

برنامج الممن الطبية المساعدة

Specialization	الإسعاف الفوري
Course Number	21113291
Course Title	Paramedic Protocol
Credit Hours	(2)
Theoretical Hours	(2)
Practical Hours	(0)





جامعة البلقاء التطبيقية

Brief Course Description:

❖ This intensive study program will focus on the analysis of Medical Protocols, with a thorough emphasis on 'Standing Orders vs. Protocol' utilization. Medical Direction capabilities on-line, off-line and medical communications will be the focus.

Course Objectives:

Upon completion of this course the student will be able to:

- 1. Recite various protocols and establish what medical treatment may be given with out Medical Direction and under what circumstances.
- 2. Provide appropriate medical treatment based on the guidelines of Medical Direction.
- 3. Consider situations in which on-line Medical Direction is required but not possible or feasible and therefore identify those patients whom may be at risk.
- 4. Consider legal implications of Protocol use and violation of Medical Direction





جامعة البلغاء التطبيقية

Detailed Course Description:

	Detailed Course Description:			
Unit Number	Unit Name	Unit content	Time Needed	
1.	General protocols and	Medical patient assessment		
	procedures	Trauma patient assessment		
		Documentation		
		Personal, crew and patient safety		
		Spinal stabilization / immobilization		
		Rapid sequence induction (rsi)		
		Needle decompression		
		Needle cricothyroidotomy		
		Pneumatic antishock garment (pasg) application.		
2.	Cardiac emergencies	Asystole (cardiac arrest)		
	protocols	Pulseless electrical activity		
		Ventricular tachycardia		
		Bradydysrhythmias		
		Supraventricular tachycardia		
		Atrial fibrillation / atrial flutter		
		Narrow complex tachycardia		
		Premature ventricular complexes		
		(pvcs)		
		Ventricular tachycardia with pulses		
		Acute coronary syndrome / chest pain		
3.	Medical emergencies protocols	Abdominal pain (non-traumatic) Allergic reaction / anaphylaxis Altered mental/neurological status and hypoglycemia. Diabetic emergencies/hyperglycemia Toxicology / poisoning / substance abuse / overdose.		



جامعة البلغاء التطبيقية

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		Syncope of unknown etiology Acute stroke Seizures Hypertensive emergencies Congestive heart failure / pulmonary edema Adult upper airway obstruction Epiglottitis Bronchospasm / asthma Shock (hypoperfusion) of unknown etiology	
		Adult pain management	
4.	First Exam	Ald-win-1/pol-in-	
5.	Trauma emergencies protocols	Abdominal/pelvic trauma	
	protocois	Head trauma / injuries	
		Spinal column / cord injuries	
		Thoracic trauma fractures (general)	
		Fractures (femur)	
		Fractures (pelvis)	
		Soft tissue / crush injuries	
		Eye trauma	
		Traumatic amputations	
		Burns Prehospital disaster protocols - simple triage and rapid transport (s.t.a.r.t.) protocol Patient isolation protocol	
6.	Environmental emergencies protocols	Drowning and near-drowning emergencies	
		Hyperthermia / heat emergencies	



جامعة البلقاء التطبيقية

		Hypothermia / cold emergencies	
		Frostbite / cold emergencies	
		Snakebite	
7.	Second Exam.		
8.	Pediatric emergencies	Newborn resuscitation	
	protocols	Ventricular tachycardia (cardiac	
		arrest	
		Pulseless electrical activity / asystole	
		Bradydysrhythmias	
		Supraventricular tachycardia	
		Anaphylaxis	
		Bronchospasm / asthma/ croup	
		Upper airway obstruction	
		Pediatric coma / altered mental/	
		neurological status / diabetic in	
		children.	
		Pediatric seizures	
		Pediatric pain management	
9.	Obstetrical emergencies	Childbirth	
	protocols	Preeclampsia	
		Postpartum hemorrhage	





جامعة البلقاء التطبيقية

Evaluation Strategies:

Evaluation Strategies.			
Exams		Percentage	Date
Exams	First Exam	20%	//
	Second Exam	20%	//
	Final Exam	50%	//
Homework and Projects		10%	
Discussions and lecture			
Presentations			

Teaching Methodology:

- 1. Overhead projector
- 2. Data show
- 3. Handouts
- 4. Scenarios

Text Books & References:

Textbook:

1. Royal Medical Services Paramedic Protocols





برنامج المعن الطبية المساعدة

Specialization	الإسعاف الفوري
Course Number	21113235
Course Title	Dynamics of Pediatric Emergency Care
Credit Hours	(3)
Theoretical Hours	(2)
Practical Hours	(3)





جامعة البلقاء التطبيقية

Brief Course Description:

This course is designed to provide a well-rounded knowledge base in the care of Pediatric patients. Life span development and specific age-related illnesses and injuries will be highlighted. Anatomical differences in the Neonate, Child and Teenager will be reviewed to support alternative techniques in Assessment and Medical Management

Course Objectives:

This course aims at:

- 1. Identify and modify pediatric assessment and management techniques at differing developmental stages.
- 2. Identify, Describe and provide appropriate medical treatment for the signs and symptoms of various Pediatric emergencies
- 3. Provide appropriate medical management based upon assessment findings
- 4. Successful completion of Pediatric Advanced Life Support





جامعة البلغاء التطبيقية

Detailed Course Description:

Unit Number	Unit Name	Unit Content	Time Needed
1.	Emergency Medical Services for Children	■ Overview	
2.	Growth and Development Review	 Overview Pediatric Age Classifications Developmental Stages and Approach Strategies for Pediatric Patients Anatomy and Physiology Review for Pediatric Patients Illness and Injury by Age Group 	
3.	General Principles of Pediatric Assessment	 Overview Scene Assessment Initial Assessment Transition Phase Focused History Detailed Physical Exam Ongoing Assessment 	
4.	General Principles in Patient Management	 Overview Basic Airway Management Advanced Airway Management Circulation Pharmacological Management Nonpharmacological Management Transportation Considerations Psychological Support/Communication Strategies 	



جامعة البلقاء التطبيقية

5.	Specific Pathophysiology,	■ Respiratory Compromise
	Assessment, and	■ Shock
	Management	■ Dysrhythmias
	<u> </u>	■ Seizure
		Hypoglycemia and
		Hyperglycemia
		■ Infection
		 Poisoning and Toxic Exposure
6.	Pediatric Trauma	Overview
		 Special Considerations for
		Specific
		Injuries
		■ Trauma Management
		Considerations for
		Pediatric Patients
7.	Sudden Infant Death	■ Pathophysiology
	Syndrome	Management
8.	Child Abuse and Neglect	■ Overview
		■ Elements of Child Abuse
		 History of Injuries Suspicious
		for Abuse
		 Physical Findings Suggestive
		of Abuse
		■ Injuries From Sexual Abuse
9.	Infants and Children With	Tracheostomy Tubes
	Special Needs	■ Home Artificial Ventilators
		■ Central Venous Lines
		■ Gastric Tubes and
		Gastrostomy Tubes
		■ Shunts
10	Pediatric Advanced Life	Respiratory Failure & Shock
	Support	Basic Life Support For
		Children & Infants
		 Dysrythmias
		Advanced Airway
		Management



جامعة البلقاء التطبيقية

		 Trauma Toxicological Emergencies Newborn Care Sedation of Children & Infants Pediatric Rapid Sequence Intubation Special Needs, Death & Dying
11	Drugs That Affect the Eye and Ear	Drugs That Affect the EyeDrugs That Affect the Ear

Evaluation Strategies:

Exams		Percentage	Date
Exams	First Exam	20%	//
	Second Exam	20%	//
	Final Exam	50%	//
Homework and Projects		10%	
Discussions and lecture			
Presentations			

Teaching Methodology:

- 1. Interactive Lecture and situational discussion
- 2. AV Presentations PALS
- 3. Individual and Team role-playing of scenario based simulations

Text Books & References:

- 1. Mick J., (2001). Mosby's Paramedic Textbook (Revised 2nd ed). Mosby, Inc. Missouri.
- 2. Bloom et al (2004). Pediatric Advanced Life Support. American Heart Association. USA.
- 3. John Field, Mary Hazinski & David Gilmore (2006), American Heart Association, Guidelines, Handbook of Emergency Cardiovascular Care for Health Care Providers.



برنامج الممن الطبية المساعدة

Specialization	الإستعاف القوري
Course Number	21113281
Course Title	Medical Aspects of Hazardous Materials
Credit Hours	(2)
Theoretical Hours	(2)
Practical Hours	(0)





جامعة البلهاء التطبيهية

Brief Course Description:

❖ Hazardous Materials, and their risks. Identification of Hazardous Materials and related problems, precautions in approaching the contaminated patient, protective clothing, decontamination, and management of selected hazards

Course Objectives:

This course aims at:

- 1. Define hazardous materials terminology.
- 2. Identify legislation regarding hazardous materials that influences emergency health care worker.
- 3. Describe resources to assist in identification and management of hazardous materials incidents.
- 4. Identify protective clothing and equipment necessary to respond to selected hazardous materials incidents.
- 5. Describe Pathophysiology and signs and symptoms of internal damage caused by exposure to selected hazardous materials.
- 6. Identify Pathophysiology, signs and symptoms, and prehospital management of selected hazardous materials that produce external damage.
- 7. Outline the prehospital response to a hazardous materials emergency.
- 8. Describe medical monitoring and rehabilitation of rescue workers who respond to hazardous materials emergency.
- 9. Describe the emergency decontamination and management of patients who have been contaminated by hazardous materials
- 10. Outline the eight steps to decontaminate rescue personnel and equipment at hazardous materials incident





جامعة البلغاء التطبيقية

Detailed Course Description:

Unit Number	Unit Name	Unit Content	Time Needed
1.	The Scope of Hazardous Materials	 Hazardous Material (Hazmat) 	
2.	Personal Protective	Potential for injury	
	Clothing and	 Protective Respiratory Devices 	
	Equipment	 Classifications of Protective 	
		Clothing	
3.	Health Hazards	■ Routes of Exposure	
		■ Internal Damage	
		■ Irritants	
		Asphyxiates	
		■ External Damage	
5.	Response to Hazmat	Overview	
	Emergencies	 Hazard and Risk Assessment 	
	8	 Responding to the Scene 	
		■ Control of the Scene	
		■ Safety Zones	
6.	Medical Monitoring	 Personnel Safety 	
	and Rehabilitation	Documentation	
7.	Emergency	Overview	
	Management of	 Guidelines for Rapid 	
	Contaminated Patients	Decontamination	
		 Decontamination Decision 	
		Making	
		 Preparing the Ambulance for 	
		Patient Transfer	
9.	Decontamination of	 Decontamination Corridor and 	
	Rescue Personnel and	the "Eight Steps"	
	Equipment	■ Care and Maintenance of	
		Clothing and	
		Equipment	1
10.	Bioterrorism	■ Terrorism	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
		and manufactured to	77/



جامعة البلقاء التطبيقية

Evaluation Strategies:

Evaluation Strategies.			
Exams		Percentage	Date
Exams	First Exam	20%	//
	Second Exam	20%	//
	Final Exam	50%	//
Homework and Projects		10%	
Discussions and lecture			
Presentations			

Teaching Methodology:

- 1. Overhead project.
- 2. Data show
- 3. Handouts
- 4. Scenarios

Text Books & References:

1. Mick J., (2001). Mosby's Paramedic Textbook (Revised 2nd ed). Mosby, Inc. Missouri.





برنامج الممن الطبية المساعدة

Specialization	الإسعاف الفوري
Course Number	21113171
Course Title	Cardiology and Electro-Cardiographic Interpretation
Credit Hours	(3)
Theoretical Hours	(2)
Practical Hours	(3)





جامعة البلقاء التطبيقية

Brief Course Description:

❖ This Course is designed to instruct the student in Basic ECG Interpretation. Cardiac function, electrophysiology, conduction disturbances, treatment and Resuscitation modalities will highlight this course. Impaired cardiovascular function resulting in life-threatening arrhythmias will be the focus and will be the preparatory basis for the concurrent clinical component: Advanced Cardiac Life Support.

Course Objectives:

This course aims at:

- 1. Perform a comprehensive patient assessment concentrating on impaired Cardiac function.
- 2.Obtain and analyze multiple lead ECG recordings and identify Normal, Abnormal and life-threatening arrhythmias
- 3. Provide appropriate medical management based upon assessment findings



Unit Number	Unit Name	Unit Content	Time Needed
1.	Basic Arrhythmia	Introductory Comments / Rate	
	Interpretation	Determination.	
		-ECG Fundamentals	
		-ECG Monitoring	
		-QRS Nomenclature	
		-Calculation of Rate	
		-ECG Terminology	
		 Systematic Approach 	
		 Supraventricular Rhythms. 	
		Premature Beats / VT	
		Late Beats / Escape Rhythms	
		 Rhythms of Cardiac Arrest 	
		 AV Blocks-Basic Concepts 	
2.	Arrhythmia	 Selected Advanced Concepts 	
	Interpretation	 Aberrant Conduction 	
	Beyond the Core	Pediatric Rhythms	
4.	Preparatory	 The ABCDs of Emergency 	
		 Cardiovascular Care 	
		 Airway Management: Oxygenation 	
		&	
		Ventilation	
		 Vascular Access 	
		Dysrhythmia Recognition	
		Electrical Therapy	
		Myocardial Ischemia, Injury &	
		Infarction	
F	ACT C AT '41	Cardiovascular Pharmacology The ACLS Algorithms	
5.	ACLS Algorithms	The ACLS Algorithms Primary & Secondary ABCD	
		Primary & Secondary ABCD	
		Surveys Coording Arrest Phythms	
		 Cardiac Arrest Rhythms Peri-Arrest Rhythms 	
		 Peri-Arrest Rhythms 	



جامعة البلقاء التطبيقية

		 Acute Coronary Syndrome
6.	Acute Ischemic	Why Do We Care About Stroke?
	Stroke	 Classification of Stroke
		 Stroke-Chain of Recovery
		 Fibrinolytic Therapy
8.	Case Presentations	Respiratory Arrest
		 Ventricular Tachycardia / Ventricular
		Fibrillation with an AED
		 Pulseless Ventricular Tachycardia /
		Ventricular Fibrillation
		A systole
		 Pulseless Electrical Activity (PEA)
		 Acute Coronary Syndrome
		 Symptomatic Bradycardia
		 Stable & Unstable Tachycardia
		 Acute Ischemic Stroke

Evaluation Strategies:

Exams		Percentage	Date
Exams	First Exam	20%	//
	Second Exam	20%	//
	Final Exam	50%	//
Homework and Projects		10%	
Discussions and lecture			
Presentations			

Teaching Methodology:

- 1. Interactive Lecture and situational discussion
- 2. Static and Dynamic ECG analysis
- 3. Leadership and Team role-playing of scenario based simulations

Text Books & References:

- 1. Mick J., (2001). Mosby's Paramedic Textbook (Revised 2nd ed). Mosby, Inc. Missouri.
- 2. Barbara Aehlert., (2002) ACLS QUICK REVIEW STUDY GUIDE, Second Edition
- 3. KEN GRAUER & DANIEL CAVALLARO (1997), <u>ACLS ARRHYTHMIA</u> INTERPRETATION (ACLS Preparation & Clinical Approach)
- 4. John Field, Mary Hazinski & David Gilmore (2006), American Heart Association, Guidelines, Handbook of Emergency Cardiovascular Care for Health Care Providers

Theoretical Hours

Practical Hours



برنامج المحن الطبية المساعدة Specialization الإسعاف الفوري Course Number 21113111 Course Title Emergency Medical Technician-Basic Credit Hours (3)

(3)

(0)





جامعة البلقاء التطبيقية

Brief Course Description:

❖ This course is the entry level basis for Emergency Medical Services personnel. Included will be all skills necessary for the individual to provide emergency medical care at a basic life support level with an ambulance service or other specialized service. This course is designed to Certify a student to the level of Emergency Medical Technician-Basic who serves as the first vital link in the chain of Emergency Health Care. It is recognized that the majority of Prehospital emergency calls will be handled by the Emergency Medical Technician-Basic (EMT-B)

Course Objectives:

This course aims at:

- 1. Recognize the nature and seriousness of the patient's condition or extent of injuries to assess requirements for emergency medical care.
- 2. Administer appropriate emergency medical care based on assessment findings of the Patient's condition.
- 3. Lift, move, position and otherwise handle the patient to minimize discomfort and prevent further injury.
- 4. Perform safely and effectively the expectations of the job description.





جامعة البلغاء التطبيقية

Detailed Course Description:

Unit Number	Unit Name	Unit Content	Time Needed
1.	Preparatory	■ The Human Body	
		 Lifting and Moving Patient 	
2.	Airway	Airway	
3.	Patient	Scene Size-Up	
	Assessment	Initial Assessment	
		 Baseline Vital Signs and SAMPLE 	
		History	
		 Focused History and Physical Exam 	
		Trauma Patients	
		 Focused History and Physical Exam 	
		Medical Patient	
		Detailed Physical Exam	
		 On-Going Assessment 	
		- On-Going Assessment	
4.	First Exam.		
5.	Medical /	 General Pharmacology 	
	Behavioral	 Respiratory Emergencies 	
	Emergencies and	 Cardiovascular Emergencies 	
	Obstetrics /	 Diabetes/Altered Mental Status 	
	Gynecology	• Allergies	
		 Poisoning/Overdose 	
		 Environmental Emergencies 	
		Behavioral Emergencies Obstatics (Company)	
······	Coord E	Obstetrics/Gynecology	
6.	Second Exam.	- Di i 101 i	
7.	Trauma	Bleeding and Shock See Tiggue Injuries	
		Soft Tissue Injuries Myraylackeletal Core	
		 Musculoskeletal Care Injuries to the Head and Spine 	
		 Injuries to the Head and Spine 	



جامعة البلهاء التطبيهية

Evaluation Strategies:

Evaluation Strategiest			
Exams		Percentage	Date
Exams	First Exam	20%	//
	Second Exam	20%	//
	Final Exam	50%	//
Homework and Projects		10%	
Discussions and lecture			
Presentations			

Teaching Methodology:

- 1. Interactive lecture for didactic material.
- 2. Small group discussion related to defining concepts
- 3. Role-play, simulation and scenarios

Text Books & References:

References:

- 1. Daniel, L., Michael, F., Harvey, D., Robert, H., & David, B. (2002) Emergency Care. (9th ed.). BRADY / PRENTICE HALL HEALTH.
- 2. Mick, J., & Kim, M. (2001). Mosby's Paramedic Textbook (Rev. 2nd Ed.) Mosby, Inc. Missouri. USA
- 3. Thomas et al (2001). BLS For Healthcare Providers. AMERICAN HEART ASSOCIATION. USA.



Theoretical Hours

Practical Hours



جبرنامج المصن الطبية المساعدة Specialization الإسعاف الفوري Course Number 21113112 Course Title Emergency Medical Technician-Basic/ Practical Credit Hours (2)

(0)

(6)





جامعة البلقاء التطبيقية

Brief Course Description:

❖ This Course of study, provides a continuing solid introduction to the EMT Theory in the field of pre-hospital Emergency medical care. Emphasis is placed on recognition of Life-threatening illness or injury and providing immediate basic care until Advanced Life Support or Definitive Care is available.

Course Objectives:

This course aims at:

- 1. Demonstrate the skills involved in assessment of breathing, obtaining a pulse, assessing the skin color, temperature, condition, and capillary refill in infants and children assessing the pupils and obtaining blood pressure
- 2. Working with a partner, the EMT-Basic will demonstrate techniques for the transfer of a patient from an ambulance stretcher to a hospital stretcher
- 3. Demonstrate the steps in performing the head-tilt chin-lift and Jaw-thrust maneuvers
- 4. Introduce various scenarios and identify potential hazards
- 5. Demonstrate the techniques for conducting Initial Assessment
- 6. Demonstrate Rapid Trauma Assessment that should be used to assess specific patient types based on information gained
- 7. Demonstrate patient assessment
- 6. Demonstrate the steps necessary in performing a Detailed Physical Exam





جامعة البلغاء التطبيقية

Detailed Course Description:

Unit Number	Unit Name	Unit Content	Time Needed
1.	Preparatory	 The Human Body Anatomy models Baseline Vital Signs and SAMPLE History Exam gloves, stethoscope (dual and single head), blood pressure cuffs (adult, infant and child), penlights. Lifting and Moving Patients Wheeled stretcher, stair chair 'scoop stretcher, flexible stretcher, ambulance, long and short backboards, bed. 	
2.	Airway	 Airway Pocket mask, bag-valve-mask, flow restricted, oxygen-powered ventilation device, oral airways, nasal airways, suction units, suction catheters, oxygen tank, regulator, nonrebreather mask, nasal cannula, tongue blade, and lubricant. Practical Skills Lab: Airway Equipment from the list in Airway Evaluation: Airway Module Equipment required to evaluate the student's proficiency in the psychomotor skills of this module 	
3.	Patient Assessment	 Scene Size-Up None required. Initial Assessment Exam gloves, airway management 	



		and cardiac equipment.	
		Focused History and Physical Exam	
		- Trauma Patients	
		Exam gloves, stethoscope (dual and	
		single head), blood pressure cuffs (adult,	
		child and infant), penlight.	
		 Focused History and Physical Exam 	
		- Medical Patients	
		Exam gloves, stethoscope (dual and	
		single head), blood pressure cuffs (adult,	
		child and infant), penlight.	
		 Detailed Physical Exam 	
		Exam gloves, stethoscope (dual and	
		single head), blood pressure cuffs (adult,	
		child and infant), penlight.	
		 On-Going Assessment 	
		Exam gloves, stethoscope (dual and	
		single head), blood pressure cuffs (adult,	
		child and infant), penlight	
4.	Medical	 General Pharmacology 	
		None required	
		 Respiratory Emergencies 	
		Hand-held inhaler suitable for training	
		purposes and various spacer devices.	
		Cardiovascular Emergencies	
		CPR manikins, artificial ventilation	
		manikins, automated external	
		defibrillator, NTG training bottle,	
		defibrillation manikin	
		Diabetes/Altered Mental Status	
		Exam gloves, stethoscope, blood	
		pressure cuff, penlight, tube of glucose,	
		suitable glucose substitute.	
		Allergies	
		Epinephrine auto-injector,	
		epinephrine auto-injector trainer,	



		 synthetic skin mannequin for injection. Poisoning/Overdose Activated charcoal, suction equipment. Environmental Emergencies Exam gloves, stethoscopes, blood pressure cuffs, penlight. Behavioral Emergencies Stretcher, restraints. Obstetrics/Gynecology Childbirth kit, airway management equipment, eye protection, gloves. 	
5.	Trauma	 Bleeding and Shock Sterile dressings, bandages splints, pneumatic anti-shock garment, triangular bandages, stick or rod, air splints, gloves, eye protection, blanket. Soft Tissue Injuries Universal dressing, occlusive dressing, 4 x 4 gauze pads, self adherent bandages, roller bandages, triangular bandage, burn sheets, sterile water or saline. Musculoskeletal Care Splints: Padded arm and leg, air, traction, cardboard, ladder, blanket, pillow, pneumatic anti-shock garment, improvised splinting material, e.g., magazines, etc. Injuries to the Head and Spine Long spine board, short spine immobilization device, cervical immobilization devices, helmet, head immobilization device, blanket roll, two inch tape 	



جامعة البلقاء التطبيقية

Evaluation Strategies:

Exams		Percentage	Date
Exams	First Exam	20%	/
	Second Exam	20%	//
	Final Exam	50%	//
Homework and Projects		10%	
Discussions and lecture			
Presentations			

Teaching Methodology:

- 1. Demonstration and re-demonstration (Lab and or / clinical setting, hospital)
- 2. Case Presentation.
- 3. Role-playing
- 4. Role-Modeling
- 5. Simulation
- 6. Conference
- 7. Clinical Tutoring

Text Books & References:

Textbook:

- 1. Mick, J., & Kim, M. (2001). <u>Mosby's Paramedic Textbook</u> (Rev. 2nd Ed.) Mosby, Inc.Missouri. USA
- 2. Thomas et al (2001). BLS For Healthcare Providers. AMERICAN HEART ASSOCIATION.USA.
- 3. Bamonti et al (2003). PHTLS Basic And Advanced Prehospital Trauma Life Support (5th Ed.) Mosby, Inc. USA





برنامج المصن الطبية المساعدة

Specialization	الإسعاف الفوري
Course Number	21113121
Course Title	Pharmacology for Paramedicine
Credit Hours	(2)
Theoretical Hours	(2)
Practical Hours	(0)





جامعة البلهاء التطبيهية

Brief Course Description:

❖ This course will present the various agents used in the treatment of a wide variety of disease processes. Characteristics of drugs, types of drug names, drug standards and legislation and enforcement agencies pertinent to the paramedic, the paramedic's responsibilities that relate to drug administration, different types of allergic reactions to drugs, and autonomic nervous system functions that may be altered with the use of drug therapy.

