

**Bergen Community College
Division of Health Professions
Paramedic Science Program
Fall 2014**

PAR 104-001 and 002	Paramedic Clinical Concepts I
Meeting Times	001:Tuesday and Friday 7am-7pm 002:Wednesday and Saturday 7am-7pm
Location:	Offsite at clinical affiliate
Lead Faculty:	Professor Piccininni
Office Location:	P111
Phone:	201-301-1590
Office Hours:	Monday and Thursday 10:30 – 12:00 and by appointment
Email Address:	jp Piccininni@bergen.edu
Faculty:	Professor McCarthy
Office Location:	P111
Phone:	201-301-1592
Office Hours:	Tuesday and Wednesday 9:30 – 11:30 and by appointment
Email Address:	jmccarthy@bergen.edu

Course Description

This course introduces the student to actual patient experiences in the hospital clinical environment. Students will demonstrate the concepts and understanding of paramedic clinical skills. Rotations include various patient care areas allowing competency in respiratory care, airway management, cardiac care, intravenous access and medication administration. Students are assigned to a preceptor who is responsible to observe and assess performance. Travel to off-site clinical affiliates is required. Lecture[2.00]. Clinical [1.00].

Prerequisite[s]: BIO-209, MAT Elective, PSY-201, SOC-101, [WRT-201 or WRT-202].

Co-requisite[s]: PAR-101, PAR-102, PAR-104.

Paramedic Program Core Competencies:

A. Ethics and EMS Structure

- A1. Exhibit a professional code of conduct with personal and professional integrity.
- A1. Provide compassionate care to all populations while respecting cultural differences.
- A3. Comply with all state and federal regulation/laws for an entry-level paramedic.

B. Patient Assessment and Skills

- B1. Utilize a systematic assessment to determine appropriate modalities for medical and trauma patients of all ages while prioritizing interventions needed to improve patient outcomes.

B2. Demonstrate skill proficiency in all entry-level psychomotor skills, utilizing them when clinically appropriate and at the correct time to improve patient outcomes.

B3. Function as a member of the paramedic team by using effective communication and proper behavior that promotes customer service and efficient care.

C. Safety and Personal Wellness

C1. Correctly identifies potential hazards to promote a safe environment for self, co-workers, patients and bystanders.

C2. Uses critical thinking skills to properly manage and diffuse stressful environments.

C3. Identifies personal stress and utilizes stress management techniques to ensure physical and emotional health.

Student Learning Objectives:

As a result of meeting the requirements in this course, students will be able to:

Customer Satisfaction

Integrates customer service techniques into patient encounters to promote overall well being of patient.

Medical Legal – Ethical

Integrate comprehensive knowledge of EMS systems, safety/well being of the paramedic, and medical/legal and ethical issues, which are intended to improve the health of EMS personnel, patients, and the community.

Clinical Decision Making

Integrate scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. This includes developing a list of differential diagnoses through clinical reasoning to modify the assessment and formulate a treatment plan.

Assessment Based Management

Integrate scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. This includes developing a list of differential diagnoses through clinical reasoning to modify the assessment and formulate a treatment plan.

Patient Exam and Differential Diagnosis

Integrate scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. This includes developing a list of differential diagnoses through clinical reasoning to modify the assessment and formulate a treatment plan.

Airway Management

Integrate complex knowledge of anatomy, physiology, and pathophysiology into the assessment to develop and implement a treatment plan with the goal of assuring a patent airway, adequate mechanical ventilation, and respiration for patients of all ages.

Venous Access and Medication Administration

Integrate comprehensive knowledge of pharmacology to formulate a treatment plan intended to mitigate emergencies and improve the overall health of the patient.

Respiratory Therapy (24 Hours)

Act as part of the respiratory therapy team participating in care for patients who require respiratory treatments or tests.

Advanced Airway (24 Hours)

Act as part of the anesthesia team participating in care for patients who require basic and advanced airway management.

IV Therapy (16 Hours)

Act as part of the patient care team participating in care for patients who require intravenous therapy and phlebotomy samples.

Cardiology (16 Hours)

Act as part of the patient care team participating in care for patients who require EKG tracings and other cardiology tests.

Instructional Resources

Available in the library and computer labs

- Annals of Emergency Medicine
- Journal of Emergency Medical Services (JEMS)
- Journal of Accident and Emergency Medicine
- New England Journal of Medicine
- Pre-Hospital Emergency Care Journal

Means of Assessment

In accordance with accreditation standards, students will be provided ample feedback to allow them the ability to improve performance in cognitive, psychomotor and affective domains of learning. Assessment for this course will include feedback in the following areas: written, psychomotor and behavior.

