



University: South Valley University

Faculty of Veterinary Medicine,

Programme(s) on which the course is given: *Bachelor degree of veterinary science*

Major or Minor element of programmes: minor

Department offering the programme: Physics Department

Department offering the course: Physics Department

Academic year / Level: First year (2nd semester)

Date of specification approval: 22/12/2009

A- Basic Information

Title: Biophysics

Code: 123

Credit Hours:

Lecture: 2

Practical: 2

Total: 4

B- Professional Information

1 – Overall Aims of Course

Graduates of veterinary medical program must acquire the following knowledge and understanding:

- 1- Structure of Matter
- 2- Radiation physics
- 3- X-Ray
- 4 - Interaction of Radiation with Matter
- 5- Radiation Biology
- 6- Radiation Protection

2 – Intended Learning Outcomes of Course (ILOs)

a- Knowledge and Understanding:

- a1- basic knowledge about Structure of Matter.
- a2- basic knowledge about Radiation physics.
- a3- basic knowledge about X-Ray.
- a4- basic knowledge about Interaction of Radiation with Matter
- a5- basic knowledge about Radiation Biology
- a6- basic knowledge about Radiation Protection

b- Intellectual Skills:

Graduates must have the ability to:

- b1 - Able to deal with different Structure of Matter.
- b2- Able to deal with problems in Radiation physics.
- b3- Able to deal with different characters of X-Ray.
- B4- Able to deal with the basics of Interaction of Radiation with Matter.
- B5- Able to deal with the basics of Radiation Biology and Radiation Protection.

c- Professional and Practical Skills:

Graduates must be attain the capacity to:

- c1-Ability to carry out experiments in electricity circuits and heat principles.
- c2- Ability to design experiments based on Radiation physics.
- c3- Ability to avoid possible injuries from exposure to x-rays.

d- General and Transferable Skills

Graduates must have the ability to:

- 1- Ability to write reports and essay on the different scientific items on physics.
- 2-Reporting of the results of different experments in printable sheets.
- 3- Ability to work in groups and team.
- 4- Ability to use computer and internet to extract information and knowledge.

3- Contents:

Topic	No. of hours	Lecturer	Tutorial/ Practical
Structure of Matter	1	Prof. dr. Gamal Atta	2
Introduction to Radiation physics	2	Prof. dr. Gamal Atta	2

X-Ray	1	Prof. dr. Gamal Atta	2
Interaction of Radiation with Matter	2	Prof. dr. Gamal Atta	2
Radiation Biology	4	Prof. dr. Gamal Atta	2
Radiation Protection	2	Prof. dr. Gamal Atta	2
Total	12		12

4– Teaching and Learning Methods

4.1- Lecturing

4.2- Discussion sessions

5 – Teaching and Learning methods for Disables students

5.1- Office hours

6- Teaching and Learning Methods for Distinguished students

6.1- Assessment of writing review paper to gain skills of self learning and presentation

6.2- Research assignment

7- Student Assessment

7.1- Examination

Written exam (essay) to measure a1, a2, c1, c2, and c3

Multiple choice exam to measure b.1, b.2, and b.3

7.2- Time Schedule

Mid term (multiple choice questions) Week 8

Final exam Week 16

7.3-Weighting of Assessments

Mid-Term Examination	%
Final-term Examination	%
Oral Examination.	%
Practical Examination	%
Semester Work	%
Other types of assessment	%
<u>Total</u>	<u>3</u> <u>100%</u>

7.4- Tools:-

- Assignments which are:-

- 1- Formulation of posters to illustrate certain items of the course.
- 2- Formulation of essays on certain subjects of the course.
- 3- Practical follow up of certain experimental work.

8- List of References

8.1- Course Notes

Department course notes (lectures and practical)

8.2- Required Books (Text Books)

8.3- Recommended Books

8.3.1- Biophysical Science by J. L Oncley

8.3.2- Progrerss in Biophysics by Butler, J. A. V & Huxley, H. E.

8.4- Periodicals, Web Sites, ... etc

9- Facilities Required for Teaching and Learning

- Appropriate teaching accommodation like teaching and assignments rooms.
- Teaching aids like overhead projectors, scientific posters.
- Suggest also the presences of data show which is essential for presenting the theoretical and practical courses.

Course Coordinator: prof. Dr. Gamal aldeen atta

Head of Department: prof. Dr. Gamal aldeen atta

Date: 1 / 10 / 2009