

MATHEMATICS1 COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

1. Teaching Institution	University of Baghdad/ College of Science for Women
2. University Department/Centre	Computer Science
3. Course title/code	Mathematics 1/104 CMA1
4. Programme(s) to which it contributes	
5. Modes of Attendance offered	Actual attendance in lectures
6. Semester/Year	First year/ first semester

7. Number of hours tuition (total)	30 hours
8. Date of production/revision of this specification	4-4-2016
9. Aims of the Course	
The course aims to put laws and the basic concepts and axioms in mathematics starting from the simplest kinds of different classifications and function definition through how to solve the various methods of derivation as well as get to know the simplest ways to solve them in the course.	

10. Learning Outcomes, Teaching ,Learning and Assessment Method
<p>B- Knowledge and Understanding</p> <p>A- cognitive goals A1- identify optimal ways to solve mathematical problems A2- learn how to distinguish the function of the differential equation and how to solve them A3- identify some ordinary differential equations and their solutions applications A4- identification of partial differential equations and their solutions A5- identify sequences and series , types and study the convergence and divergence in addition to her many other topics within the course</p>
<p>B. Subject-specific skills</p> <p>B1 - choose how best solution to the issue of sports after displaying different methods have the solution B 2 Knowledge of a way to simplify math problems based on the foundations of mathematics task</p>
<p>Teaching and Learning Methods</p> <ul style="list-style-type: none"> • Education: provide lectures and printed sources from the modern and diverse and rich including examples • Education: Harnessing smart blackboard to the goal of teaching students and explain the steps the solution and extraction results • Education: resolving some questions, with intent to contain mistakes and make the students extracted error • Learning: asking questions and inquiries and making the student turn into a teaching

explanation and solution on the blackboard at that point

- Learning: questions directly and gradually all students to learn the extent of interaction and the rest to be paid attention to
- Learning: Each specific group and explain its interaction between students with questions and answers and provide an environment that enables the student to lecture management or debate

Assessment methods

- Quizzes (quiz) semi- weekly
- Reporting and in the form of aggregates by a report for each set and dropped over students
- Questions sudden and overlapping put up with to explain Article
- monthly and quarterly tests

C. Thinking Skills

C1 - ask range solutions to the same problem and discussed separately and determine the appropriate method of solution to the problem at hand with a stand on the disadvantages of the rest of the roads

C2- put forward solutions contain inaccuracies and identifying these mistakes After discussion and processed

C 3 - asked questions that oral exceptional need exceptional answers as be of a specific weight in terms of calendar and grades which are strong hoof for the participation of students and compete and compete to solve

C4- choose the most appropriate way to solve mathematical problems after displaying different ways of solutions

Teaching and Learning Methods

Discussions that arise in the course of the lecture , and an attempt to involve the largest possible number of students , and touched on the details of things and discussed objectively and targeted discussion.

Assessment methods

- Oral evaluated by involving students in discussions
- Quizzes (quiz)
- exams monthly and quarterly

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1- distribution of specific topics for each group of students to prepare research reports on the World Wide Web , the sources or the library and drafted in accordance with the basis of the approved formulation research

D2 - giving leadership debate administration , however, the group discussion and enable them to drive and manage the dialogue

D3- alert on errors in students' oral answers and discussion to see her fault

D4- alert on errors in the answers the students and editorial marking them to clarify to the student.

11. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2	Function definition and different kinds of algebraic and trigonometric and hyperbolic in addition to the function composition	Definition of function and its different kinds	According to pt 10	According to pt 10
2	2	Drawing way mathematical functions and ways to solve them	Graph of functions and its solution	According to pt 10	According to pt 10
3	2	Defined sequences and how to calculate it and find the general formulas as well as to identify the continuity of functions	Limits and continuity	According to pt 10	According to pt 10
4	2	Identify derivatives of mathematical functions in addition to the different kinds of methods used to solve them	The derivatives	According to pt 10	According to pt 10
5	2	Recognize the laws of other important derivation of the chain to the laws of implicit differentiation and other	Rules of derivation	According to pt 10	According to pt 10
6	2	Identify the partial derivation laws	Rules of partial differential equations	According to pt 10	According to pt 10
7	2	Applications of derivatives based on the first and second derivatives as finding	Application of derivatives	According to pt 10	According to pt 10

		peaks and micro points			
8	2	Identify the exponential and logarithmic functions are functions of and their relationship to each other	Exponential functions, logarithmic and natural logarithmic functions	According to pt 10	According to pt 10
9	2	Series is ended and the study of convergence and divergence and kinds as Taylor and Maclaurin	Infinite series	According to pt 10	According to pt 10
10	2		First seasonal exam	According to pt 10	According to pt 10
11	2	How to formulate mathematical model	Mathematical Modeling with differential equations	According to pt 10	According to pt 10
12	2	Inverse trigonometric functions and how to sketch them	Inverse of trigonometric functions and its graph	According to pt 10	According to pt 10
13	2	Inverse algebraic functions and methods calculated and charted The second and final exam	Inverse of algebraic functions and its evaluation and graph	According to pt 10	According to pt 10
14	2	Inverse hyperbolic functions and the method of their account and draw it	Inverse of hyperbolic functions and its evaluation and graph	According to pt 10	According to pt 10
15	2		Second seasonal exam	According to pt 10	According to pt 10

12. Infrastructure

<p>Required reading:</p> <ul style="list-style-type: none"> · CORE TEXTS · COURSE MATERIALS · OTHER 	<p>Calculus, Anton, Bivens and Davis, 7th edition, 2012</p> <p>Any other edition of calculus is necessary to understand the subjects of this stage of study</p>
<p>Special requirements (include for example workshops, periodicals, IT software, websites)</p>	<p>Viewing periodically on the rich resources of websites and books related to the subject as well as attendance and participation in the patrols and workshops held</p>
<p>Community-based facilities (include for example, guest Lectures , internship , field studies)</p>	<p>Calculus, Anton, Bivens and Davis, 7th edition, or any other edition of calculus is necessary to understand the subjects of this stage of study.</p>

<h3>13. Admissions</h3>	
<p>Pre-requisites</p>	<p>Intermittent structures , a good knowledge of the basics of math and other concepts of derivatives and methods of integration</p>
<p>Minimum number of students</p>	<p>Depending on the size of the classroom and on the division of the people, 30 students .</p>
<p>Maximum number of students</p>	<p>Depending on the size of the classroom and on the division of the people, 35 students .</p>