Course Objectives:

This course aims at:

- 1. Describe characteristics of drugs.
- 2. dentify the four different types of drug names.
- 3. Outline drug standards and legislation and enforcement agencies pertinent to the Paramedic.
- 4. Describe the paramedic's responsibilities that relate to drug administration.
- 5. Distinguish among drug forms.
- 6. Differentiate between the four types of allergic reactions to drugs.
- 7. Outline autonomic nervous system functions that may be altered with the use of drug therapy
- 8. Discuss factors that influence drug absorption, distribution, and elimination.
- 9. Describe how drugs react with receptors to produce desired effects.
- 10. Outline variables that can influence drug interactions.
- 11. Identify special considerations for administering pharmacological agents to pregnant patients, pediatric patients, and older patients.
- 12. Outline drug actions and considerations for care of the patient who is given drugs that affect the nervous, cardiovascular, respiratory, endocrine, and gastrointestinal systems.
- 13. Explain the meaning of drug terms necessary to safely interpret information in drug reference sources.





جامعة البلغاء التطبيقية

Detailed Course Description:

Unit	Unit Name	Unit Content	Time
Number	C III T (UIII C	Cant Content	Needed
1.	Drug Information	 Historical Trends in Pharmacology 	
		- Ancient Health Care	
		– Modern Health Care	
		-Drug Characteristics	
		Drug Names	
		-Chemical Name	
		-Generic Name (Nonproprietary Name)	
		- Trade Name (Brand or Proprietary	
		Name)	
		-Official Name	
		 Drug Standards and Legislation 	
		– Before 1906, There was Little Control	
		over the Use of Medications	
		- Drug Legislation and Its Effects	
		- Standardization of Drugs	
		- Drug Regulatory Agencies	
		- Drug References	
		-Investigational New Drugs	
		- Scope of Management	
		 Drug Forms and Preparations and Routes of Administration 	
		-Drugs and Drug Preparations are	
		Available in Many Forms,	
		and Each has Specific	
		Indications,	
		Advantages, and	
		Disadvantages	
		– Drug Forms	
		-Overview of Routes of Drug	
		Administration	
		-Routes of Medication Administration	

		Pharmacological Terminology
		- Drugs May Act in the Body in Many
		Ways
		- Drugs Also May Interact with Other
		Drugs to Produce Uncommon and
		Frequently Unpredictable Effects
		Trequently Empredictable Effects — Terms
		Allergic Reactions to Drugs
		- Account for 6% to 10% of All Drug
		Reactions
		- Classifications of Drug Allergies
2.	Autonomic	Review of Anatomy and Physiology
₩•	Pharmacology	Autonomic Division of the Peripheral
	i nai macology	Nervous System
		- Pre-ganglionic and Postganglionic
		Neurons
		- Cholinergic and Adrenergic Fibers
		- Transmission of Nerve Impulses
	Mechanisms of Drug	General Properties of Drugs General Properties of Drugs
3.	Action	- Overview
3.	7 Action	- Pharmaceutical Phase
		– Pharmacokinetic Phase
		- Routes of Drug Administration
		- Parenteral Route (by injection)
		Pulmonary Route
		- Topical Route
		- Drug Distribution
		- Pharmaco-dynamic Phase
		 Drug Interactions
		- Variables that Influence Drug
		Interaction
		- Drug-Drug Interactions
		- Other Factors that can Influence Drug
		Interactions
		Drug Storage
	1	Diag Storage



جامعة البلغاء التطبيقية

4.	Drugs That Affect the Nervous System	 Certain Precepts Should Guide the Manner in which Drugs are Secured, Stored, Distributed, and Accounted For Factors that Affect Drug Potency Applies also to Diluents Security of Controlled Medications Drug Profiles and Special Considerations in Drug Therapy The Paramedic should be Familiar with the Drug Profiles of any Drug that He or She Administers Components of a Drug Profile Special Considerations in Drug Therapy Review of Anatomy and Physiology Nervous System Narcotic Analgesics and Antagonists Non-narcotic Analgesics Anti-anxiety and Sedative-Hypnotic Agents and Alcohol Anticonvulsants Central Nervous System Stimulants Psychotherapeutic Drugs Drugs for Specific CNS-Peripheral Dysfunction Drugs with Central Anticholinergic 	
		 Central Nervous System Stimulants Psychotherapeutic Drugs Drugs for Specific CNS-Peripheral Dysfunction 	
		 Drugs with Central Anticholinergic Activity Drugs Affecting the Autonomic Nervous System Skeletal Muscle Relaxants 	
5.	Drugs That Affect the Cardiovascular	Review of Anatomy and Physiology	



جامعة البلغاء التطبيقية

	System		
6.	Drugs That Affect the Blood	 Anticoagulants, Thrombolytics, and Blood Components 	
7.	Drugs That Affect the Respiratory System	Review of Anatomy and Physiology	
8.	Drugs That affect the Gastrointestinal System	Review of Anatomy and Physiology	
9.	Drugs That Affect the Eye and Ear	Drugs That Affect the EyeDrugs That Affect the Ear	
10.	Drugs That Affect the Endocrine System	Review of Anatomy and Physiology	
11.	Drugs That Affect the Reproductive System	 Drugs That Affect the Reproductive System 	
12.	Drugs Used in Neoplastic Diseases	Antineoplastic Agents	
13.	Drugs Used in Infectious Disease and Inflammation	 Antibiotics Anti-fungal and Antiviral Drugs Other Anti-microbial Drugs and Antiparasitic Drugs Anti-inflammatory and Non-steroidal Anti-inflammatory Drugs 	
14.	Drugs That Affect the Immunologic System	Review of Anatomy and Physiology	





جامعة البلهاء التطبيهية

Evaluation Strategies:

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Exams		Percentage	Date
Exams	First Exam	20%	//
	Second Exam	20%	//
	Final Exam	50%	//
Homework and Projects		10%	
Discussions and lecture			
Presentations			

Teaching Methodology:

- 1. Interactive lecture for didactic material.
- 2. Small group for discussing issues related to defining concepts
- 3. Brain, storming, role-play and simulation for teaching.
- 4. Seminars and student presentations
- 5. Video Films, Overhead project.
- 6. Data show
- 7. Handouts
- 8. Sceneries

Text Books & References:

Textbook:

- 1. Mick, J., & Kim, M. (2001). Mosby's Paramedic Textbook (2nd ed.) Mosby, Inc. Missouri.
- 2. Hashemite Kingdom of Jordan, Ministry of Health-Drug Directorate (2002). Jordan National Drug Formulary
- 3. Royal Pharmaceutical Society. (2003). British National Formulary 45 British Medical Association. UK



Practical Hours



جرنامج Specialization الإسعاف الفوري Course Number 21113131 Course Title Introduction to Emergency paramedicine Credit Hours (2) Theoretical Hours (2)

(0)



Brief Course Description:

❖ This course will provide the student with conceptual knowledge of the Medical Responsibility to be assumed upon Program completion, Credentialing and Position Placement under Medical Direction. Medico-legal implications will be presented. The essential component of the Emergency Health Care Team, the benefits to the Jordanian people will be introduced. Illness and injury prevention, medical-legal issues and ethics will also be included.

Course Objectives:

- 1. Operations.
- 2. Identify the roles and responsibilities of the Paramedic.
- 3. Describe the paramedic's role in a patient care situation.
- 4. Describe the benefits of each component of off-line/indirect and on-line/direct medical direction.
- 5. Describe the components and associated benefits of wellness.
- 6. Outline the benefits of specific lifestyle choices that promote wellness, including proper nutrition, weight control, exercise, sleep, and smoking cessation.
- 7. Identify the roles of the EMS community in illness and injury prevention.
- 8. Describe the basic structure of the legal system in Jordan.
- 9. Define common medical-legal terms that apply to prehospital situations involving patient care.
- 10. Define ethics and bioethics.
- 11. Distinguish between professional, legal, and moral accountability.
- 12. Discuss specific prehospital ethical issues including allocation of resources, decisions surrounding resuscitation, confidentiality, and consent.





جامعة البلغاء التطبيقية

Detailed Course Description:

Unit Number	Unit Name	Unit Content	Time Needed
1.	EMS System Development	 Before the Twentieth Century Twentieth Century Today's EMS System 	
		EMS System OperationsEMS Provider LevelsBenefits of Involvement	
2.	Paramedic Education	Initial EducationContinuing Education	
3.	Professionalism	 Profession Definition of Professionalism Health Care Professionals Attributes of the Professional Paramedic 	
4.	Roles and Responsibilities of the Paramedic	Primary ResponsibilitiesAdditional Responsibilities	
6.	Wellness Components	Physical Well-BeingMental and Emotional Health	
7.	Injury Epidemiology	 Statistics for Injury-Related Death Incidence, Morbidity, and Mortality Related Terminology 	
8.	Participation in Prevention Programs	 Community Health Assessment Community Health Intervention Community Health Education 	
10.	Legal Duties and Ethical Responsibilities	Legal DutiesEthical ResponsibilitiesFailing to Perform EMS	4



		Duties Appropriately Can Result in Civil or Criminal Liability Best Legal Protection is Providing Appropriate Assessment and Care Coupled with Accurate and Complete Documentation	
11.	The Legal System	 Types of Law How Laws Affect the Paramedic The Legal Process 	4
12.	Ethics Overview	 Terminology Concept of Ethics Professional Accountability Legal Accountability Moral Accountability 	4
13.	Ethical Issues in Contemporary Paramedic Practice	 Paramedics Face Several Ethical Issues during the Course of Their Careers Ethical Questions to Consider Allocation of Resources Decisions Surrounding Resuscitation Confidentiality Consent Application of Other Ethical Principles for Patient Care Situations 	6





جامعة البلهاء التطبيهية

Evaluation Strategies:

Evaluation Strategies.			
Exams		Percentage	Date
Exams	First Exam	20%	//
	Second Exam	20%	//
	Final Exam	50%	//
Homework and Projects		10%	
Discussions and lecture			
Presentations			

Teaching Methodology:

- 1. Interactive lecture for didactic material.
- 2. Small group for discussing issues related to defining concepts
- 3. Brain storming, role-play and simulation for teaching.
- 4. Seminars and student presentations
- 5. Video Films, Overhead project.
- 6. Data show
- 7. Handouts
- 8. Scenarios

Text Books & References:

- 1. Mick, J., & Kim, M. (2001). <u>Mosby's Paramedic Textbook</u> (2nd ed.) Mosby,Inc.Missouri.
- 2. Becknell, John M. (1995). <u>Medic Life Creating Success in EMS</u> JEMS COMMUNICATIONS Mosby, Inc. Missouri. USA.





برنامج المصن الطبية المساعدة

Specialization	الإسعاف الفوري
Course Number	21113133
Course Title	Preparatory to Emergency paramedicine
Credit Hours	(3)
Theoretical Hours	(3)
Practical Hours	(0)





جامعة البلقاء التطبيقية

Brief Course Description:

❖ Didactic theory in Fluid Replacement and Electrolyte imbalance will be presented to be followed by artificial simulation, IV placement in-group interaction. Pathophysiologic alterations in water and electrolyte balance and their effect on body functions, effects of cellular injury on local and systemic body functions

Course Objectives:

- 1. Describe the normal characteristics of the cellular environment and the key homeostatic mechanisms that strive to maintain a fluid and electrolyte balance.
- 2. Outline Pathophysiologic alterations in water and electrolyte balance and their effect on body functions.
- 3. Describe treatment of patients who have selected fluid or electrolyte imbalances.
- 4. Describe the mechanisms within the body that maintain normal acid- base balance.
- 5. Outline Pathophysiologic alterations in acid-base balance.
- 6. Describe the management of a patient with an acid-base imbalance.
- 7. Describe alterations in cells and tissues related to cellular adaptation, injury, neoplasm, aging, or death.
- 8. Outline the effects of cellular injury on local and systemic body functions.
- 9. Describe alterations in body functions related to genetic and familial disease factors.
- 10. Outline the causes, adverse systemic effects, and compensate mechanisms associated with hypoperfusion.
- 11. Describe how the body's inflammatory and immune responses respond to cellular injury or antigenic stimulation.
- 12. Describe the indications, equipment needed, technique used, precautions, and general principles of peripheral venous or external jugular cannulation.
- 13. Describe the indications, equipment needed, technique used, precautions, and general principles of intraosseous needle placement and infusion.
- 14. Discuss the "six rights" of drug administration and correlate these with the principles of medication administration.
- 15. Describe the use of universal precautions and body substance isolation (BSI) procedures when administering a medication.
- 16. Integrate pathophysiological principles of medication administration with patient management



جامعة البلغاء التطبيقية

Detailed Course Description:

Unit Number	Unit Name	Unit Content	Time Needed
1.	Cellular Physiology	 Basic Cellular Review The Cellular Environment Overview Intracellular and Extra cellular Fluid Aging and the Distribution of Body Fluids Water Movement between ICF and ECF Water Movement between Plasma and Interstitial Fluid Alterations in Water Movement Water Balance, Sodium, and Chloride Acid-Base Balance 	10
2.	Cellular Injury and Disease	 Alterations in Cells and Tissues Cellular Adaptation Cellular Injury Manifestations of Cellular Injury Cellular Death/Necrosis Genetics and Familial Diseases Overview Factors Causing Disease Analyzing Disease Risk Combined Effects and Interactions	8
3.	Cellular Injury and Disease	HypoperfusionPathogenesis	6

4.	First Exam.	 Types of Shock Multiple Organ Dysfunction Syndrome Cellular Metabolism Impairment Self-Defense Mechanisms Lines of Defense Inflammatory Response Immune Response Drug Administration Safety Considerations and Procedures Medication Errors 	
5.	Cellular Injury and Disease	 Medical Asepsis Removal or Destruction of Disease-Causing Organisms or Infected Material Antiseptics and Disinfectants Universal Precautions in Medication Administration Enteral Medication Administration Drugs Administered and Absorbed Through the GI Tract Includes Oral, Gastric, and Rectal Drug Administration Oral Route Administration of Medications by Gastric Tube Rectal Administration of Medications. 	8
6.	Cellular Injury and Disease	 Parenteral Administration of Medications Administered Outside the GI Tract; 	6



جامعة البلقاء التطبيقية

		Usually Injections	
		-Drugs Administered by Injection Are	
		Usually Considered Irretrievable	
		 Equipment Used for Injections 	
		 Intradermal Injections 	
		 Subcutaneous (SC) Injections 	
		 Intramuscular (IM) Injections 	
		 Intravenous Therapy 	
7.	Second Exam.		
8.	Cellular Injury	 Administration of Percutaneous 	
	and Disease	Medications	
	9 0		
	9 0	Medications	
	9 0	Medications - Overview	
	9 0	Medications - Overview - Topical Drugs	
	9 0	Medications - Overview - Topical Drugs - Sublingual Drugs	
	9 0	Medications - Overview - Topical Drugs - Sublingual Drugs - Buccal Drugs	
	9 0	Medications - Overview - Topical Drugs - Sublingual Drugs - Buccal Drugs - Inhaled Drugs	

Evaluation Strategies:

Evaluation strategiest			
Exams		Percentage	Date
Exams	First Exam	20%	//
	Second Exam	20%	//
	Final Exam	50%	//
Homework and Projects		10%	
Discussions and lecture			
Presentations			

Teaching Methodology:

- 1. Overhead projector
- 2. Data show
- 3. Handouts
- 4. Scenarios





جامعة البلغاء التطبيقية

Text Books & References:

Textbook:

- 1. Mick, J., & Kim, M. (2001). <u>Mosby's Paramedic Textbook</u> (2nd ed.) Mosby, Inc.Missouri.
- 2. Becknell, John M. (1995). Medic Life Creating Success in EMS JEMS Communications Mosby, Inc. Missouri. USA.





برنامج المصن الطبية المساعدة

Specialization	الإسعاف الفوري
Course Number	21113141
Course Title	Venous Access & Medication Administration
Credit Hours	(2)
Theoretical Hours	(1)
Practical Hours	(3)





جامعة البلقاء التطبيقية

Brief Course Description:

❖ Didactic theory in IV Fluid Replacement will be presented to be followed by artificial simulation, IV placement in-group interaction. The ability to understand venous access and to administer prescribed medications is an important part of professional paramedic practice. This course presents Lectures in IV placement in-group interaction .

Course Objectives:

- 1. Review the specific anatomy and physiology pertinent to medication administration.
- 2. Review mathematical principles.
- 3. Review mathematical equivalents.
- 4. Differentiate between temperature readings in the Centigrade and Fahrenheit scales.
- 5. Discuss formulas as a basis for performing drug calculations.
- 6. Discuss applying basic principles of mathematics to the calculation of problems associated with medication dosages.
- 7. Describe how to perform mathematical conversions from the household system to the metric system.
- 8. Describe the indications, equipment needed, technique used, precautions, and general principles of peripheral venous or external jugular cannulation.
- 9. Describe the indications, equipment needed, technique used, precautions, and general principles of intraosseous needle placement and infusion.
- 10. Discuss legal aspects affecting medication administration.
- 11. Discuss the "six rights" of drug administration and correlate these with the principles of medication administration.
- 12. Discuss medical asepsis and the differences between clean and sterile techniques.
- 13. Describe use of antiseptics and disinfectants.
- 14. Describe the use of universal precautions and body substance isolation (BSI) procedures when administering a medication.
- 15. Differentiate among the different dosage forms of oral medications.
- 16. Describe the equipment needed and general principles of administering oral medications.
- 17. Describe the indications, equipment needed, techniques used, precautions, and general principles of administering medications by the inhalation route.
- 18. Describe the indications, equipment needed, techniques used, precautions, and general principles of administering medications by the gastric tube.



- 19. Describe the indications, equipment needed, techniques used, precautions, and general principles of rectal medication administration.
- 20. Differentiate among the different parenteral routes of medication administration.
- 21. Describe the equipment needed, techniques used, complications, and general principles for the preparation and administration of parenteral medications.
- 22. Differentiate among the different percutaneous routes of medication administration.
- 23. Describe the purpose, equipment needed, techniques used, complications, and general principles for obtaining a blood sample.
- 24. Describe disposal of contaminated items and sharps.
- 25. Synthesize a pharmacological management plan including medication administration.
- 26. Integrate pathophysiological principles of medication administration with patient management





جامعة البلقاء التطبيقية

Detailed Course Description:

Unit Number	Course Description: Unit Name	Unit Content	Time Needed
1.	Mathematical Equivalents	Metric System	2
	Used in Pharmacology	Apothecary System	
		Household System	
		 Temperature Conversions 	
2.	Drug Calculations	 Required Calculations 	2
		 Choosing and Performing Drug 	
		Calculations	
		 Examples of Drug Calculation 	
		Methods	
		 Calculating Infusion Rates 	
		 Calculating Drug Dosages for Infants 	
		and Children	
3.	Drug Administration	 Safety Considerations and Procedures 	1
		Medication Errors	
4.	Medical Asepsis	 Removal or Destruction of Disease- 	2
		Causing Organisms or Infected	
		Material	
		 Antiseptics and Disinfectants 	
		 Universal Precautions in Medication 	
		Administration	
5.	First Exam.		
6.	Parenteral Administration	 Administered Injections 	2
	of Medications	 Equipment Used for Injections 	
		 Intradermal Injections 	
		Subcutaneous (SC) Injections	
		 Intramuscular (IM) Injections 	
		Intravenous Therapy	
7.	Administration of	 Topical Drugs 	2
	Percutaneous Medications	Sublingual Drugs	
		Buccal Drugs	
		 Inhaled Drugs 	
		Endotracheal (ET) Drugs	
		Drugs for the Eye, Nose, and Ear.	



جامعة البلقاء التطبيقية

9.	Special Considerations for Pediatric Patients	Guidelines	1
10.	Obtaining a Blood Sample	 Venous Blood Samples Steps for Obtaining a Blood Sample from an IV Site Obtaining a Blood Sample Using a Needle and Syringe 	1
11.	Disposal of Contaminated Items and Sharps	 Needles and Other Sharp Objects can Injure the Patient, Paramedic, They can also be the Source of Hepatitis or HIV Infection. 	1

Evaluation Strategies:

Evaluation Strategies.			
Exams		Percentage	Date
Exams	First Exam	20%	//
	Second Exam	20%	//
	Final Exam	50%	//
Homework and Projects		10%	
Discussions and lecture			
Presentations			

Teaching Methodology:

Lectures

Text Books & References:

Textbook:

1. John F. Wakerly, Digital design principle and practice.





برنامج المصن الطبية المساعدة

Specialization	الإسعاف الفوري
Course Number	21113151
Course Title	Emergency Paramedicine 1
Credit Hours	(3)
Theoretical Hours	(3)
Practical Hours	(0)





جامعة البلقاء التطبيقية

Brief Course Description:

❖ This primarily hands-on class will affirm the students 'ability to demonstrate and perform Primary and Secondary Patient Assessments, and establish the detailed physical examination process. Demonstration will involve small group situational practice. Introduction of scenario-based skills performance, case presentations, critique, and Therapeutic Communications and Documentation methodology are included

Course Objectives:

- 1. Distinguish between respiration, pulmonary ventilation, and external and internal respiration.
- 2. Describe assessment techniques and devices used to ensure adequate oxygenation, correct placement of the endotracheal tube, and elimination of carbon dioxide.
- 3. Explain variations in assessment and management of airway and ventilation problems in pediatric patients.
- 4. Given a patient scenario, identify potential alterations in oxygenation and ventilation based upon knowledge of gas exchange and mechanics of breathing.
- 5. Describe the purpose of effective history taking in prehospital patient care.
- 6. Outline effective patient interviewing techniques to facilitate history taking.
- 7. Describe physical examination techniques commonly used in the prehospital setting.
- 8. Describe the general approach to physical examination.
- 9. Outline the steps in the general patient survey.
- 10. Describe physical examination techniques used for assessment of specific body regions.
- 11. Distinguish between normal and abnormal findings when assessing specific body regions.
- 12. Identify the priorities in each component of patient assessment.
- 13. Describe findings in the initial assessment that may indicate a life-threatening condition.
- 14. Identify the components of the focused history and physical examination for medical patients & trauma patients.
- 15. Distinguish priorities in the care of the medical vs. trauma patient.
- 16. Outline the chain of EMS communications.
- 17. Describe the role of communications in EMS.
- 18.Describe the role of dispatching as it applies to prehospital emergency medical care.
- 19. Identify the purpose of the patient care report.
- 20. Describe an effective system for documentation of prehospital patient care



جامعة البلقاء التطبيقية

Detailed Course Description:

Unit Number	Unit Name	Unit Content	Time Needed
	Airway Evaluation	 Essential Parameters of Airway Evaluation Supplemental Oxygen Therapy Rationale for Oxygen Therapy Oxygen Sources Oxygen Delivery Devices Ventilation Rescue Breathing Mouth-to-Mask Bag-Valve Devices Flow-Restricted, Oxygen-Powered Ventilation Devices Automatic Transport Ventilators Airway Management Manual Techniques for Airway Management Suction Suction Devices Suction Catheters Mechanical Adjuncts in Airway Management Nasopharyngeal Airway (Nasal Airway) Oropharyngeal Airway (Oral Airway) Advanced Airway Procedures Endotracheal Intubation Nasotracheal Intubation Nasotracheal Intubation Nasotracheal Intubation Nasotracheal Intubation Oxygen Therapy Oxygen Therapy Oxygen Therapy Oxygen Therapy Oxygen Powered Ventilation Airway Management Nasotracheal Intubation Nasotracheal Intubation Oxygen Therapy Oxygen Therapy Oxygen Powered Oxygen Powered Oxygen Powered Oxygen Powered Oxygen Powered Oxygen Powere	
		 Intubation with Spinal Precautions Extubation Special Considerations for Pediatric Intubations Adjuncts to Aid in Confirming ET 	

		Tube Placement	
		– Multi-Lumen Airways	
		Pharmacological Adjuncts to Airway	
		Management and	
		Ventilation	
		- Introduction	
		- Paralytic Agents in Emergency	
		Intubation	
		-Rapid Sequence Induction (RSI)	
		 Translaryngeal Cannula Ventilation 	
		-Description	
		- Necessary Equipment	
		- Technique	
		- Advantages	
		-Disadvantages	
		-Potential Complications	
		-Method of Removal	
		Cricothyrotomy	
		-Description	
		- Necessary Equipment	
		- Technique	
		-Potential Complications	
		-Contraindications	
		- Method of Removal	
2.	Content of the	 Patient History Consists of Several 	7
	Patient History	Components	
		 Components of the Patient History 	
		- Techniques of History Taking	
		 Setting the Stage 	
		 Learning about the Present Illness 	
		Chief Complaint	
		 History of Present Illness (HPI) 	
		Significant Past Medical History	
		Current Health Status	
		 Getting More Information 	

3.	Physical Examination: Approach and Overview	- Special Challenges Silence Overly Talkative Patients Patients with Multiple Symptoms Anxious Patients False Reassurance Anger and Hostility Intoxication Crying Depression Sexually Attractive or Seductive Patients Confusing Behavior or Histories Limited Intelligence Communication Barriers Talking with Family and Friends Examination Techniques Examination Equipment General Approach to the Physical Examination Overview of a Comprehensive Physical Examination - Mental Status Introduction Appearance and Behavior Speech and Language Thought and Perceptions Memory and Attention - General Survey	7
		_	

		 Anatomical Regions Skin Head, Ears, Eyes, Nose, and Throat Chest Heart Abdomen Female Genitalia Male Genitalia Anus Musculoskeletal System Peripheral Vascular System Nervous System The Physical Examination of Infants and Children Approaching the Pediatric Patient General Appearance Physical Examination The Physical Examination of the Older Adult Communicating with the Older Adult Patient History Physical Examination 	
5.	First Exam.		
6.	Scene Size-Up	 Definition Priorities in Scene Size-Up Nature of the Incident Scene Safety Protective Clothing Personal Protection from Blood-Borne Pathogens Patient Assessment Priorities Initial Assessment General Impression of the Patient Assess for Life-Threatening Conditions 	6

		 Focused History and Physical Examination—Medical Patients Responsive Medical Patient Unresponsive Medical Patients Focused History and Physical Examination—Trauma Patients Reconsider the Mechanism of Injury Rapid Trauma Physical Examination Trauma Patient with No Significant Mechanism of Injury Detailed Physical Examination Purpose General Approach Overview of the Detailed Physical Examination On-Going Assessment Purpose Components Reassess and Record Vital Signs Repeat Focused Assessment Regarding Patient Complaint or Injuries Assess Interventions. Care of Medical vs. Trauma Patients Medical Patients Trauma Patients 	
7.	Spectrum of Prehospital Care	 Life-Threatening and Non–Life-	6

		 Application of Principle Evaluation Reflection on Action Fundamental Elements of Critical Thinking for Paramedics Elements Field Application of Assessment-Based Patient Management Patient Acuity Spectrum Thinking under Pressure Putting It All Together The Six Rs 	
8.	Phases of Communications during a Typical EMS Event	 Five Phases Role of Communications in EMS Role of Verbal, Written, and	6

		 Dispatcher Training Regulation Federal Communications Commission (FCC) Procedures for EMS Communications General Guidelines for Radio	
9. 10.	Second Exam. Importance of Documentation	 Reasons for Thorough Documentation General Considerations A. Narrative Elements of a Properly Written EMS Document Introduction Elements Systems of Narrative Writing Special Considerations Patient Refusal of Care and/or	6



جامعة البلقاء التطبيقية

Evaluation Strategies:

Evaluation Strategiest			
Exams		Percentage	Date
Exams	First Exam	20%	//
	Second Exam	20%	//
	Final Exam	50%	//
Homework and Projects		10%	
Discussions and lecture			
Presentations			

Teaching Methodology:

- 1. Interactive lecture for didactic material
- 2. Small group for discussing
- 3. Role-playing
- 4. Seminars and student presentations

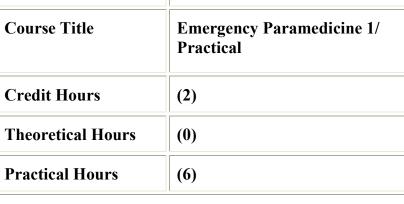
Text Books & References:

- 1. Mick, J., & Kim, M. (2001). Mosby's Paramedic Textbook (2nd Ed.) Mosby, Inc. Missouri.
- 2. Daniel, L., Michael, F., Harvey, D., Robert, H., & David, B. (2002). Emergency Care (9th Ed. Military)





برنامج الممن الطبية المساعدة Specialization الإسعاف الفوري Course Number 21113152 Course Title Emergency Paramedicine 1/







جامعة البلهاء التطبيهية

Brief Course Description:

❖ This primarily hands-on class will affirm the students 'ability to understand Primary and Secondary Patient Assessments, identifying Life-threatening situations and synthesizing information gathered to establish priorities in the treatment process and establish physical examination. Introduction of scenario-based skills performance, case presentations, critique, and Therapeutic Communication and documentation are topics of Instruction.

Course Objectives:

- 1. Demonstrate assessment techniques and devices used to ensure adequate oxygenation, correct placement of the endotracheal tube, and elimination of carbon dioxide.
- 2. Given a patient scenario, identify potential alterations in oxygenation and ventilation based upon practice of gas exchange and mechanics of breathing.
- 3. Perform the effective history taking in prehospital patient care.
- 4. Demonstrate effective patient interviewing techniques to facilitate history taking.
- 5. Apply physical examination techniques commonly used in the prehospital setting.
- 6. Perform the general approach to physical examination.
- 7. Perform priorities in the care of the medical vs. trauma patient.
- 8. Practice the chain of EMS communications.
- 9. Demonstrate documentation of prehospital patient care.





Unit Number	Unit Name	Unit Content	Time Needed
1.	Airway Evaluation	 Essential Parameters of Airway	20



		-Adjuncts to Aid in Confirming ET	
		Tube Placement	
		– Multi-Lumen Airways	
		 Pharmacological Adjuncts to Airway 	
		Management and	
		Ventilation	
		-Rapid Sequence Induction (RSI)	
		 Translaryngeal Cannula Ventilation 	
		- Necessary Equipment	
		- Technique	
		-Method of Removal	
		 Cricothyrotomy 	
		- Necessary Equipment	
		- Technique	
		- Method of Removal	
2.	Patient History	Components of the Patient History	12
		 Techniques of History Taking 	
		- Setting the Stage	
		-Learning about the Present Illness	
		-Chief Complaint	
		-History of Present Illness (HPI)	
		- Significant Past Medical History	
		- Current Health Status	
		- Getting More Information	
		 Special Challenges 	
		- Silence	
		- Overly Talkative Patientsetc.	
3.	Physical Examination	Examination Techniques	16
٠.		Examination TechniquesExamination Equipment	- 0
		General Approach to the Physical	
		Examination	
		Mental Status	
		Appearance and Behavior	
		Speech and Language	
		The state of the s	
		 Thought and Perceptions 	



	_		
		 Memory and Attention General Survey Weight Vital Signs Anatomical Regions Skin Head, Ears, Eyes, Nose, and Throat Chest Heart Abdomen Peripheral Vascular System The Physical Examination of Infants and Children Approaching the Pediatric Patient 	
		Approaching the Pediatric PatientPhysical Examination	
		 The Physical Examination of the 	
		Older Adult	
		- Patient History	
4.	Scene Size-Up	Physical Examination Scene Safety	16
7.	Scene Size-Up	Scene SafetyProtective Clothing	10
		Personal Protection from Blood-	
		Borne Pathogens	
		 Patient Assessment Priorities 	
		 Initial Assessment 	
		 General Impression of the Patient 	
		- Assess for Life-Threatening	
		Conditions • Focused History and Physical	
		 Focused History and Physical Examination—Medical Patients 	
		Responsive Medical Patient	
		Unresponsive Medical Patients	
		 Focused History and Physical 	
		Examination—Trauma Patients	
		 Reconsider the Mechanism of Injury 	

		 Rapid Trauma Physical Examination Trauma Patient with No Significant Mechanism of Injury Detailed Physical Examination Purpose General Approach Overview of the Detailed Physical Examination On-Going Assessment Purpose Components Reassess and Record Vital Signs Repeat Focused Assessment Regarding Patient Complaint or Injuries Assess Interventions. Care of Medical vs. Trauma Patients Medical Patients Trauma Patients 	
5.	Spectrum of Prehospital Care	 Life-Threatening and Non–Life-Threatening Situations Critical Thinking Process for Paramedics Field Application of Assessment-Based Patient Management Patient Acuity Spectrum Thinking under Pressure Putting It All Together The Six Rs 	12
6.	Phases of Communications during a Typical EMS Event	 Five Phases Role of Communications in EMS Role of Verbal ,Written ,and Electronic Communications 	12



جامعة البلغاء التطبيقية

		 Communications Systems Operation Modes Used for EMS Communications Components and Functions of Dispatch Communications Systems Regulation Procedures for EMS Communications General Guidelines for Radio Communications Relaying Patient Information
7.	Importance of Documentation	 General Considerations Narrative Elements of a Properly Written EMS Document Patient Refusal of Care and/or Transport Situations Involving Mass Casualties Consequences of Inappropriate Documentation Implications for Medical Care Legal Implications