Quiz (2)	10%
Affective Behavior Assessment 1/assigned shift	20%
Clinical Evaluation Form 1/assigned shift	20%
Patient Cases/Medication Cards	10%
Journal Article Review	10%
Final Written Exam	20%
Participation	10%

Journal Article Review:

Students will select a topic pertinent one of the clinical rotations. After the approval of the clinical coordinator, the student will select a journal article with the assistance of the librarian. The student will present the journal article and facilitate an evidence based review of the article. A summary paper in APA format will be required.

Moodle Structure:

The delivery platform for this course is a hybrid format utilizing a Moodle program. Students must fully participate in both online and on campus components of the course to successfully complete the course.

The Moodle structure will provide opportunities for discussion boards, email communication, class announcements, online patient cases, and completion of tests and quizzes.

Course Menu in Moodle:

- Online Syllabus
- Course Announcements
- Forums
- Assignments
- Email
- My grades

Recommended Practice

To effectively manage this course for successful completion, you should do the following:

- Read and follow the course syllabus by adhering to the assigned dates of completion
- Read the messages under “Course Announcements”
- Follow the course calendar in Moodle
- Timely complete and submit all assignments – late assignments will not be accepted!
- Use the email communication platform to communicate with other students and the instructor.
- Actively participate in class and in online discussions

Course Content

This course will offer students the ability to gain cognitive knowledge related to patient care principles. The majority of the class will require students to work individually. Occasional group assignments may be utilized. Students will obtain clinical skill knowledge and competency prior to entering a clinical rotation.

Pass Rate:

The Paramedic Department pass rate is an 80%. Students are required to obtain a final average of an 80% in each core curriculum course. At the end of the semester, any student not achieving an 80% will be unable to continue in the program.

Final Exam Minimum Score:

In addition to the program pass rate, students are required to obtain a minimum grade of 77% on all final exams. Any student not obtaining a 77% on the final exam will be unable to continue in the program.

Schedule the first month of class:

This course will meet on campus the first month of the semester. Students will only proceed to clinical rotations at a clinical affiliate once they have been assessed for skill competence. Skill competence includes competence in written, psychomotor and affective domain assessments.

Clinical Competence:

The Paramedic Science clinical experience is designed to provide the paramedic student with exposure to a variety of clinical settings and opportunities for skill performance. Similar to the EMS environment, patient volume, acuity and activity levels vary widely from day to day within the hospital setting and are hard to predict. The minimum hours for each area reflect the time needed for a typical student to meet the objectives for that clinical area. Individual student hours may vary to obtain clinical competence. Successful completion of a clinical area is defined as completion of the required minimum hours *AND* achieving all learning objectives including required skills. Additional hours may be required if any objective has not been met. An alternative learning environment may be provided once students make a good faith effort to obtain the skill requirements through completion of 25% of the required time assigned.

No student can proceed to the next category without successfully completing the requirements in the previous category.

Course Texts**Required Text:**

American Heart Association. *Advanced Cardiovascular Life Support Handbook*, April 2011, American Heart Association Incorporated (ISBN – 978-1-6166-9000-7)

Jones Bartlett *Premier Bundle Package 2.0* (ISBN: 9781284038316)

Jones Bartlett *Bergen Medic Package* (ISBN 9781284059342)

Optional Text:

Walls, Ron. *Manual of Emergency Airway Management*, 4th Edition, 2012, Lippincott, Williams and Wilkins. (ISBN 9781451144918)

Research, Writing and Examination Requirements

Students will be required to develop patient case studies that effectively depict a common medical emergency. Requirements will include appropriate description of signs, symptoms, patient presentation, pertinent medical history, medications and/or recent surgeries. Student will present their case to group.

Grading Scale

A	93-100
B+	89-92
B	85-88
C+	82-84

C	80-81
F	Below 80
N	Incomplete (course requirements not fulfilled)

Academic Conduct

The paramedic program faculty adheres to the policy statement governing academic conduct as outlined in the Bergen Community College catalog.

- Faculty may not post exam grades publicly due to privacy laws.
- Scholastic dishonesty including but not limited to plagiarism, cheating, and collusion will not be tolerated. Any student who has demonstrated any of these behaviors will be disciplined according to the Policy and Procedure Manual of the program.

Attendance Policy

Please refer to the Paramedic Policy Manual for exact absence policy information.

The Commission on Accreditation of Allied Health Education Programs (CAAHEP) requires that students meet a minimum number of didactic/lab, clinical and field internship hours. Therefore students are expected to attend all class sessions.

No make-up quizzes, tests or exams will be given. Any student who is absent for a quiz, test, or exam will receive a grade of "0".

