Course Prefix/Number/Title: EMS 210 - Pre-hospital Pharmacology I

Number of Credits: 2 credits

Course Description: This course introduces the paramedic student to medications used in the pre-hospital setting that are focused on mechanism of action, indications, contraindications, dosing and correct administration are discussed in this class. This course also introduces the paramedic student to the proper techniques of preparing for, starting and managing and IV site, drug dose calculations and IV therapy. Students will be introduced to the autonomic nervous system and its functions.

Pre-/Co-requisites: None

Course Objectives: To integrate complex knowledge of medications and drug calculations. To understand indications, contraindications, side effects, and dosage and routes of emergency medications for patients of all ages. To understand IV therapy and the types of fluids and how they play a role in maintaining a fluid balance in the human body. To understanding aseptic techniques, how IV equipment works and proper application and fluid administration. To understand the anatomy and physiology of the autonomic nervous system, comparing its actions.

Teaching-learning methods in this course may include, but are not limited to, assigned readings, independent studies, presentations, discussion, critical thinking exercises, labs and class activities.

Instructor: Wayne Fahy and Mary Jund

Office: 1900 8th Ave SE Minot ND

Office Hours: By appointment.

Phone: 701-852-9483

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                Mary Jund: mary.jund@dakotacollege.edu

Lecture/Lab Schedule: Monday and Thursday for 6:15-10:15 pm. See class schedule.

Textbook(s): Bledsoe, B., Porter, R., Cherry, R. (2017). Paramedic Care Principles and Practice Volumes 1-5, 5th Edition. Hoboken, NJ: Brady Books.

Course Requirements: Students will be required to attend class and complete assignments in MyBradyLab and exams in EMStesting on time. Final exams will be worth 40%, additional tests 20%, quizzes 20%, homework 10% and affective behavior 10%. All final course grades will be calculated on a weighted grading system. Assignments, quizzes and other tests will be graded based on the scale below:

A	90- 100
B	80- 89
C	70- 79

D   60- 69

F   < 59

Students will also be required to pass skill sheets and scenario skills sessions per portfolio requirements (where applicable). Please see DCB Paramedic Handbook for full grading and course requirements.

Tentative Course Outline: Paramedic Care Principles and Practice Volumes 1-5, 5th Edition. Vol. 1, Ch. 13 & 14.

TOPIC – CLASSROOM

Chapter 13   Basic Pharmacology – Part 1
Chapter 14   Principles and Routes of Medication Administration – Part 1
                 Intravenous Access, Blood Sampling, and Intraosseous Infusion – Part 2
                 Medical Mathematics – Part 3

TOPIC – LAB

                 Inhaled Medication Administration – Skill Lab
                 Intravenous Therapy – Skill Lab
                 Intravenous Piggyback Infusion – Skill Lab
                 Intravenous Bolus Medication Administration – Skill Lab
                 Intraosseous Infusion – Skill Lab
                 Intranasal Medication Administration – Skill Lab
                 Intramuscular and subcutaneous Medication Administration – Skill Lab

Course objectives details to be covered according to the EMS National Standards instructional guidelines.

General Education Competency/Learning Outcome(s) <u>OR</u> CTE Competency/Department Learning Outcome(s): Students will apply knowledge gained in the didactic component of the program to achieve a minimum of 70% proficiency in all of the following curricular levels of EMS Testing exams: 1) airway management, 2) medicine, 3) EMS operations, 4) assessment, 5) preparatory, 6) special patient populations and 7) shock/resuscitation/trauma.

Relationship to Campus Theme: The goal of the Paramedic Program is to prepare professionals to work in the emergency medical services industry. The Paramedic Program is committed to a hands-on learning environment and uses field experiences and emerging technologies in emergency medical services as common instructional techniques.

Classroom Policies: Dakota College at Bottineau Paramedic Program guides.

Student Email Policy: Dakota College at Bottineau is increasingly dependent upon email as an official form of communication. A student's campus-assigned email address will be the only one recognized by the Campus for official mailings. The liability for missing or not acting upon important information conveyed via campus email rests with the student.

Academic Integrity: According to the DCB Student Handbook, students are responsible for submitting their own work. Students who cooperate on oral or written examinations or work without authorization share the responsibility for violation of academic principles, and the students are subject to disciplinary action even when one of the students is not enrolled in the course where the violation occurred. The Code

detailed in the Academic Honesty/Dishonesty section of the Student Handbook will serve as the guideline for cases where cheating, plagiarism or other academic improprieties have occurred.

Disabilities or Special Needs: Students with disabilities or special needs (academic or otherwise) are encouraged to contact the instructor and Disability Support Services within the first two weeks of the semester to line up accommodations.

Title IX: Dakota College at Bottineau (DCB) faculty are committed to helping create a safe learning environment for all students and for the College as a whole. Please be aware that all DCB employees (other than those designated as confidential resources such as advocates, counselors, clergy and healthcare providers) are required to report information about such discrimination and harassment to the College Title IX Coordinator. This means that if a student tells a faculty member about a situation of sexual harassment or sexual violence, or other related misconduct, the faculty member must share that information with the College's Title IX Coordinator. Students wishing to speak to a confidential employee who does not have this reporting responsibility can find a list of resources on the DCB Title IX Webpage.