Evaluation Strategies:

Exams		Percentage	Date
Exams	First Exam	20%	//
	Second Exam	20%	//
	Final Exam	50%	//
Homework and Projects		10%	
Discussions and lecture			
Presentations			

Teaching Methodology:

- 1. Demonstration and re-demonstration (Lab and or / clinical setting hospital.
- 2. Role-playing
- 3. Simulation
- 4. Utilize various audio-visual materials.
- 5. Video Films, Overhead project, models
- 6. (Field, Hospital and / or lab)

Text Books & References:

- 1. Mick, J., & Kim, M. (2001). Mosby's Paramedic Textbook (2nd ed.) Mosby, Inc. Missouri.
- 2. Daniel, L., Michael, F., Harvey, D., Robert, H., & David, B. (2002). Emergency Care (9th Ed. Military)





برنامج الممن الطبية المساعدة

Specialization	الإسعاف الفوري
Course Number	21113253
Course Title	Emergency Paramedicine 2
Credit Hours	(2)
Theoretical Hours	(2)
Practical Hours	(0)





جامعة البلقاء التطبيقية

Brief Course Description:

❖ This course with various medical emergencies will be presented. Description causes, complications, signs and symptoms, and prehospital management of patients with a diagnosis of: obstructive airway disease, pneumonia, adult respiratory distress syndrome, pulmonary thromboembolism, upper respiratory. Discussion risk factors and prevention strategies associated with cardiovascular disease and Describe prehospital assessment and management of patients with selected cardiovascular disorders based on knowledge of the pathophysiology of the illness, neurological disorders, disorders of the thyroid gland and Cushing's syndrome and Addison's disease, Identifying allergens associated with anaphylaxis, gastrointestinal (GI) disorders, signs and symptoms of renal failure, hematologic disorders, emergencies and high-altitude illness, and components of a behavioral emergency

Course Objectives:

- 1. Describe causes, complications, signs and symptoms, and prehospital management of patients with a diagnosis of: obstructive airway disease, pneumonia, adult respiratory distress syndrome, pulmonary thromboembolism, upper respiratory infection, spontaneous pneumothorax, hyperventilation syndrome, and lung cancer.
- 2. Identify risk factors and prevention strategies associated with cardiovascular disease and Describe prehospital assessment and management of patients with selected cardiovascular disorders based on knowledge of the pathophysiology of the illness.
- 2. Describe the pathophysiology, the signs and symptoms, and the specific management techniques for each of the following neurological disorders: coma, stroke and intracranial hemorrhage, seizure disorders, headache, brain neoplasm and brain abscess, and degenerative neurological diseases.
- 3. Discuss pathophysiology as a basis for key signs and symptoms, patient assessment, and patient management for disorders of the thyroid gland and Cushing's syndrome and Addison's disease.
- 4. Describe signs and symptoms and management of local allergic reactions based upon an understanding of the pathophysiology associated with this condition.
- 5. Identify allergens associated with anaphylaxis.
- 6. Describe general prehospital management techniques for the patient with abdominal pain.
- 7. Describe signs and symptoms, complications, and prehospital management for the following gastrointestinal (GI) disorders: gastroenteritis, gastritis, colitis, diverticulosis,



جامعة البلغاء التطبيقية

appendicitis, peptic ulcer disease, bowel obstruction, Crohn's disease, pancreatitis, esophagogastric varices, hemorrhoids, cholecystitis, acute hepatitis.

- 8. Describe the signs and symptoms of renal failure.
- 9. Describe dialysis and emergent conditions associated with renal failure, including prehospital management.
- 10. Identify general management principles for the most common toxic syndromes based on a knowledge of the characteristic physical findings associated with each syndrome.
- 11. Outline general assessment and management of patients with hematologic disorders.
- 12. Discuss the risk factors, pathophysiology, assessment findings, and management of diving emergencies and high-altitude illness.
- 13. Discuss the paramedic's role in preventing disease transmission.
- 14. Describe the components of a behavioral emergency.
- 15. Describe specific prehospital measures to preserve evidence in sexual assault cases.
- 16. Describe the role of the paramedic during normal labor and delivery.





جامعة البلقاء التطبيقية

Detailed Course Description:

Unit Number	Unit name	Unit Content	Time Needed
1.	Pulmonary	 Introduction Obstructive Airway Disease Pneumonia Adult Respiratory Distress Syndrome Pulmonary Thromboembolism (Pulmonary Embolism or PE) Upper Respiratory Infection Spontaneous Pneumothorax Hyperventilation Syndrome Lung Cancer 	2
2.	Cardiology	 Section One Introduction Risk Factors and Prevention Strategies Section Two: Electrophysiology of the Heart Groups of Cells within the Myocardium Important for Cardiac Function Electrical Activity of Cardiac Cells and Membrane Potentials Cell Excitability Electrical Conduction System of the Heart Section Three: Assessment of the Cardiac Patient Assessment Section Four: ECG Monitoring Introduction to ECG Monitoring Relationship of ECG to Electrical Activity Section Five: ECG Interpretation 	3

		C. D. d. A. I.	1
		- Steps in Rhythm Analysis	
		Section Six: Introduction to Dysrhythmias	
		- Classifications	
		ClassificationsDysrhythmias Originating in the SA	
		Node	
		Dysrhythmias Originating in the Atria	
		 Dysrhythmias Sustained or Originating 	
		in the AV Junction	
		 Dysrhythmias Originating in the 	
		Ventricles	
		 Dysrhythmias That Are Disorders of 	
		Conduction	
		 Ventricular Conduction Disturbances 	
		Pulseless Electrical Activity	
		- Preexcitation Syndromes	
		 Section Seven: Specific Cardiovascular Diseases 	
		Pathophysiology and Management of	
		Cardiovascular Disease	
		Cardio vascatar Discuse	
		■ Section Eight: Techniques of	
		Managing Cardiac Emergencies	
		 Basic Cardiac Life Support 	
		Monitor-Defibrillators	
		- Defibrillation	
		 Implantable Cardioverter-Defibrillators 	
		 Synchronized Cardioversion 	
		 Transcutaneous Cardiac Pacing 	
		Cardiac Arrest and Sudden Death	
3.	Neurology	Pathophysiology and Management of Service CNS Discondumn	2
		Specific CNS Disorders	
4.	Edocrinology	Diabetes Mellitus	2
		 Thyrotoxicosis 	
		■ Myxedema	



		Cushing's SyndromeAddison's Disease	
5.	Allergies and anaphylaxis	 Antigen-Antibody Reaction Immune Response Allergic Reaction Anaphylaxis Prevention and Patient Education 	2
6.	First exam.		
7.	Gastroenterology	 Gastrointestinal Anatomy and Physiology Assessment of the Patient with Acute Abdominal Pain Management of Acute Abdominal Pain Specific Abdominal Emergencies 	2
8.	Urology	 Anatomy and Physiology Review History and Physical Examination for Patients with Genitourinary Disorders Renal Failure 	2
9.	Toxicology	 Section One: Poisonings Overview Poison Control Centers General Guidelines for Managing a Poisoned Patient Poisoning by Ingestion Poisoning by Inhalation Poisoning by Injection Poisoning by Absorption Section Two: Drug Abuse Introduction Toxic Effects of Drugs Section Three: Alcoholism Introduction 	2

		 Alcohol and Related Illness Continue 	
		To Be a Major Problem in the United	
		States	
		 Alcohol Dependence 	
		– Ethanol	
		 Medical Consequences of Chronic 	
		Alcohol Ingestion	
		 Alcohol Emergencies 	
		 Section Four: Managing Toxic 	
		Syndromes	
		 General Management Principles for 	
		Toxic Syndromes	
10.	Hematology	Blood and Blood Components	2
10.		 Specific Blood Disorders 	-
		■ General Assessment and	
		Management of Patients With	
		Hematologic Disorders	
11.	Environmental	■ Thermoregulation	2
	conditions	Hyperthermia	
		Hypothermia	
		Frostbite	
		Near-Drowning	
		 Diving Emergencies High-Altitude 	
		Illness	
12.	Second exam.		
13.	Infectious and	 Public Health Principles Relative to 	3
	communicable	Infectious Diseases	
	diseases	 Stages of Infectious Disease 	
		• HIV	
		Hepatitis	
		 Tuberculosis 	
		Meningococcal Meningitis	
		 Pneumonia 	
		• Tetanus	
		 Viral Diseases of Childhood 	
		 Other Viral Diseases 	



جامعة البلغاء التطبيقية

		 Sexually Transmitted Diseases Reporting an Exposure to an Infectious/Communicable Disease Paramedic's Role in Preventing Disease Transmission 	
14.	Behavioral and psychiatric disorders	 Introduction Understanding Behavioral Emergencies Assessment and Management of Behavioral Emergencies Specific Behavioral/Psychiatric Disorders Special Behavioral Problems 	2
15.	Gynecology	 Female Reproductive System Menstruation and Ovulation Specific Gynecological Emergencies General Principles of Assessment and Management. 	2
16.	Obstetrics	 Normal Events of Pregnancy Specialized Structures of Pregnancy Fetal Growth and Development Assessment of the Patient Complications of Pregnancy Delivery Complications 	2

Evaluation Strategies:

valuation Strategies.				
Exams		Percentage	Date	
Exams	First Exam	20%	//	
	Second Exam	20%	//	
	Final Exam	50%	//	
Homework and Projects		10%		
Discussions and lecture				
Presentations		Shirt and	are	

Teaching Methodology:

- 1. Interactive lecture for didactic material
- 2. Small group for discussing
- 3. Role-playing
- 4. Seminars and student presentations
- 5. Overhead projector
- 6. Data show
- 7. Handouts
- 8. Scenarios

Text Books & References:

- Mick, J., & Kim, M. (2001). <u>Mosby's Paramedic Textbook (2nd ed.)</u> Mosby, Inc. Missouri.
- 2. Daniel, L., Michael, F., Harvey, D., Robert, H., & David, B. (2002). Emergency





برنامج الممن الطبية المساعدة

Specialization	الإسعاف الفوري
Course Number	21113254
Course Title	Emergency Paramedicine 2/ Practical
Credit Hours	(2)
Theoretical Hours	(0)
Practical Hours	(6)



Brief Course Description:

❖ This course will demonstrate various medical emergencies with physical exam findings demonstrated interactively thru hands-on situational exercises. Case presentations will be significant demonstrations and will exercise skills and knowledge of differing styles in reporting of clinical information both in verbal and written forms. Patient Demographics in relation to common disease processes will be included along with Childbirth and OB/GYN emergencies, Infectious Disease and Blood-borne Pathogens. Diabetes Mellitus, Congenital abnormalities and chromosomal malformations will be included in this course, Assessment Based Management, clinical Decision-making.

Course Objectives:

This course aims at:

- 1. Demonstrate skills of prehospital management of patients with a diagnosis of: respiratory medical diseases.
- 2. Perform prehospital assessment and management of patients with selected cardiovascular disorders.
- 3. Practice the specific management techniques for the neurological disorders.
- 4. Demonstrate general prehospital management techniques for the patient with abdominal pain.
- 5. Perform prehospital management for the gastrointestinal (GI) disorders.
- 6. Assess emergent conditions associated with renal failure, including prehospital management.
- 7. Practice general assessment and management of patients with hematologic disorders.
- 8. Perform the paramedic's role in preventing disease transmission.





