

## Foundation Courses

First Academic Year (level 1)

First Term:

Course	Code	Credit Hours	Contact Hours				Pre-requisites
			Lecture	Clinical	Practical	Total	
Anatomy 1	PT101	3	2	-	2	4	----
Physiology 1	PT102	3	2	-	2	4	----
Histology 1	PT103	2	1	-	2	3	----
Biochemistry 1	BCHM101	2	1	-	2	3	----
Biophysics	PHY104	3	2	-	2	4	----
English for Academic Purposes	ENG101	3	3	-	-	3	----
Introduction to Information Technology	CSP101	3	2	-	2	4	----
<b>Total</b>		<b>19</b>	<b>13</b>		<b>12</b>	<b>24</b>	

Second Term:

Course	Code	Credit Hours	Contact Hours				Pre-requisites
			Lecture	Clinical	Practical	Total	
Anatomy 2	PT111	3	2	-	2	4	PT101
Physiology 2	PT112	3	2	-	2	4	PT102
Histology 2	PT113	2	1	-	2	3	PT103
Biochemistry 2	BCHM111	2	2	-	-	2	BCHM101
Biomechanics 1	PT114	3	2	-	2	4	----
English Language for Study Skills	ENG112	3	3	-	-	3	ENG101
Introduction to Computer Programing	CSP112	3	2	-	2	4	CSP101
<b>Total</b>		<b>19</b>	<b>14</b>		<b>10</b>	<b>24</b>	

Foundation Level Course Specifications

## **Anatomy 1 (PT101)**

**The aims of the course are:**

- To provide the fundamental knowledge related to normal human structures.
- To provide the fundamental knowledge of functional anatomy of the upper extremity (bones, joints, muscles, nerves, vessels and soft tissues).
- To emphasize on important regions: axilla, carpal tunnel, etc.
- To provide lab information through dissection.
- To emphasize on clinical anatomy of selected injuries.

## **Physiology 1 (PT102)**

**The aims of the course are:**

- To describe the physiology of the body fluids, blood and different body systems.
- To introduce the student to general physiology; Body fluids, blood, homeostasis, autonomic nervous system, nerves and skeletal muscles.
- Use lab activities to be familiar with the characteristics of different systems.

## **Histology 1 (PT103)**

**The aims of the course are:**

- To describe the fundamental principles of histology of different organs and cells.
- To focus on the organ in terms of the cells and tissues that they are composed of.
- To include the microscopic structure of the cells, tissues, & organs.

## **Biochemistry (BCHM101)**

**The aims of the course are:**

- To cover the major topics of biochemistry.
- To get the students familiar with the biochemistry of carbohydrates, lipids, proteins and digestive secretions.
- To cover the hormonal control of digestion and bacterial flora in the GIT.
- Use lab activities to be familiar with the biochemical nature of different components

## **Biophysics (PHY104)**

**The aims of the course are:**

- To provide the student with laws of physics and its application to electric circuits, electromagnetic field, water, fluids, and temperature.
- To provide the student with the possible biological effects of thermal, magnetic and electromagnetic field.
- To include the effects of sound, light waves and LASER therapy.
- To provide fundamental knowledge about the laws of physics and its application to electrotherapy, heat therapy and hydrotherapy.

## **English for Academic Purposes (ENG 101)**

**The aims of the course are:**

- To help students in effectively writing academic essays and avoiding common errors.
- To teach students how to read comprehension passages, to learn style and organization patterns to do summary writing and understand vocabulary in context.
- To introduce specialized vocabulary items pertaining to sciences.

## **Introduction to Information Technology (CSP101)**

**The aims of the course are:**

- To provide the basic principles of the computer, information technology and systems.
- To provide intensive exposure to computer-related terminology and jargon.
- To introduce the student to the internet and emphasizes the use of the internet for scientific and business applications.
- To introduce the student to the basic hardware components, data networking, communication principles and basic software concepts.
- To introduce the students to the types of application of software such as personal productivity tools, scientific visualization and graphics applications, and different business applications.

## **Anatomy 2 (PT111)**

**The aims of the course are:**

- To provide the fundamental knowledge related to normal human structures.
- To provide sufficient knowledge on functional anatomy of lower extremity (bones, joints, muscles, nerves, vessels & soft tissues).
- To enable the students to gain practical skills in anatomy.
- To enable the students to recognize and differentiate different body tissues like bones, vessels, muscles, ...etc.
- To enable the students to relate the changes in normal anatomy to clinical data

## **Physiology 2 (PT112)**

**The aims of the course are:**

- To provide the required information about the physiology of different systems like the respiratory, circulatory, metabolic and cardiovascular systems.
- To give great emphasis on the clinical consequence.

- To introduce the students to the homeostasis concept and related control mechanisms.

## **Histology 2 (PT113)**

**The aims of the course are:**

- To provide the students with the required skills to study tissues and organs.
- To correlate between cell structure, function and tissue.
- To enable the student to prepare tissues for investigation.
- To provide the students with the requested knowledge about body structures regarding tissues, organs and systems.
- To provide the student with the knowledge about the results of injuries and diseases to any human cell and the grade of inflammation from acute, subacute or chronic.

## **Biochemistry 2 (BCHM111)**

**The aims of the course are:**

- To provide the students with information about the metabolism of carbohydrate, aerobic and, citrate.
- To provide the students with information about lipids digestion, absorption, and classification will be offered.
- To enable the students to investigate metabolism by examining its component pathways.
- To increase awareness to the new procedures and techniques applied in the evaluation of some metabolic disorders like diabetes and gout.
- To provide the fundamental knowledge of nutrition, aerobic and anaerobic metabolic reactions and clinical assessment techniques.

## **Biomechanics (PT114)**

**The aims of the course are:**

- To introduce the movement challenges and the engineering tools used to face the challenges.
- To teach the student human motion based on functional anatomy.

- To include simple body mechanics, leverages and pulley system in the human body, center and line of gravity and its effects on human motion.
- To provide the student with the knowledge about the biological and neurological mechanisms of movement.
- To enable the student to solve motion equations and apply principles of biomechanics.

## English Language for Study Skills (ENG112)

The aims of the course are:

- To improve formal reports and business proposals writing, note taking and oral presentation skills.
- To help students to acquire study skills that would facilitate any research process.
- To teach students types of business writing, such as reports, business letters, memos, and curriculum vitae. There is also a focus on reading and listening skills and learning vocabulary in context.

## Introduction to Computer Programming (CSP101)

The aims of the course are to:

- Introduce the basics of programming with emphasize on object oriented techniques using C++.
- Familiarize the students with the syntax and the semantics of the C++ programming language.
- Shed light on the input/output instructions, data types, arithmetic operations, control structures, arrays, and functions.