نموذج مواصفات المقرر

جامعة : الفيـــــوم **كلية : التربيـــــــــــة**

Relevant Program*: B.Sc. (Science & Education), Mathematics ,Basic Education*
Major or minor element of programmes : Major

Department offering the program: Educational Depts. + Math Department Faculty of Science
Department offering the course: Mathematics

Academic year / Level: First Year (First Term)

Date of specification approval : 20 / 10 / 2008

A- Basic Information

Title: Fundamental Mathematics Code: ١٧١١١ Mat

Credit Hours:--- Lecture: **3**

Tutorial: **2** Practical: Total: **70**

B- Professional Information

1- Overall Aims of Course

The course aims at:

1-Mastering school mathematics.

2-Ability to explaining ideas to pre-university students.

3-Producing geometrical models.

2- Intended Learning Outcomes of Course (ILOs)

A- Knowledge and understanding:

٢-١-أ Master the main concepts.
١-٢-أ Perceive shapes in the space.

B- Intellectual Skills:

١-٤. ب Solve related problems.
٢-٤. ب Discover some relations.

C- Professional and Practical Skills:

١- ت. Solve triangles in two and three dimensional situations.

٢- ت. Increase the student's ability to deal with the different problems .

D- General and Transferable Skills:

١- ث- Use new technological tools.

٢-١-ت Ability to explain basics to others.

١-٢.ت Group working.

3- Contents:

Topic	No. of Hours	Lecture	Tutorial / Practical
- 1-Language of Mathematics and Mathematical logic: Statements, propositions, truth tables using: negation, conjunction, disjunction, conditional, biconditional, quantifiers, tautology, applications, sets.	12	4	8
2- Relations and Functions: Ordered pairs, Cartesian product, binary relations, properties equivalence classes and partitioning, Mapping, types of mappings, functions, inverse function, different types and examples, binary operations.	12	4	8
3-Number systems: Natural, Integers, Rational, real, complex, solving systems of equations, systems of inequalities.	12	4	8
4-Numeration systems: Different bases, operations, solving equations, applications.	6	2	4

4- Teaching and Learning Methods:

4-1: Lectures.

4-2: Discussion sessions.

4-3: Research assignments.

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 notes prepared by staff members of Mathematic Department

6-2: Essential Books (Text Books):

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6-3: Recommended Books:

Algebra, A first course, By: Sora Cino, D. addition Wisely.

6-4: Periodicals, Web Sites… etc:

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7- Facilities Required for Teaching and Learning

Library contains new edition books with enough copies.

Computer Lab

Internet networks

Course Coordinator: Dr.Osama Abd Salam

Head of Department Prof. Kamal Ahmed El Dab

Date: / /