Students will be allowed one excused absence per semester for all four PAR courses. An absence is considered excused when a student notifies the professor prior to the start of class that they will be absent. Any additional absences will negatively affect the student's grade. For each unexcused absence the final grade will reduce by 1 point. For each excused absence the final grade will reduce by 0.5 point.

Tardiness will not be tolerated. In accordance with New Jersey state regulation, an attendance sheet will be available at the beginning of the class. If a student is tardy 3 times it will be calculated as an unexcused absence.

Other College, School and/or Departmental Policy Statements

The Paramedic Program is accredited by two agencies, The Commission on Accreditation of Allied Health Education Programs (CAAHEP) and the New Jersey Department of Health and Human Service – Office of Emergency Medical Services.

The Bergen Community College Paramedic Science Program has been issued a Letter of Review by the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP). This letter is NOT a CAAHEP accreditation status, it is a status signifying that a program seeking initial accreditation has demonstrated sufficient compliance with the accreditation Standards through the Letter of Review Self Study Report (LSSR) and

other documentation. Letter of Review is recognized by the National Registry of Emergency Medical Technicians (NREMT) for eligibility to take the NREMT's Paramedic credentialing examination(s). However, it is NOT a guarantee of eventual accreditation.

To contact CoAEMSP:

8301 Lakeview Parkway Suite 111-312

Rowlett, TX 75088

214-703-8445

FAX 214-703-8992

www.coaemsp.org

The Paramedic Department Policy and Procedure Manual has been reviewed at orientation. The purpose of the manual is to clearly outline the role and responsibility of each stakeholder in the education process; the student, the patient, the faculty, the clinical affiliate and the college. Students and faculty are expected to adhere to the policies of the program.

Student and Faculty Services

Students are encouraged to seek assistance from peers and/or faculty members whenever they are having difficulties with the program curriculum. The Paramedic Science Program is structured to ensure the needs of the paramedic student will be met. There will be open skill labs and simulation sessions available to allow students to access adjunct faculty for support with any learning difficulties. Peer tutors will be utilized to facilitate further success in the program.

Americans with Disabilities Act

Students who require accommodations in accordance with Americans with Disabilities Act (ADA) can request these services from the Office of Specialized Services. To learn more about the services offered at Bergen Community College, visit them at www.bergen.edu/oss.

Course calendar:

Week	Topic	Assignment
1	Course Orientation: Welcome to Medic Life; Anxiety & Stress, Customer Satisfaction / Patient Communication	<i>Clinical Handbook</i> <i>Emergency Care in the Streets</i> Chapter 5
2	Medical Legal	<i>Emergency Care in the Streets</i> Chapter 4
3	ALS Assessment, Clinical Decision Making, Assessment Based Management, Airway Devices Intro	<i>Emergency Care in the Streets</i> Chapter 13 and 14
4	Respiratory Assessment and Devices	<i>Emergency Care in the Streets</i> Chapter 15 and 16

5	Quiz #1 Respiratory Simulation	
6	Respiratory Therapy 12 hours	<i>Clinical Handbook</i>
7	Respiratory Therapy 12 hours	<i>Clinical Handbook</i>
8	Anesthesia Rotation 16 hours	<i>Clinical Handbook</i>
9	Anesthesia Rotation 16 hours	<i>Clinical Handbook</i>
10	Intravenous Therapy 12 hours Quiz #2	<i>Clinical Handbook</i>
11	Cadaver Lab 6 hours	<i>Clinical Handbook</i>
12	Intravenous Therapy 12 hours	<i>Clinical Handbook</i>
13	Cardiology 8 hours	<i>Clinical Handbook</i>
14	Cardiology 8 hours	<i>Clinical Handbook</i>
15	Final Exam	

All syllabus and course calendars are subject to change.

Respiratory Therapy (24 Hours)

Objectives:

- Identify breath sounds correctly, using proper auscultation technique, including patients exhibiting clear sounds, diminished sounds, rales, rhonchi, and wheezing.
- Demonstrate the correct insertion of the nasopharyngeal and oropharyngeal airways utilizing the appropriate equipment and proper technique.
- Demonstrate suctioning via the oral, nasal, tracheal and endotracheal routes, utilizing the appropriate equipment and proper technique.
- Identify the medications administered by nebulizer, including the indications, contraindications, dosing, and desired effect.
- Interpret the results of an arterial blood gas analysis.
- Describe the indications for use of the mechanical ventilator, including available settings/modes.
- Interpret arterial blood gas results correctly, and relate results to clinical presentation.

