

University: Benha

Faculty of Science

Course Specifications

Programme(s) on which the course is given . Basic Science

Major or Minor element of programmes: Major

Department offering the programme : Chemistry

Department offering the course : Mathematics

Academic year / Level : First year (Physical science) /First Semester

Date of Department approval : 2008

A- Basic Information

Title: Statics

Code: 171 M

Credit Hours:

Lecture:2 hrs/week

Tutorial:1

Practical:

Total:3 hrs

B- Professional Information

1 – Overall Aims of Course: At the end of this course student able to:

- i) Know the basics of vector analysis , balanced of a particle and a rigid body**
- ii) Know the basics of bending chains, center of mass, the resolution of forces and friction**
- iii) Know the basics of Hydrostatics**

2 – Intended Learning Outcomes of Course (ILOs)

a-Knowledge and Understanding:

- a1- Develop the ability of the student to deal with some of physical problems**
- a2- Apply what was studying in the previous courses**
- a3- Develop the ability of the student to deal with Static.**

b-Intellectual Skills

- b1- Develop the ability of the student to deal with Statics**

b2- Study reduction of group of forces to one force and a spiral

b3- Able to deal with the forces in three dimensions

c-Professional and Practical Skills

c1- Develop the ability of the student to relate between topics

c2- Apply what was studying in the previous courses

c3- Develop the capability of the student for thinking

d-General and Transferable Skills

d1- Solve problems

d2- Work in groups

d3- Analyze of results

3- Contents

Topic	No. of hours	Lecture	Tutorial/Practical
vector analysis	6	4	2
balanced of rigid body	6	4	2
chains accoucheuse for curvature	6	4	2
the resolution of forces	6	4	2
Friction	3	2	1
Center of weight	6	4	2
Hydrostatics	3	2	1

4- Teaching and Learning Methods

4.1- Lecturing

4.2- Discussions

4.3- Exercises

4.4- Homework

5- Student Assessment Methods

5.1 Discussions to assess applying and evaluating the information

5.2 Essay to assess understanding and knowledge

5.3 Mid term exam to assess solving problem

5.4 End of term exam to assess knowledge with understanding and skills

Assessment Schedule

Assessment 1 : Discussions Week 1-12

Assessment 2 : Essay Week 3

Assessment 3: Mid term Week 7

Assessment 4 : Final exam Week 14

Weighting of Assessments

Mid-Term Examination 10%

Final-term Examination 80%

Oral Examination. 5%

Practical Examination %

Semester Work 5%

Other types of assessment %

Total 100%

Any formative only assessments

6- List of References

6.1- Course Notes

6.2- Essential Books (Text Books)

Basic Statistics, A. E. Maxwell, Chapman & Hall, 1978

6.3- Recommended Books

Basic Statistics, A. E. Maxwell, Chapman & Hall, 1978

6.4- Periodicals, Web Sites, ... etc

Science direct, google.com; Chemweb.com

7- Facilities Required for Teaching and Learning

Course Coordinator: Prof. Dr. Effat Abbas

Head of Department: Prof. Dr. Effat Abbas

Date:

Head of Department: