Course Specifications

Programme(s) on which the course is given: Physics & Laser

Major or Minor element of programs Physics

Department offering the program Physics

Department offering the course Physics

Academic year / Level third

2012 Date of specification approval

A- Basic Information

Title:	**Applied optical Physics**	**Code: L384**
Credit Hours:	**4 h**	**Lecture: -**
Tutorial: 00	**Practical :8h**	**Total: 8h**

B- Professional Information

1 – Overall Aims of Course

at the end of this course the student should know the basics laws of optics and to verify basic laws of physical optics

2 – Intended Learning Outcomes of Course (ILOs)

a Knowledge and Understanding:

After completing the course the student will be able to

a1- understand the basic laws optics

a2- give an account on the basics of statistical representation

b Intellectual Skills

b1-After completing the course the student will be able to

Scientific thinking concerning laser.

c Professional and Practical Skills

After completing the course the student will be able to

C1-setup of different experiments of physics

C2-measure of some physical constants

C3-verficaton of some laws of physics

d -General and Transferable Skills

After completing the course the student will be able to

d1 -use of measurement instruments

d2 - represent of scientific data

d3 - avoid the experimental error

3- Contents

Topic	No. of hours	Lecture	Tutorial/Practical
Michelson interferometer	24	0	3
Thomson exp.	24	00	3
Refractive index	24	0	3
Determination of wavelength of a monochromatic light	24	0	3

4– Teaching and Learning Methods

4.2 practical works

4.3-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…..Week 8&16 (mid &final term).
Assessment 2 practical exams .Week 8&16 (mid &final term).

Assessment 3 oral exams ……. every week	
Assessment 4 research projects Week final	

Weighting of Assessments

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

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 instruments – experimental lab - pens – blackboard - ...etc.

Course Coordinator: Prof.Dr.Abd El Megeed Khafage
Head of Department: Prof.Dr. Sana Maize
Date: / /