Required Activities:

- Document all skills performed (Includes: airway insertion, suctioning, medication administration) on the patient record in accordance with hospital policy.
- Document all skills performed (Includes: airway insertion, suctioning, medication administration) on the clinical log sheet and/or FISDAP.

Skill Expectations:

- Auscultate breath sounds on a minimum of 20 patients, with proper technique and successful identification of breath sounds.
 - Auscultate breath sounds on a minimum of 10 patients with adventitious breath sounds (rales, rhonchi, wheezing), with proper technique and successful identification of breath sounds.
- Observe a minimum of 10 arterial blood gas collections, and correctly interpret the ABG results.
- Perform endotracheal suctioning on a minimum of 5 patients, using proper aseptic technique.
- Prepare and administer a minimum of 10 nebulized medications, using proper equipment, dosing, and technique.
- Perform a minimum of 5 CPAP applications, using appropriate equipment and proper technique.
- OPTIONAL: Observe a pulmonary function test.
- OPTIONAL: Observe a bronchoscopy.

Advanced Airway (24 Hours)

Objectives:

- Demonstrate proper assessment of the airway prior to intubation, including assessment for difficulty in ventilation, difficulty in laryngoscopy, and difficulty in surgical airway placement.
- Demonstrate correct technique for pre-oxygenation prior to airway device insertion.
- Demonstrate endotracheal intubation, including equipment selection and proper technique.
- Demonstrate primary and secondary techniques for confirmation of ETT placement.
- Demonstrate placement of a supraglottic airway device, utilizing correct equipment and proper technique.

Required Activities:

- Submit 5 case studies describing the operations/procedures observed. Include the following: difficult airway assessment, airway management used, patient diagnosis, operation/procedure performed, and any changes in patient condition.
- Document all airway device insertions on the patient record in accordance with hospital policy.
- Document all airway device insertions (successful and unsuccessful) on the clinical log sheet and/or FISDAP.

Skill Expectations:

- Observe a minimum of 5 operations, including anesthesia's role in patient management.
- Perform ventilation of the un-intubated patient (using a bag-valve-mask), utilizing correct equipment and proper technique, for a minimum of 10 patients.
- Perform a minimum of 5 successful endotracheal intubations, utilizing correct equipment and proper technique.
- Perform a minimum of 2 successful supraglottic airway insertions (i.e. King Tube, LMA, CombiTube), utilizing correct equipment and proper technique.

IV Therapy (16 Hours)

Objectives:

- Identify the proper equipment for blood collection and venipuncture.
- Identify the proper sites for venipuncture and prepare the patient for the procedure.
- Demonstrate proper venipuncture technique, including: patient preparation, aseptic technique, equipment selection, and skill performance.
- Identify the proper equipment for IV access.
- Demonstrate proper selection of IV solution and IV tubing.
- Calculate the correct rate(s) of infusion for administering MICU approved medications.

- Identify the proper sites for IV access and prepare the patient for the procedure.
- Demonstrate proper IV insertion technique, including: patient preparation, site selection, equipment selection, aseptic technique and skill performance.

Required Activities:

- Document all venipunctures on the patient record in accordance with hospital policy.
- Document all venipunctures on the clinical log sheet and/or FISDAP.
- Document all IV insertions on the patient record in accordance with hospital policy.
- Document all IV insertions (successful and unsuccessful) on the clinical log sheet and/or FISDAP.

Skill Expectations:

- Perform a minimum of 20 successful venipunctures using proper aseptic technique and equipment.
- Perform a minimum of 20 successful intravenous (IV) insertions utilizing proper aseptic technique and equipment.

Cardiology (16 Hours)

Objectives:

- Identify the location of the heart chambers, valves, major arteries and veins, and coronary arteries.
- Explain the expected ECG findings and patient signs & symptoms associated with occlusion of each of the major coronary arteries.
- Identify the medications commonly in use in the cardiac catheterization lab.
- Identify the effects of medications and electrolyte imbalances on the electrocardiogram.

Required Activities:

- Submit a minimum of 2 patient case studies.
- Prepare a minimum of 4 medication cards. The medications should be non-MICU approved drugs encountered during the cardiology rotation; medication cards will include: generic and trade names, mechanism of action, indications, contraindications, dosage range, route(s) of administration, desired effect, and potential adverse reactions.
- Document any skills performed on the patient record in accordance with hospital policy, and on the clinical log sheet and/or FISDAP.

Skill Expectations:

- Observe a minimum of 2 cardiac catheterizations; at least of 1 of which should be an “emergent” cardiac catheterization (patient presenting with acute MI symptoms).
- Perform a minimum of ten 12-lead ECGs with successful interpretation.

- OPTIONAL: Observe a cardiac stress test.

OPTIONAL: Observe an echocardiogram.