هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

T-104
2022

Course Specification

Course Title:	**Mathematics I**
Course Code:	**191MATH**
Program:	**MMET, EPET, CHET**
Department:	**Basic Sciences and Supporting Studies**
College:	**College of Applied Industrial Technology(CAIT)**
Institution:	**Jazan University**
Version:	T-104-2022
Last Revision Date:	2023

Table of Contents:

A. General information about the course:

Course Identification					
1. Credit hours:	2				
2. Course type					
a.	University ☐	College ☒	Department☐	Track☐	Others☐
b.	Required ☒	Elective☐			
3. Level/year at which this course is offered: One/First					
4. Course general Description This introductory course in mathematics covers the following topics: Basic Concepts of Algebra, equations and inequalities in one variable, two dimensional co-ordinate system and graphs, introduction to functions, linear and quadratic functions, and synthetic division. The course is introduced through three hours lectures and two hours tutorials weekly.					
5. Pre-requirements for this course (if any): None					
6. Co- requirements for this course (if any): None					
7. Course Main Objective(s) The course aims to teach the students the basic and fundamental mathematical concepts required for technical courses, allowing the student to move on to complete successfully, more advanced courses.					

1. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1.	Traditional classroom	3	100
2.	E-learning	--	--
3.	Hybrid • Traditional classroom • E-learning	--	--
4.	Distance learning	--	--

2. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	12
2.	Laboratory/Studio	--
3.	Field	--
4.	Tutorial	24

5.	Others (specify)	--
	Total	36

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Show knowledge of Real number system, Sets, interval notation, equations, coordinate plane, functions, polynomials, Order, absolute values.	K1	Lecture, tutorial, active learning	Quizzes, Assignments, exams
1.2	Show knowledge of Real number system, Sets, interval notation, Order, absolute values.	K1	Lecture, tutorial, active learning	Quizzes, Assignments, exams
2.0	Skills			
2.1	Use the knowledge of polynomials, addition of polynomials, multiplication of polynomials, factorization of polynomials.	S1	Lecture, tutorial, active learning	Quizzes, Assignments, exams
2.2	Identify the number and nature of roots of quadratic equation, linear equation and linear inequality in one variable.	S1	Lecture, tutorial, active learning	Quizzes, Assignments, exams
2.3	Use the knowledge of coordinate plane, distance between two points, midpoint of a line segment, circle, and lines.	S1	Lecture, tutorial, active learning	Quizzes, Assignments, exams
2.4	Carry out addition, subtraction, multiplication of functions, Zero of functions, Division of polynomials, exponential and logarithmic functions.	S1	Lecture, tutorial, active learning	Quizzes, Assignments, exams
3.0	Values, autonomy, and responsibility			

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
3.1	Demonstrate the ability to work independently and meet deadlines.	V1	Assignments	Participation in classroom
3.2				
...				

C. Course Content

No	List of Topics	Contact Hours
1.	Basic Concepts of Algebra	07
2.	Equations and Inequalities in one Variable	06
3.	Functions and Graphs	06
4.	Polynomials, Operations on polynomials, Factoring polynomials	06
5.	Exponential and Logarithmic Functions	04
6.	Union and intersection, complement of sets	07
Total		36

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quiz 1	Week 3	10%
2.	Quiz 2	Week 8	10%
3.	Assignments, homework and participation in classroom	All weeks	15%
4.	Midterm	Week 6	15%
5.	Final Term Exam	As scheduled	50%

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.)

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	• College Algebra and Trigonometry by R N Aufmann, V C Barker and R D Nation, 7th –ISBN-13: 948-1-4390-4860-3, 2011.

Supportive References	• Classroom policy • Lecture notes and hardcopies of assignments "College Algebra, 2nd Edition, Ratti & McWaters".
Electronic Materials	Not utilized
Other Learning Materials	Not utilized

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classrooms should be furnished for 25 students with • White board • Appropriate Chairs
Technology equipment (projector, smart board, software)	
Other equipment (depending on the nature of the specialty)	

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching		
Effectiveness of students assessment	Institution	Online Direct Survey
Quality of learning resources		
The extent to which CLOs have been achieved	Course Coordinator	Direct Survey
Other		

Assessor (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)

Assessment Methods (Direct, Indirect)

G. Specification Approval Data

COUNCIL /COMMITTEE	Electrical Engineering Technology (EET)
REFERENCE NO.	CAITEET23031
DATE	3 09 2023