جامعة البلقاء التطبيقية

Detailed Course Description:

Unit Number	Unit name	Unit Content	Time Needed
1.	Pulmonary	 Assessment and Management of patients with Obstructive Airway Disease Pulmonary Thromboembolism (Pulmonary Embolism or PE) Upper Respiratory Infection Spontaneous Pneumothorax 	5
2.	Neurology	 Assessment and Management of Specific CNS Disorders 	4
3.	Edocrinology	 Assessment and Management of Diabetes Mellitus 	3
4.	Allergies and anaphylaxis	 Assessment and Management of Allergic Reaction & Anaphylaxis 	3
5.	Gastroenterology	 Assessment of the Patient with Acute Abdominal Pain Management of Acute Abdominal Pain Specific Abdominal Emergencies 	3
6.	Urology	 Assessment and Management of Genitourinary Disorders History and Physical Examination for Patients with Genitourinary Disorders 	4
7.	Toxicology	 Assessment and Management of Poisonings Assessment and Management of Drug Abuse Assessment and Management of Alcoholism Alcohol Emergencies 	7



جامعة البلغاء التطبيغية

8.	Hematology	 Specific Blood Disorders General Assessment and Management of Patients With Hematologic Disorders 	4
9.	Environmental conditions	 General Assessment and Management of Patients With 1.Hyperthermia Hypothermia Frostbite Near-Drowning 	4
10.	Infectious and communicable diseases	 Paramedic's Role in Preventing Disease Transmission 	4
11.	Behavioral and psychiatric disorders	 Assessment and Management of Behavioral Emergencies 	5
12.	Gynecology	 General Principles of Assessment and Management 	7
13.	Obstetrics	 Normal Events of Pregnancy Specialized Structures of Pregnancy Fetal Growth and Development Assessment of the Patient Complications of Pregnancy Delivery Complications 	12

Evaluation Strategies:

valuation Strategies.				
Exams		Percentage	Date	
Exams	First Exam	20%	//	
	Second Exam	20%	//	
	Final Exam	50%	//	
Homework and Projects		10%		
Discussions and lecture			***************************************	
Presentations		ALIENS TO	ال يالد	

Teaching Methodology:

- 1. Demonstration and re-demonstration (Lab and or / clinical setting hospital.
- 2. Role-Modeling
- 3. Simulation.
- 4. Lab activities
- 5. Scenarios
- 6. Models

Text Books & References:

- 1. Daniel, L., Michael, F., Harvey, D., Robert, H., & David, B. (2002). <u>Emergency Care</u>. (9th ed.). BRADY / PRENTICE HALL HEALTH.
- 2. Mick, J., & Kim, M. (2001). Mosby's Paramedic Textbook (2nd ed.) Mosby, Inc. Missouri.





برنامج الممن الطبية المساعدة

Specialization	الإسعاف الفوري
Course Number	21113261
Course Title	Pre-Hospital Trauma Life Support (PHTLS)
Credit Hours	(2)
Theoretical Hours	(2)
Practical Hours	(0)





Brief Course Description:

❖ Principles of Trauma Assessment and treatment priorities will be explored in this course. Kinematics of Trauma, Injury Prevention, Mass Casualty Incidents (MCI), Military Medicine and Special considerations for Elderly and Pediatric populations will be guided by recognized Standards.

Course Objectives:

This course aims at:

- 1. The student will be able to actively recognize and participate in Injury Prevention practices.
- 2. The student will be knowledgeable in physical forces and body system limitations involved in traumatic injuries.
- 3. The student will be able to recognize Mechanisms of Injury, patterns in energy forces contributing to bodily injury and human systems affected.
- 4. The student will be knowledgeable in Primary and Secondary Injury causes and treatment.
- 1. The student will be knowledgeable in Trauma System design, patient priorities in triage and medical management of traumatic injury based upon body systems affected.





جامعة البلقاء التطبيقية

Detailed Course Description:

Unit	urse Description:	II ' C	Time
Number	Unit name	Unit Content	Needed
1.	Trauma systems	 Overview 	2
	and mechanism of	 Trends in Trauma Deaths 	
	injury	 Prevention of Trauma Deaths 	
		Trauma Systems	
		 Components of a Comprehensive 	
		Trauma System	
		Trauma Centers	
		 Transport Considerations 	
		 Section One: Kinematics 	
		Energy	
		Introduction	
		Physical Laws	
		 Section Two: Blunt Trauma 	
		– Blunt Trauma	
		Overview	
		 Motor Vehicle Collision 	
		Restraints	
		Introduction	
		Lap Belts	
		 Diagonal Shoulder Straps 	
		Airbags	
		 Child Safety Seats 	
		 Organ Collision Injuries 	
		 Deceleration Injuries 	
		 Compression Injuries 	
		 Other Motorized Vehicular 	
		Collisions	
		 Overview 	
		Motorcycle Collision	
		■ ATVs	
		 Personal Protective Equipment 	
		Pedestrian Injuries	
		Adult Pedestrian	



		 Child Pedestrian Other Causes of Blunt Trauma Sports Injuries Blast Injuries Vertical Falls Section Three: Penetrating Trauma Penetrating Trauma Introduction Cavitation Ballistics 	
2.	Hemorrhage and shock	 Hemorrhage Overview External Hemorrhage Internal Hemorrhage Physiological Response to Hemorrhage Defining Shock Introduction Tissue Oxygenation Overview Heart Vasculature Lungs The Body as a Container A Healthy Body Is a Smooth-Flowing Delivery System Inside a Container The External Size of the Container of Any Human Body Is Relatively Constant Blood and its Components Blood Volume Plasma Red Blood Cells (Erythrocytes or 	2

RBCs) White Blood Cells (Leukocytes or WBCs) Platelets Capillary-Cellular Relationship in Shock Stage 1: Vasoconstriction Stage 2: Capillary and Venule Opening Stage 3: Disseminated Intravascular Coagulation Stage 4: Multiple Organ Failure Classifications of Shock Introduction Hypovolemic Shock Cardiogenic Shock Neurogenic Shock Neurogenic Shock Neurogenic Shock Septic Shock Stages of Shock Hypoperfusion and Ifts Associated Anaerobic Metabolism may be Categorized by Stages of the Body's Response to the Shock Syndrome
Hypovolemic Shock
 Neurogenic Shock (Spinal Cord
,
2 7
-
 Response to the Shock Syndrome Compensated Shock
 Uncompensated Shock
 Irreversible Shock
■ Variations in Physiological
Response to Shock
Management and Treatment Plan for
the Shock Patient
• Evaluation of the Patient in Shock
must be Directed at Assessing
Oxygenation and Perfusion of the
Various Body Organs

		 Initial Assessment Detailed Physical Examination Resuscitation Integration of Patient Assessment and the Treatment Plan The Goals of Prehospital Care for the Patient with Severe Hemorrhage or Shock Include the Following Follow Guidelines Established by Local Protocol and Medical Direction in Determining the Appropriate Prehospital Level of Care for Patients and in Identifying the Appropriate Medical Facility for Patient Transport. 	
3.	Soft tissue trauma	 Anatomy and Physiology Skin Epidermis Dermis Subcutaneous Layer (Superficial Fascia) Deep Fascia Pathophysiology Surface Trauma Hemostasis of Wound Healing Inflammatory Response Alterations of Wound Healing Pathophysiology and Assessment of Soft Tissue Injuries Overview Closed Wounds Open Wounds Crush Injury Blast Injuries 	2



■ Management Principles for Soft
Tissue Injuries
Scene Survey
 Treatment Priorities
Hemorrhage and Control of
Bleeding
 Types of Bleeding
 Direct Pressure
– Elevation
Pressure Point
 Immobilization by Splinting
 Pneumatic Pressure Devices
- Tourniquet
 Dressing Materials Used with Soft
Tissue Trauma
 General Categories of Dressings
- Bandages
 Complications of Improperly
Applied Dressings and Bandages
 Basic Concepts of Open Wound
Dressings
 Management of Specific Soft Tissue
Injuries Not Requiring Closure
 Paramedics Encounter Many Open
Wounds Not Requiring Closure or
Physician Evaluation
 Dressings and Bandages
- Evaluation
- Wound Infection
- Assessment of Wound Healing
• Special Considerations for Soft
Tissue Injuries
- Assessment Priorities
Penetrating Chest or Abdominal
Injury



		Axulaion	
		- Avulsion	
		- Amputations	
		- Crush Syndrome	2
3.	Burns	Incidence and Patterns of Burn	2
		Injury	
		 Devastating Form of Trauma 	
		- Major Sources of Burns	
		 Pathophysiology of Thermal Burn 	
		Injury	
		- Introduction	
		 Local Response to Burn Injury 	
		Systemic Response to Burn Injury	
		- Classifications of Burn Injury	
		Pathophysiology of Burn Shock	
		- Burn Shock Overview	
		- Fluid Replacement	
		 Assessment of the Burn Patient 	
		- Introduction	
		- Initial Assessment	
		- History	
		- Physical Examination	
		• General Principles in Burn	
		Management Cools of Probagaital Management	
		- Goals of Prehospital Management	
		- Stopping the Burning Process	
		Airway, Oxygen, and Ventilation Ginarlation	
		- Circulation	
		 Special Considerations Inhalation Pure Injury 	
		Inhalation Burn InjuryIntroduction	
		PathophysiologyChemical Burn Injury	
		Chemical Burn InjuryIntroduction	
		With the second	(
		- Assessment	
		 Management 	

		Introduction Characteristics of Electricity Types of Electrical Injury Effects of Electrical Injury Assessment and Management Lightning Injury	
4. First	exam.		
	nd facial	Introduction	2
	uma –	- Statistics	<u>~</u>
	_	Maxillofacial Injury	
	-	Soft Tissue Injuries	
	-	Facial Fractures	
	-	Nasal and Ear Foreign Bodies	
	-	Ear, Eye, and Dentar Trauma	
	-	Overview	
		Ear Trauma	
		Eye Trauma Dental Trauma	
	-	A CONTRACTOR OF THE STATE OF TH	(i
	-	- Overview	

_	T		1
		 Evaluation Soft Tissue Injuries Head Trauma Anatomy and Physiology of the Head and Brain Soft Tissue Injuries to the Scalp Skull Fractures Cranial Nerve Injuries Brain Trauma Overview Mild Diffuse Injury (Concussion) Moderate Diffuse Injury Diffuse Axonal Injury Focal Injury Injury Rating Systems Glasgow Coma Scale Trauma Score Revised Trauma Score Pediatric Trauma Score 	
6.	Spinal trauma	 Incidence, Morbidity, and Mortality Traditional Spinal Assessment Criteria Introduction Mechanism of Injury/Nature of Injury Review of Spinal Anatomy and Physiology Spinal Cord Meningeal Coverings Peripheral Nervous System General Assessment of Spinal Injury Introduction Axial Loading Flexion, Hyperextension, and 	2



Hyperrotation
 Lateral Bending
– Distraction
 Less Common Mechanisms of Spinal
Injury
 Classifications of Spinal Injury
- Overview
 Sprains and Strains
 Fractures and Dislocations
 Sacral and Coccygeal Fractures
- Cord Injuries
 Evaluation and Assessment of
Spinal Cord Injury
- Overview
Motor Findings
 Sensory Findings
- Reflex Responses
 Other Methods of Evaluation
 General Management of Spinal
Injuries
- Overview
 Spinal Stabilization/Immobilization
Techniques
- Helmet Issues
Spinal Immobilization in Diving
Accidents
Cord Injury Presentations
- Spinal Shock
 Neurogenic Hypotension
Autonomic Hyperreflexia Syndrome
 Nontraumatic Spinal Conditions
Low Back Pain
Degenerative Disk Disease
- Spondylosis
Herniated Intervertebral Disk



