Course Specification

Course Title	Biophysics	
Course Code	ASW/NUR. 116	
Academic Year	2017 /2018	
Coordinator	**Assistant lecture**	
Teaching Staff	Biophysics department staff	
Branch / Level	Frist year	
Semester	First semester	
Pre-Requisite		
Course Delivery	**Lecture**	**15 h lectures**
Parent Department	biophysics department	
Date of Approval		

1. Course Aims

The aims of this course are to:

The course introduces the undergraduate nursing student to Provide students with required knowledge and practice regarding biophysics

Intended Learning outcomes (ILOs)

A. Knowledge and understanding:

By the end of this course students should be able to:

A1. Recognize the key terms of biophysics.

A2. Describe transport of ions and molecules through the cell membrane.

A3. Recognize the basic physics of diffusion of gases and potentials.

A4. Identify the electrocardiography (E.C.G).

A5. Describe physics of blood, blood flow and pressure.

A6. Recognize physical basis for edema.

A7. Identify the physical principles of optics.

A8. Discuss physical nature of sound.

A9. Explain physical consideration of heat production and loss.

B. Intellectual skills:

By the end of this course, the students should be able to:

B1. Illustrate the cell membrane and the diffusion through the cell membrane.

B2. Evaluate diagnostic measures used to detect physics of blood flow and blood pressure

B3. Interpret the physical basis for edema.

C. professional skills:

C1. Compare between normal and abnormal data

D. General skills:

D1. Using computer for search.

D2. Using interpersonal skills

2. Course Contents

Week	Topics
1st week	The key terms of biophysics**.**
2nd week	Transport of ions and molecules through the cell membrane.
3rd week	The basic physics of diffusion of gases and potentials
4th week	The electrocardiography (E.C.G).
5th week	Physics of blood.
6th week	Physics of blood flow.
7th week	Describe physics of blood pressure
8th week	Physical basis for edema.
9th week	the physical principles of optics
10th week	Physical nature of sound**.**
11th week	Characters of the sound wave
12th week	Physical consideration of heat production.
13th week	Physical consideration of heat loss.
14th week	Revision
15th week	revision

3. Teaching and Learning Methods

Modified lectures

Discussion

Demonstration & re-demonstration

4. Student Assessment

Assessment Method	Assessment Length	Schedule	Proportion
Written Examination		15^{th} week	100%

5. List of references

A. Sedra, K. Smith, *Micro-electronic Circuits, 5th ed.* Oxford University Press; 2004.

J. Cathey,*Schaum's Outline of Theory and Problems of Electronic Devices and Circuits.* McGraw-Hill; 2002.

S. Nasar, *3000 Solved Problems in Electrical Circuits.* McGraw-Hill; 1998.

6. Facilities required for teaching and learning

	Course Coordinator	Head of Department
Name	Prof.	Prof.
Name (Arabic)	أ. د	أ. د.
Signature		منى حسن صديق
Date	/ /2015	/ /2015