

## Engineering Program

|                   |                              |
|-------------------|------------------------------|
| Specialization    | Medical Equipment Technology |
| Course Number     | 020800111                    |
| Course Title      | First Aids                   |
| Credit Hours      | 3                            |
| Theoretical Hours | 2                            |
| Practical Hours   | 3                            |

### Brief Course Description:

- ❖ course is designed to introduce the student into emergency medical care providing him with the knowledge and skills that make him able to do patient assessment and choose first Aid priorities and the more suitable instruments which allow him to manage Airway Obstruction, shock and bleeding, soft-Tissue injuries (wounds), soft tissue Injuries (Burns) trauma and fractures, medical emergency (Allergies Reaction) and medical emergency (Poisoning) and, environmental emergency, and altered mental status, It also introduces him to the skills needed for doing CPR

### Course Objectives:

At the end of this course student will be able to:

1. The general rules, ethics and basis of First Aid.
2. How to examine and assess the causality safely and effectively.
3. How to deal with common first Aid Emergency.
4. How to assess many varying emergency situations to determine what patient care is needed and to provide the necessary care.
5. How / CPR is done safely.

Detailed Course Description:

| Unit Number | Unit Name                       | Unit Content  | Time Needed |
|-------------|---------------------------------|---|-------------|
| 1           | Introduction                    | <ul style="list-style-type: none"> <li>▪ Introduction to emergency medical care.</li> <li>▪ Definition of first aid.</li> <li>▪ Equipment and supplies.</li> <li>▪ Medical, legal and ethical.</li> </ul>   | 3           |
| 2           | Patient assessment              | <ul style="list-style-type: none"> <li>▪ Primary survey.</li> <li>▪ Secondary survey for patient (trauma).</li> <li>▪ Baseline vital signs</li> </ul>   | 3           |
| 3           | The air way                     | <ul style="list-style-type: none"> <li>▪ Oxygen sources.</li> <li>▪ Equipment for oxygen delivery.</li> <li>▪ Masks.</li> <li>▪ Airway accessories.</li> <li>▪ Suction.</li> </ul>  | 3           |
| 4           | Shock and bleeding              | <ul style="list-style-type: none"> <li>▪ Definition.</li> <li>▪ Assessing shock.</li> <li>▪ Causes, classification.</li> <li>▪ Emergency care for shock.</li> <li>▪ Types of bleeding.</li> <li>▪ Emergency care for bleeding.</li> <li>▪ Bleeding from (ears, nose, and mouth)and emergency care.</li> </ul>                             | 3           |
| 5           | Soft – Tissue Injuries (wounds) | <ul style="list-style-type: none"> <li>▪ Definition.</li> <li>▪ Closed injuries.</li> <li>▪ Open injuries.</li> <li>▪ Emergency for soft-tissue injuries(dressing and bandages).</li> </ul>   | 3           |
| 6           | Soft tissue injuries (burns)    | <ul style="list-style-type: none"> <li>▪ Definition. Classification, and Causes</li> <li>▪ Severity of Burns.</li> <li>▪ Emergency medical Care for.</li> </ul>   | 3           |
| 7           | Trauma And Fractures            | <ul style="list-style-type: none"> <li>▪ Fractures and Dislocation, Causes and Diagnosis.</li> <li>▪ Emergency Care for patients with Fractures.</li> <li>▪ Splinting, Principles of splinting, Equipments.</li> <li>▪ Spinal cord injury Assessment Signs and Symptoms, Emergency Medical Care of the Spine – Injured Patient</li> </ul> | 3           |

|    |                                      |   |   |
|----|--------------------------------------|---|---|
| 8  | Medical<br>Emergency<br>( poisoning  | <ul style="list-style-type: none"> <li>▪ Assessment of allergies Reactions.</li> <li>▪ Cause, signs and symptoms.</li> <li>▪ Emergency medial care for patients with Allergies Reaction</li> </ul>                      | 3 |
| 9  | Medical<br>Emergency<br>(poisoning ) | <ul style="list-style-type: none"> <li>▪ History of poisoning.</li> <li>▪ Types and signs and symptoms.</li> <li>▪ Use of activated charcoal</li> </ul>   | 3 |
| 10 | Environmental<br>Emergency           | <ul style="list-style-type: none"> <li>▪ Heat stroke, Heat Exhaustion, Heat cramps (Definition, Diagnosis, and Management).</li> <li>▪ Hypothermia (Signs and Symptoms, Emergency care)</li> <li>▪ Drowning.</li> </ul> | 3 |
| 11 | Altered Mental<br>Status             | <ul style="list-style-type: none"> <li>▪ Diabetic Emergency.</li> <li>▪ Seizures.</li> <li>▪ Emergency care of patients with Altered Mental status</li> </ul>   | 3 |
| 12 | Airway<br>Obstruction                | <ul style="list-style-type: none"> <li>▪ Choking – Heimlich Manoeuvre (Adults, Children)</li> <li>▪ Choking.</li> </ul>   | 3 |
| 13 | CPR                                  | <ul style="list-style-type: none"> <li>▪ CPR (Adults, Children)</li> <li>▪ CPR (Infants)</li> </ul>   | 3 |
| 14 | First Aid<br>priorities              | <ul style="list-style-type: none"> <li>▪ Case classification &amp; triage</li> </ul>  | 3 |

Evaluation Strategies:

| Exams                                 |               | Percentage | Date       |
|---------------------------------------|---------------|------------|------------|
| Exams                                 | Med-Term Exam | 40%        | --/--/---- |
|                                       | Final Exam    | 50%        | --/--/---- |
|                                       |               |            | --/--/---- |
| Homework and Projects                 |               | 10%        |            |
| Discussions and lecture presentations |               |            |            |

Teaching Methodology:

- ❖ Lectures
- ❖ Video Lectures

Text Books & References:

Text Book:

1. First Aid. Taking Action MCGRAWII, NSC, 2007.
2. First Aid. CPR And AED, JONES AND BARTLETT, Thygerson, 2005.
3. First Aid. CPR, And AED Essentials. 41, AMERICAN COLLEGE OF. EMERG. Phy, 2005.
4. Airway Management Paramedic, Jones And Bartlett, Margolis, 2004
5. First Aid Manual, DK PUB, 2002