		 Spinal Cord Tumors Assessment and Management of Nontraumatic Spinal Conditions Assessment Management 	
7.	Thoracic trauma	 Introduction Epidemiology Mechanism of Injury Anatomy and Physiology Review of the Thorax General System Pathophysiology, Assessment, and Management of Thoracic Trauma Skeletal Injury Clavicular Fractures Rib Fractures Flail Chest Sternal Fractures Pulmonary Injury Closed (Simple) Pneumothorax Open ("Sucking Chest Wound") Pneumothorax Tension Pneumothorax Hemothorax Pulmonary Contusion Traumatic Asphyxia Heart and Great Vessel Injury Myocardial Contusion (Blunt Myocardial Injury) Pericardial Tamponade Myocardial Rupture Traumatic Aortic Rupture Diaphragmatic Rupture Incidence 	



		Morbidity/Mortality	
		 Anatomy Review 	
		Pathophysiology	
		 Assessment Findings 	
		Management	
		Esophageal Injury	
		Incidence	
		Morbidity/Mortality	
		Pathophysiology	
		 Assessment Findings 	
		Management	
		 Tracheobronchial Injuries 	
		Incidence	
		Morbidity/Mortality	
		Pathophysiology	
		 Assessment Findings 	
		Management	
8.	Abdominal trauma	Introduction	2
		Epidemiology	
		 Abdominal Trauma 	
		Anatomy Review	
		 Mechanisms of Abdominal Injury 	
		– Blunt Trauma	
		 Penetrating Trauma 	
		 General Pathophysiology 	
		 Specific Abdominal Injuries 	
		 Solid Organ Injury 	
		 Hollow Organ Injury 	
		 Retroperitoneal Organ Injury 	
		 Pelvic Organ Injury 	
		 Vascular Structure Injury 	
		 Intraabdominal Arterial and Venous 	
		Injuries	į.
		Management/Treatment PlanPelvic Fractures	
	•		



		- Epidemiology	
		Pathophysiology	
		- Assessment	
		Management	
		 Other Related Abdominal Injuries 	
		Abdominal Wall Injuries	
		- Abdominal wan injuries - Assessment	
		AssessmentFocused History and Physical	
		Examination	
		Comprehensive Assessment	
		Completionsive AssessmentDifferential Diagnosis and Continued	
		Management	
		Management	
		Management/Treatment Plan	
		ivianagement/ freatment fran	
9.	Second exam.		
10.	Musculo skeletal	Introduction	2
	trauma	Epidemiology	
		 Review of Musculoskeletal Anatomy 	
		and Physiology	
		 Classification of Musculoskeleta 	
		Injuries	
		- Introduction	
		- Fractures	
		– Sprains	
		– Strains	
		 Joint Dislocations 	
		 Inflammatory and Degenerative 	
		Conditions	
		- Bursitis	
		- Tendonitis	
		- Arthritis	
		 Signs and Symptoms of Extremity 	y .
		Trauma	
		 Patient Presentation 	

		 Assessment General Principles of Splinting Upper-Extremity Injuries Shoulder Injury Humerus Injury Elbow Injury Radius, Ulna, or Wrist Injury Hand (Metacarpal) Injury Finger (Phalangeal) Injury Lower-Extremity Injuries Pelvic Fracture Hip Injury Femur Injury Knee and Patella Injury Tibia and Fibula Injury Foot and Ankle Injury Phalanx Injury Open Fractures Overview Straightening Angulated Fractures and Reducing Dislocations Method Specific Techniques for Specific Joints Referral of Patients with Minor Musculoskeletal Injury Some Patients with Minor Musculoskeletal Injury (e.g., Minor Sprain) Do not Require EMS Transport 	
11.	Prehospital trauma life support (phtls) course	 Assessment and Management Airway Management and Ventilation Shock and Fluid Resuscitation Trauma in Human Systems – Head, Spine, Thoracic, Abdominal, Musculoskeletal 	13



جامعة البلقاء التطبيقية

Evaluation Strategies:

Evaluation Strategiest			
Exams		Percentage	Date
Exams	First Exam	20%	//
	Second Exam	20%	//
	Final Exam	50%	//
Homework and Projects		10%	
Discussions and lecture			
Presentations			

Teaching Methodology:

- 1. Interactive Lecture and situational Discussion
- 2. Trauma Presentations
- 3. Leadership Practice in Team Patient Care
- 4. Small Group Assignments and Scenario building

Text Books & References:

- 1. Mick, J., & Kim, M. (2001). <u>Mosby's Paramedic Textbook</u> (Rev. 2nd Ed.) Mosby, Inc.Missouri. USA
- 2. American College of Surgeons Committee on Trauma. (1997). Advanced Trauma Life Support. First Impression. USA.
- 3. Campbell, John E. et al (1998). Basic Trauma Life Support (3rd Ed. Update) PRENTICE HALL HEALTH, USA.
- 4. Bamonti et al (2003). PHTLS Basic And Advanced Prehospital Trauma Life Support (5th Ed.) Mosby, Inc. USA





برنامج الممن الطبية المساعدة

Specialization	الإسعاف الفوري
Course Number	21113262
Course Title	Pre-Hospital Trauma Life Support (PHTLS)/ Practical
Credit Hours	(2)
Theoretical Hours	(0)
Practical Hours	(6)





Brief Course Description:

❖ Trauma assessment and treatment priorities are essential skills to be learned through individual and small group practice. Scenarios will be executed and group critique will enhance the Learners' knowledge. Additionally, assignments in writing scenarios and evaluation techniques will be mandatory. Skills will be actively pursued in varying situations and environmental conditions.

This specialty program will emphasize the rapid assessment and life-threatening interventional skills in a scenario based venue. Critical thinking skills will be sharpened by practical scenarios conducted in out-of-hospital settings. Alternative Invasive techniques such as Cricothyrotomy, Pericardiocentesis, Needle Thorocostomy and Chest Tube placement will be introduced. Basic Radiographic interpretation of trauma related injuries will be presented with identification of common fracture sites associated with varying mechanisms of injury, cervical compromise, Endotracheal Intubation verification as well as pneumo-, hemo-pneumo and atelectasis recognition. Specific Specialized Rescue situations will be addressed. Burns, Hypothermia and Hyperthermia treatment modalities will be included in this course

Course Objectives:

This course aims at:

- 1. The student will participate in Injury Prevention practices.
- 2. The student will demonstrate proficiency in Rapid Trauma Assessment and management practices (e.g. Scene safety, projecting potential injuries based on mechanism of injury).
- 3. The student will be able to verbalize Mechanisms of Injury and patterns in energy forces contributing to suspected bodily injuries and provide appropriate treatment accordingly.
- 4. The student will demonstrate knowledge in Trauma System design by providing appropriate transport decisions. Students will exhibit triage and medical management capabilities.





جامعة البلقاء التطبيقية

Detailed Course Description:

Detailed Course Description: Unit Time				
	Unit name	Unit Content		
1.	Trauma systems and mechanism of injury	 Blunt Trauma Blunt Trauma Motor Vehicle Collision Restraints Lap Belts Diagonal Shoulder Straps Airbags Child Safety Seats Other Motorized Vehicular Collisions Motorcycle Collision Personal Protective Equipment Other Causes of Blunt Trauma Sports Injuries Blast Injuries Vertical Falls Penetrating Trauma Penetrating Trauma Cavitation Ballistics 	Needed 4	
2.	Hemorrhage and shock	 Assessment & Management of Patients with Hemorrhage Assessment of Patients with Shock Management and Treatment Plan for the Shock Patient Initial Assessment Detailed Physical Examination Resuscitation The Goals of Prehospital Care for 	5	



		the Patient with Severe Hemorrhage or Shock Include the Following - Follow Guidelines Established by Local Protocol and Medical Direction in Determining the Appropriate Prehospital Level of Care for Patients and in Identifying the Appropriate Medical Facility for Patient Transport.	
3.	Soft tissue trauma	 Assessment & Management Principles for Soft Tissue Injuries Dressing Materials Used with Soft Tissue Trauma General Categories of Dressings Bandages Complications of Improperly Applied Dressings and Bandages Basic Concepts of Open Wound Dressings Special Considerations for Soft Tissue Injuries Assessment Priorities Penetrating Chest or Abdominal Injury Avulsion Amputations 	5
4.	Burns	 Assessment of the Burn Patient Introduction Initial Assessment History Physical Examination General Principles in Burn Management 	5



		Stopping the Burning ProcessAirway, Oxygen, and VentilationCirculation	
5.	Head and facial trauma	 Assessment & Management of the HEAD AND FACIAL TRAUMA. 	4
6.	Spinal trauma	 General Assessment of Spinal Injury Axial Loading Flexion, Hyperextension, and Hyperrotation Lateral Bending Distraction Less Common Mechanisms of Spinal Injury Classifications of Spinal Injury Sprains and Strains Fractures and Dislocations Sacral and Coccygeal Fractures Cord Injuries Evaluation and Assessment of Spinal Cord Injury Motor Findings Sensory Findings Reflex Responses Other Methods of Evaluation Assessment and Management of Non-traumatic Spinal Conditions Assessment Management 	6
7.	Thoracic trauma	 Assessment and Management of THORACIC TRAUMA 	4
8.	Abdominal trauma	 Mechanisms of Abdominal Injury Blunt Trauma Penetrating Trauma Assessment 	6



9.	Musculo skeletal trauma	 Focused History and Physical Examination Comprehensive Assessment Differential Diagnosis and Continued Management Management Management/Treatment Plan. Assessment General Principles of Splinting Upper-Extremity Injuries 	6
		 Shoulder Injury Humerus Injury Elbow Injury Radius, Ulna, or Wrist Injury Hand (Metacarpal) Injury Finger (Phalangeal) Injury Lower-Extremity Injuries Pelvic Fracture Hip Injury Femur Injury Knee and Patella Injury Tibia and Fibula Injury Foot and Ankle Injury Phalanx Injury Open Fractures Straightening Angulated Fractures and Reducing Dislocations Specific Techniques for Specific Joints 	
10.	Prehospital trauma life support (phtls) course	 -Assessment and Management -Airway Management and Ventilation -Shock and Fluid Resuscitation -Trauma in Human Systems – Head, Spine, Thoracic, Abdominal, Musculoskeletal 	19



جامعة البلقاء التطبيقية

Evaluation Strategies:

Evaluation Strategies.			
Exams		Percentage	Date
Exams	First Exam	20%	//
	Second Exam	20%	//
	Final Exam	50%	//
Homework and Projects		10%	
Discussions and lecture			
Presentations			

Teaching Methodology:

❖ Discussion, Demonstration and return demonstration of Trauma treatment skills (e.g. Spinal Immobilization, Bodily Extrication Techniques, Interactive and situational Arrhythmia Stations, Leadership and Team role-playing of scenario based simulations

Text Books & References:

- 1. Mick, J., & Kim, M. (2001). <u>Mosby's Paramedic Textbook</u> (Rev. 2nd Ed.) Mosby, Inc.Missouri. USA
- 2. American College of Surgeons Committee on Trauma. (1997). Advanced Trauma Life Support. First Impression. USA.
- 3. Campbell, John E. et al (1998). Basic Trauma Life Support (3rd Ed. Update) PRENTICE HALL HEALTH, USA.
- 4. Bamonti et al (2003). PHTLS Basic And Advanced Prehospital Trauma Life Support (5th Ed.) Mosby, Inc. USA





برنامج الممن الطبية المساعدة

Specialization	الإسعاف الفوري
Course Number	21113200
Course Title	Field Training
Credit Hours	(3)
Theoretical Hours	(0)
Practical Hours	(280) training hours





Brief Course Description:

This field training course provide an opportunity to develop and apply clinical knowledge and skills to the actual treatment of emergency patients. As students are instructed in the theoretical practice of emergency medicine, they participate in various supervised clinical experiences. These experiences are designed to refine the skills involved in patient care. During field training, students have an opportunity to rotate through RMS hospitals. The field training enables students to apply their knowledge and clinical skills in the out-of-hospital environment. Students are assigned an experienced paramedic who will serve as a preceptor and mentor during each term.

