(Vision for the Future)

CENTRE FOR PREPARATORY STUDIES (CPS)

(Math Section)

Course Syllabus - Fall 2025-26

FPMM101 - Foundation Program Math for Medicine Level 1

A) University Vision, Mission and Values

Vision

Dhofar University aspires to occupy a distinct position among the leading institutions of higher education in the Arab Region.

Mission

To provide quality teaching and learning, conduct research in an inspiring environment conducive to creativity and innovation, and engage with the community.

Core Values

1) **Excellence** - Our commitment to excellence drives us to do better consistently.
2) **Integrity** - We believe in honesty and coherence between our words and actions.
3) **Responsibility** - We accept full responsibility for our actions at all the times.
4) **Commitment** - We are committed to give our best and deliver what we promise.
5) **Transparency** - For us, transparency is the foundation of trust.
6) **Adaptability** - We believe adaptability is the key to success in an ever-changing environment.

B) CPS Vision, Mission and Values

Vision

The Centre for Preparatory Studies aspires to become one of the leading Centers to provide foundation and other preparatory courses in the Arab region, equipping students to be more competitive in colleges inside and outside Oman.

Mission

The Centre for Preparatory Studies strives to expose students to rich, engaging curricula using innovative teaching and learning strategies that enable students to tap their learning potential to become autonomous, and long-life learners.

Values

The core values of the Centre for Preparatory Studies are:

1. Excellence
2. Commitment
3. Discipline
4. Responsibility and Accountability
5. Integrity
6. Life-long Learning

C) Course Description

The aim of this semester-long intensive course is to help incoming students to understand basic concepts of Mathematics. This four-hour course reinforces basic concepts and terminologies through the medium of the English language. The course covers Real number systems, Basic rules of addition, subtraction, multiplication and division, Properties of basic arithmetic operations, Metric units' conversions, Exponents, Polynomials, Factoring Polynomials, reducing rational Expressions, Rationalizing denominators, First-degree equations and inequalities, Graphing functions like Linear and quadratic functions and circles, Graphing Linear inequalities in two variables, and straight lines. Learning outcomes are aligned with Oman Academic Standards. Upon completion, students will transition to FPMM 102.

D) Course, Instructor and Coordinator Information

Course Information

Course Code	FPMM 101
Course Title	Foundation Program Math for Medicine Level 1
Credit Hours	NA [4 Contact Hours per week]
Pre-requisite	NA
Co-requisite	NA
Course Category	Lecture/Interactive Sessions
Language of Delivery	English

Course Coordinator, Instructors Information and Course Schedule

Section	Coordinator	Level	Day	Time (Hrs.)	Email	Office No.	Office Ext.
Math	Mohammad Mustafa	1	S-Th	10:00 - 15:00	m_mustafa@du.edu.om	224 A	7570

Instructors and Course Schedule:

Section	Class Room	Days	Time	Instructor Name	Email	Office No.	Office Ext.
1	xxx	2 (Su-Tu)	xx:00- xx-00	xxxx	xxx@du.edu.om	xxx	xxx
2	xxx	2 (Mo-We)	xx:00- xx-00	xxxx	xxx@du.edu.om	xxx	xxx

E) Course Learning Outcomes

Course Learning Outcomes		Assessment Tools
1	Describe the fundamentals of real numbers and perform basic operations on Real numbers	FA /Quiz 1
2	Convert between metric units.	FA /Quiz 1
3	Define polynomials, perform basic mathematical operations and factoring on polynomials.	Summative/ Midterm
4	Reduce rational expressions	Summative/ Midterm
5	Apply exponent rules, rationalize denominator	Summative/ Midterm
6	Solve first degree equations and inequalities and use them to solve real-life problems.	FA / Quiz 2, Summative/ Final

7	Graph linear equations, inequalities, and systems in one and two variables, calculate distances and determine the slope and equation of a line.	Summative/ Final
8	Solve quadratic equations, including real-life applications.	Summative/ Final
General Study Skills		
1	Time Management and Students' Responsibility: (OAS –f: Using a variety of study techniques)	FA / Quiz 1 Skill
2	Time Management and Students' Responsibility: (OAS – g: Create term planners and study schedules noting key dates/events.)	FA / Quiz 2 Skill
3	Note Taking: (OAS a: Recall and define main concepts- OAS b: Utilize abbreviations and symbols - OAS e: Adopt a note-taking strategy)	FA / Quiz 3 Skill

F) Program Learning Outcomes (PLOs): Refer to Scope and Sequence Document

1	Identify and understand the basic concepts and operations of algebraic mathematics.
2	Solve and sketch equations, inequalities and relations.
3	Recognize and understand the basic concepts of stats and probability.
4	Demonstrate an understanding of the definition of a function and graph some types of functions.
5	Solve simple real-life problems on functions.
6	Recognize and use the basic trigonometric concepts, functions and identities.
PLOs covered in the course:	**1,2,4,5 and 6**

G) Graduate Attributes (GAs)

1	Master theoretical knowledge and practical skills in the student's chosen discipline commensurate with program level and objectives
2	Demonstrate capacity for effective communication, critical thinking, creativity and innovation
3	Exhibit honesty, discipline and accountability
4	Practice tolerance, humility, respect for differences and commitment to service
5	Practice life-long learning
GAs covered in the course:	**1, 2, 3, 4, and 5**

H) Sustainable Development Goals (SDGs) Covered in the Course (If Any)

No.	Sustainable Development Goals	Course book/Unit/Lesson/Topic
SDG 4	Quality Education	- Math Worksheets Booklet - Equations and problem Solving (Related to Quadratic Equation). - Finding distance between two points.

