مركز الاعتماد وضمان الجودة
ACCREDITATION & QUALITY ASSURANCE CENTER

The University of Jordan

Accreditation & Quality Assurance Center

COURSE Syllabus
Practical Physics-2 (0302112)

1	Course title	**Practical Physics-2**
2	Course number	**0302112**
3	**Credit hours (theory, practical)**	**1 practical**
	Contact hours (theory, practical)	**3 practical**
4	Prerequisites/corequisites	**General Physics-2 (0302102)**
5	Program title	**BSc. In Physics**
6	Program code	
7	Awarding institution	**The University of Jordan**
8	Faculty	**Faculty of Science**
9	Department	**Department of Physics**
10	Level of course	**1st year**
11	Year of study and semester (s)	**1st Semester 2016/2017**
12	Final Qualification	**Bachelor**
13	Other department (s) involved in teaching the course	**-**
14	Language of Instruction	**English**
15	Date of production/revision	**September 2016/December 2016**

16. Course Coordinator:

Dr. Hanan Sa'adeh
Office hours: Announced on the website: eacademic.ju.edu.jo/hanan.saadeh/default.aspx
Office Tel.: 065355000 Ext.: 22029
Email: hanan.saadeh@ju.edu.jo

17. Other instructors:

Faculty Members of the Department of Physics

18. Course Description:

Basic Experiments in Electricity and Magnetism: Electric Field Mapping, Specific Charge of Copper Ions, Power Transfer, Potentiometer, Capacitors: RC Time Constant, Kirchhoff's Laws, Magnetic Field of a Current, Lenses, Young's Double Slit Experiment, Electromagnetic Induction, Ohm's Law.

19. Course aims and outcomes:

A- Aims:
1- Understanding the fundamental concepts in physics.
2- To develop basic skills and tools of experimental physics and data analysis.
3- To develop collaborative learning skills that are vital to success in many lifelong endeavors.
4- To gain an appreciation of the art of experimentation.

B- Intended Learning Outcomes (ILOs):
Upon successful completion of this lab course students will be able to
1- Conduct experimental investigations of simple electric and magnetic phenomena.
2- Carry out measurements utilizing appropriate techniques.
3- Practice record keeping of experimental work and data graphing.
4- Analyze data using simple statistics and compare the results with the relevant theory.
5- Work and coordinate effectively in a group to accomplish laboratory-based tasks.

20. Topic Outline and Schedule:

Exp.#	Experiment Title	Period
1	Electric Field Mapping	18/9-22/9
2	Specific Charge of Copper Ions	25/9-29/9
3	Ohm's Law	2/10-6/10
6	Potentiometer	9/10-13/10
5	Wheatstone Bridge	16/10-20/10
4	Power Transfer	23/10-27/10
9	Kirchhoff's Laws	30/10-3/11
7	RC Time Constant	6/11-10/11
8	Magnetic Field of a Current	13/11-17/11
10	Electromagnetic Induction	20/11-24/11
11	Lenses	27/11-1/12

21. Teaching Methods and Assignments:

Development of ILOs is promoted through the following teaching and learning methods:
Experimentation
Data Analysis

22. Evaluation Methods and Course Requirements:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:
Reports
Quizzes, Pre-lab Quizzes

23. Course Policies:

A- Attendance policies:

Lab attendance is mandatory.

A student whose absence exceeds 15% of lab sessions will be dismissed.

B- Absences from exams and handing reports on time:

Absence from exams without an acceptable excuse means ZERO.

Absence from lab sessions without an acceptable excuse means ZERO in report.

C- Health and safety procedures:

No special precautions.

D- Honesty policy regarding cheating, plagiarism, misbehavior:

All these issues will be considered according to the regulations and laws adopted at the University of Jordan.

E- Grading policy:

Lab Reports: 40%

Quizzes: 20%

Final Exam: 40%

F- Available university services that support achievement in the course:

Lab Room, Library

24. Required equipment:

Lab Manual, Lab Notes, Scientific Calculator.

25. References:

A- Required book (s), assigned reading and audio-visuals:
"Laboratory Experiments: Physics-112" by N. Saleh, B. Bulos, I. Shahin, and A. Hindeleh (The University of Jordan, 1997).

B- Recommended books, materials, and media:
1- "Practical Physic" by G. L. Squires, 4th edition, (Cambridge, UK, 2001).
2- "Physics For Scientists and Engineers with Modern Physics" by Raymond A. Serway and John W. Jewett Jr., 9 th edition, (Thomson Learning, Belmont, CA, USA, 2014).

26. Additional information:

Name of Course Coordinator: Dr. Hanan Sa'adeh Signature: ---------- Date: 14/12/2016

Head of curriculum committee/Department: ---------- Signature: ----------

Head of Department: ---------- Signature: ----------

Head of curriculum committee/Faculty: ---------- Signature: ----------

Dean: ---------- -Signature: ----------

Copy to:
Head of Department
Assistant Dean for Quality Assurance
Course File