinforced through team projects and simulations that emphasize interactions with patients, field workers, and verbal communication skills through use of the "two-way radio".

- c. Where within the major do you assess thinking? Thinking might include inventing new problems, seeing relationships and/or implications, respecting other approaches, demonstrating clarity and/or integrity, or recognizing assumptions. Describe the assessment method(s) used. Describe assessment results if available.

Thinking skills are reinforced through fact-finding, history, diagnosis, and developing a treatment plan, and assessment and management of patient needs.

- d. Where within the major do you assess values/citizenship/community? These activities might include behaviors, perspective, awareness, responsibility, teamwork, ethical/professional standards, service learning or community participation. Describe the assessment method(s) used. Describe assessment results if available.

Values are reinforced through discussion of the diversity of various ethnic backgrounds. Ethic considerations and value judgments are discussed and students have to learn how to put aside their own biases, etc. Every EMS course touches on ethical considerations and values. Students explore their own values and must learn how to be completely objective.