

نموذج مواصفات المقرر

كلية : التربية

جامعة : الفيوم

Programme(s) on which the course is given Bachelor's Degree of Science and Education
(Mathematics)

Major or minor element of programmes Major

Department offering the programme: Education Departments+Mathematics Department

Department offering the course Mathematics

Academic year / Level Third Year (Second-Term)

Date of specification approval 20 / 10 /2008

A- Basic Information

Title Astro-Mechanics

Code: 09328 Mat

Credit Hours

Lecture: 2

Tutorial: 1

Practicals:

Total: 42h

B- Professional Information

1- Overall Aims of Course

On completion of this course student will be able to:

- 1- Understand and learn the concept of nighttime sky , naked eye view ,motion of sky ,apparent motion of planets.
- 2 -Apply the concepts for solving some physical planet problems.

2- Intended Learning Outcomes of Course (ILOs)

On completion of this course student will be able to:

A- Knowledge and understanding:

- A- 10- 1: Understand the phenomena of Phases of moon and the nighttime sky,
A- 10-2 Understand the nature of light and the formation of solar system.

B- Intellectual Skills:

- B-10-1: Increase the students' ability to use the new technological tools .
B-10-2: Show logical thinking and be self independent in problems solving.

C- professional and Practical Skills:

C-9-1: Use the new technological tools .

C-9-2 : Group working.

D- General and Transferable Skills:

D-2-1: Solve many problems in life using the fundamental concepts .

D-2-2: Show mathematical thinking and be self independent in any problem solving situations

3- Contents :

| Topic | No. of Hours | Lecture | Tutorial / Practical |
|--|--------------|---------|----------------------|
| 1-Introduction | 4 | 2 | 2 |
| 2-Historical Astronomy& units | 4 | 2 | 2 |
| 3- Nighttime sky. | 4 | 2 | 2 |
| 4-Star and lunar clips, phases of the moon. | 4 | 2 | 2 |
| 5-Story life of stars , formation , main sequence. | 4 | 2 | 2 |
| 6-Giant and super giant, dwarfs-Neutron stars. | 4 | 2 | 2 |
| 7-Nova- super Nova, and black holes. | 4 | 2 | 2 |

4- Teaching and Learning Methods:

4-1 Lectures.

4-2: Discussion sessions.

4-3: Research assignment .

5- Student Assessment Methods:

5-1: Written exam(mid-term)to assess the level of knowledge and understanding.

5-2: Class work (quizzes)to assess the level of Intellectual skills to discuss and solve some problems .

5-3: Written exam(at the end of term)to assess the ability to pass the exam .

Assessment Schedule :

Assessment 1 : Written exam(mid-term) Week 7

Assessment 2 : Class work (quizzes)Week 4 - 8 - 12

Assessment 3 : Written exam(at the end of term)Week at the end term .

Weighting of Assessments:

| | | |
|--|----|------|
| Mid-Term Examination | 30 | % |
| Final-Term Examination | 70 | % |
| Oral Examination | | % |
| Practical Examination | | % |
| Semester Work | | % |
| Other Types of Assessment | | % |
| Total : | | 100% |
| Any formative only assessments Homeworks . | | |

6- List of References :

6-1: Course Notes:

Course note prepared by staff members of Math. Dept.

6-2: Essential Books (Text Books):

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6-3: Recommended Books:

Celestial mechanics :www.ericwesstein.com

6-4: Periodicals, Web Sites, etc:

www.alibris.com

7- Facilities Required for Teaching and Learning

Library contains new edition books with enough copies.

Computer Lab

Internet networks

Course Coordinator : Dr . Asmal abd El zaher

Head of Department : Prof Kamal El-Dab

Date: / /