EMS242 : Pharmacology

General Information

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Course Code (CB01) :	EMS242
Course Title (CB02) :	Pharmacology
Department:	EMS
Proposal Start:	Fall 2024
TOP Code (CB03) :	(1251.00) Paramedic*
CIP Code:	(51.0904) Emergency Medical Technology/Technician (EMT Paramedic).
SAM Code (CB09) :	Advanced Occupational
Distance Education Approved:	No
Will this course be taught asynchronously?:	No
Course Control Number (CB00) :	CCC000642892
Curriculum Committee Approval Date:	10/25/2023
Board of Trustees Approval Date:	01/09/2024
Last Cyclical Review Date:	10/25/2023
Course Description and Course Note:	EMS 242 introduces the paramedic student to the effects of medication and how it moves through the body. This course includes laws affecting the use and distribution of medications, medication dosing, clinical calculations, routes of administration. The course discusses common medication classifications including conditions and circumstances to use certain medications as indicated and their side effects. The course also discusses diverse populations and various cultural attitudes towards medical interventions.
Justification:	New Course
Academic Career:	• Credit
Author:	• Abraham Baca

Academic Senate Discipline

Primary Discipline:	• Emergency Medical Technologies
Alternate Discipline:	
Alternate Discipline:	

Course Development

Basic Skill Status (CB08)

Course is not a basic skills course.

☐ Allow Students to Gain Credit by Exam/Challenge

Course Special Class Status (CB13)

Course is not a special class.

Pre-Collegiate Level (CB21)

Not applicable.

Grading Basis

- Grade with Pass / No-Pass Option

Course Support Course Status (CB26)

Course is not a support course

Transferability & Gen. Ed. Options

General Education Status (CB25)

Not Applicable

Transferability

Not transferable

Transferability Status

Not transferable

Units and Hours

Summary

Minimum Credit Units (CB07)	3.5
Maximum Credit Units (CB06)	3.5
Total Course In-Class (Contact) Hours	90
Total Course Out-of-Class Hours	117
Total Student Learning Hours	207

Credit / Non-Credit Options

Course Type (CB04)

Credit - Degree Applicable

Noncredit Course Category (CB22)

Credit Course.

Noncredit Special Characteristics

No Value

Course Classification Code (CB11)

Credit Course.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	3	6
Laboratory Hours	2	0
Studio Hours	0	0

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	54
Course In-Class (Contact) Hours	
Lecture	54

Laboratory	36
Studio	0
Total	90

Course Out-of-Class Hours

Lecture	108
Laboratory	9
Studio	0
Total	117

Time Commitment Notes for Students

Adult ICU Hospital Clinical (8 TBA hours)

Units and Hours - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
Adult ICU Hospital Clinical	Laboratory	0	0.5

Pre-requisites, Co-requisites, Anti-requisites and Advisories

Co-Requisite

EMS240 - Fundamentals of Paramedic Practice (in-development)

AND

Co-Requisite

EMS244 - Medical Emergencies (in-development)

Entry Standards

Entry Standards

No value

Course Limitations

Cross Listed or Equivalent Course	Description
No value	No value

Specifications

Methods of Instruction

Methods of Instruction	Lecture
Methods of Instruction	Laboratory
Methods of Instruction	Multimedia

Out of Class Assignments

- Medication cards
- Practice calculations

Methods of Evaluation	Rationale
Exam/Quiz/Test	Block exams
Evaluation	Lab skill evaluation
Writing Assignment	Medication cards
Exam/Quiz/Test	Final exam

Textbook Rationale

No Value

Textbooks

Author	Title	Publisher	Date	ISBN
Bryan E. Bledsoe	Paramedic Care: Principles and Practice Volume 1	Pearson	2022	9780136895022

Other Instructional Materials (i.e. OER, handouts)

No Value

Materials Fee

No value

Learning Outcomes and Objectives

Course Objectives

Explain pharmokinetics of medications, their indications and contraindications.

Recite and demonstrate routes of administration for each medication.

Demonstrate calculation proficiency with medication doses and clinical calculations.

Maintain proper aseptic techniques in administering medications through various routes.

SLOs

Describe knowledge of pharmacology and the paramedics role in safe medication administration. Expected Outcome Performance: 70.0

Identify adverse effects of selected medications that might interfere in meeting and maintaining basic human needs. Expected Outcome Performance: 70.0

Additional SLO Information

Does this proposal include revisions that might improve student attainment of course learning outcomes?

No

Is this proposal submitted in response to learning outcomes assessment data?

No

If yes was selected in either of the above questions for learning outcomes, explain and attach evidence of discussions about learning outcomes.

No Value

SLO Evidence

No Value

Course Content

Lecture Content

Introduction (27 hours)

- Paramedic pharmacology
- Medication pharmacokinetics and pharmacodynamics
- Medication Indications/contraindications

Medication Law (27 hours)

- Medication distribution
    - Proper administration to diverse populations
    - Understanding how to withhold medications due to various cultural beliefs
- Medication storage
- Proper medication log

Total Hours: 54

Laboratory/Studio Content

Clinical Calculations (18 hours)

- Pediatric dose calculations
- Adult dose calculations

Routes of Administration (18 hours)

- Patient appropriate Intravenous (IV), Intraosseous (IO), insertion practice

Total Hours: 36