Course Specifications

Program(s) on which the course is given : P., P.&las., P.&comp., P.&G., P.&Ch.
Major or Minor element of program : major - major - major - major - major
Department offering the program : P., P., P.&Math., P.&G., P.&Ch.
Department offering the course Physics
Academic year / Level 1
Date of specification approval 2012

A- Basic Information

Title:	**Applied Physics (1)**	**Code: P189**
Credit Hours:	**3 h**	**Lecture:00**
Tutorial:00	**Practicals:6h**	**Total:6h**

B- Professional Information

1 – Overall Aims of Course

at the end of this course the student should know the basics laws of electricity, magnetism, optics, and heat transfer should be able to perform some measurements and to verify basic laws of physics

2 – Intended Learning Outcomes of Course (ILOs)

a Knowledge and Understanding:

a1- understanding the basic laws electricity, magnetism, optics, mechanics and heat transfer

a2- understanding the basics of statistical representation

b Intellectual Skills

b1-scientific thinking

c Professional and Practical Skills

c1-setup of different experiments of physics

c2-measurement of some physical constants

c3-verficaton of some laws of physics

d General and Transferable Skills

d1-the use of measurement instruments

d2-representation of scientific data

d3- reduction of the experimental error

3- Contents

Topic	No. of hours	Lecture	Tutorial/Practical
Introduction about the aims of the lab	3		
Introduction about presentation of practical data	3		
1-simple pendulum	6		
Fly wheel	6		
Motion in an inclined plane	6		
Speed of sound	6		
Meld's experiment	6		
Ohm's law	6		
Meter bridge	6		
Mechanical equivalent of heat	6		
Specific heat of a solid	6		
Latent heat	6		
Young's modulus	6		
Geometrical optics	6		
Chemical equivalent of copper	6		
Compound pendulum	6		

4– Teaching and Learning Methods

4.1 practical work

4.2-disscutions

5- Student Assessment Methods

5.1 sheat exams … ……. to assess the theoretical knowledge

5.2-practical exams ……. to assess practical skills.
5.3 disscutions ……. to assess student scientific thinking
5.4 reaserch projects …. to assess the overall outcome

Assessment Schedule

Assessment 1 sheet exam (mid &final term).	**Week 8&16**
Assessment 2 practical exams (mid &final term).	**Week 8&16**
Assessment 3 oral exams	**Week every week**
Assessment 4 reaserch projects	**Week final**

Weighting of Assessments

Mid-Term Examination	**10 %**
Final-term Examination	**10 %**
Oral Examination.	**10 %**
Practical Examination	**60 %**
Semester Work	**10 %**
Total	**100 %**

6- List of References

6.1- Course Notes
experimental physics ,department of physics,2005.
6.2- Essential Books (Text Books)
Physics ,Haliday
6.3- Recommended Books

6.4- Periodicals, Web Sites, … etc

7- Facilities Required for Teaching and Learning

Experimental lab…

Course Coordinator: Prof.Dr.Amin El-Adawy
Head of Department: Prof.Dr. Sana Maize
Date: / /