Course Specification

A- Basic Information

Programme(s) on which the course is given:	MSc of General Physiology
Depaetment responsible for offering the course:	Zoology
Depaetment responsible for teaching the course:	Zoology
Academic year:	2012-2013
Course title and code:	Physiology of Heart and circulation Z617
Contact hours (credit hours):	Lecture: 2 hrs Practical: 0hrs Total: 3 hrs
Course coordinator:	Prof. M. F. F. Bayomy

B- Professional Information

The course aim and intended learning outcomes are based on that mentioned in the programme specifications, with more course-related specific details.

1- Overall Aims of Course: By the end of this course, the student should be able to

* Outline the structure and functions of the heart and blood.
* Describe the formation of red blood corpuscles.
* List the causes and development of some haematologic diseases like different types of anemia.
* outline some important definitions in the field of circulation

a- Intended Learning Outcomes of Course (ILOs):

b- Knowledge and Understanding:

a1- Define the haemopoeitic organs.

a2- Describe the heart anatomy, function and blood formation.

a3- Arrange some haematologic phenomena and mechanisms.

a4- Outline some important definitions in the field of circulation

c- Intellectual Skills:

b1- Measure the student capability to identify the structure and functions of heart and blood components.

d- Professional and Practical Skills:

c1- Determine student capability to identify the structure and functions of blood components

e- General and Transferable Skills:

d1- Measure the scientific writing ability.

d2- Utilize the oral communication skills.

d3- Use the appropriate technology such as (Internet) for scientific research.

2- Course Contents

Topic	No. of hours	Tutorial/ Practical	Lecture
Blood plasma :chemical constituents and functions .	2	-	1
Red blood cells: origin, morphology , characters, fate and functions.	2	-	1
White blood cells: Types and morphology as well as functions of each type.	4	-	2
Thrombocytes : characters and functions.	2	-	1
Blood transfusion and blood groups.	2	-	1
The general blood circulation.	2	-	1
Structures of the heart.	2	-	1
Physiology of the heart and cardiac metabolism.	2	-	1
Conduction system.	2	-	1
The general blood circulation.	2	-	2

3- Teaching and Learning Methods

- Lectures.
- Practical sessions.
- Writing essays.
- Oral presentation.

4- Student Assessment Methods

- Essays
- Oral exms
- Written exams.
- Practical exams.
- Quizzes.

Assessment schedule

Assessment 1	Essay	Week 1 essay/term
Assessment 2	Oral exam	Twice/term
Assessment 3	Mid-term exams	Week 7
Assessment 4	Semester Work Exam	Week 10
Assessment 5	Final term exam	Week 14

Weighting of assessments

Mid-term examination	20%
Final-term examination	40%
Oral examination	10%
Practical examination	20%
Semester work	10%
Total	100%

6- List of references

1. **Course Notes**
   1- Internet and library material.
   2- Handouts given separately during the course span.
2. **Essential Books (Text books):**
   3- Textbooks of Hematology.
   4- Textbook of Physiology.
3. **Recommended Books**
   5- Essentials of Hematology.
   6- General Biochemistry & Hematology.
4. **Periodicals, web sites,…,etc**
   7- American Journal of Physiology.

7- Facilities required for teaching and learning

* Dark room equipped with overhead and LCD projector.
* Laboratory slides and specimens.
* Librarian facilities.
* Computers with internet Access**.**

Course coordinator: Prof. M. F. F. Bayomy
Head of Department: Prof. Saber Sakr
Date: January / 2013