I) Additional Reading Materials, References and Resources

Textbook	Algebra for College Students: Jerome Kaufmann, Karen L. Schwitter, Thomson Brooks/Cole, 2007, 10th Edition, ISBN 1-285- 19578-7
Reference Books	NA
Handouts	Math Worksheets Booklet – Version 1.
Useful Websites	Kuta Software
Software(s)	NA
Other Resources	PPT, Videos
e-learning Resources	Moodle, MS-Teams.

J) Teaching/ Learning Strategies and Use of Technology.

The lecture would include tutorials; homework; assignments; in-class participation; and short quizzes. Students need to refer to the textbooks and/or internet sites together with the handouts to update their knowledge and cope up with the assignments and other assessments. Regular class attendance is important and will be monitored. Students are expected to develop their skills for at least 4 hours a week.

K) Research Teaching Nexus

Not Applicable for CPS students.

L) Weekly Course Content Outline

Teaching Week	Dates	Topics/Activities to be Covered
Week - 1	14 Sep - 18 Sep 2025	• Sets & Real numbers • Basic mathematical Operations on real numbers
Week - 2	21 Sep - 25 Sep 2025	**Complete: Operations on real numbers.** •Properties of basic arithmetic operations. (Commutative, Associative, Distributive and Identity proprieties) • Measurement and Unit Conversion (metric Units). • Polynomials (Definition - Degree of a polynomials - Sums and Differences.)
Week - 3	28 Sep - 02 Oct 2025	• Multiplying polynomials • Common Factor **Quiz Study Skills 1**: Time Management and Students' Responsibility
Week - 4	05 Oct - 09 Oct 2025	• Factoring by grouping • Difference of two squares

		• Factoring trinomials **Quiz-1 (05/10/25)**
Week - 5	12 Oct - 16 Oct 2025	• Reducing rational expressions. • Rationalizing binomial denominators **Quiz Study Skill 2:** Time Management and Students' Responsibility
Week - 6	19 Oct - 23 Oct 2025	• Use Exponents as Integers
Week - 7	26 Oct - 30 Oct 2025	Midterm Exams: 30 %
Week - 8	02 Nov - 06 Nov 2025	No Classes
Week - 9	09 Nov - 13 Nov 2025	• Solving First Degree Equations • Use equations to solve simple real-life problems)
Week - 10	16 Nov - 20 Nov 2025	• Equations involving Fractional forms. • Equations Involving Radicals
Week - 11	23 Nov - 27 Nov 2025	• Inequalities • More on Inequalities and problem solving. (Use inequalities to solve simple real-life problems.) **Quiz-2 (23/11/2025)**
Week - 12	30 Nov - 04 Dec 2025	• Graphing Straight Lines Using Intercepts • Graphing Linear Inequality in one and two variables
Week - 13	07 Dec - 11 Dec 2025	• Solving and Graphing system of Linear Inequalities in two variables. • Finding distance between two points. **Quiz Study Skill 3:** Note Taking
Week - 14	14 Dec - 18 Dec 2025	• Finding Slope of a line. (Parallel and perpendicular lines). • Determining the Equation of a Line
Week - 15	21 Dec - 25 Dec 2025	• Quadratic Formula (with complex roots) • Equations and problem Solving (Related to Quadratic Equation)
Final Exams 40% **(30 Dec 25 – 20 Jan 26)**		

M) Assessment Methods and Schedule

Assessment Tools	Grade Proportion	Week/Dates
Study skills quiz 1	1 %	3rd Week: 21 Sep - 25 Sep 2025
Quiz 1	13%	4th Week: 28 Sep - 02 Oct 2025
Study skills quiz 2	1 %	6th Week: 12 Oct -16 Oct 2025
Midterm Exam	30%	7th Week: 19 Oct -23 Oct 2025

Quiz 2	13%	12th Week: 23 Nov - 27 Nov
Study skills quiz 3	2 %	14th Week:07 Dec-11 Dec 2025
Final Exam	40%	17th Week: 28 Dec 2025 - 01 Jan 2026
Course Work Total	**100%**	
Minimum Passing Marks	**50%**	

N) Important Information for Students

1) University Academic Integrity Policy

The university requires its students to adhere to the academic integrity policy and avoid indulgences in the acts of cheating, collusion or plagiarism during examinations or continuous assessment. Any act of academic misconduct will invite sanctions as per DU policy.

(Please refer to DU Student Handbook and Academic Integrity Policy for detailed guidelines.)

2) Class Attendance Rules

Attendance of all classes and course-related activities is obligatory. The maximum absences allowed for a student is 25% of the total number of classes on a particular course. Before reaching the withdrawal stage, LOGSIS warns the students by way of three warnings sent to their DU email account by DAR. This email messages to students are a formal communication of the university with its students so students are strongly advised to access their DU email accounts on daily basis to track their absences, along other important things, to respond appropriately when needed.

3) The warnings of absences are as follows:

- **First warning**: this is when a student's absence reaches **07%** of the total number of classes on a particular course.
- **Second warning**: this is when a student's absence reaches **14%** of the total number of classes on a particular course.
- **Final warning:** this is when a student's absences reach **21%** of the total number of classes on a particular course.

If the absence crosses **25%**, the student will be dismissed from the course and a "WA" will be shown in his/her transcript against the dismissed course and dismissal letter will be sent to his DU email account.

4) Withdrawal from course:

A student may get withdrawn from one or more courses after the Drop/Add period until **Sunday 21-12-2025** subject to the following conditions:

a) A student who withdraws from a course will receive a grade of "W" for that course

b) A student who is withdrawn from a course for excessive absences (more than 25%) will receive a grade of "WA" for that course.

5) End of Term Evaluation by Students

All students are required to complete "Online Evaluation" of Course, Graduate Attributes and Course Instructor at the end of the term. The specific dates for evaluation shall be announced by the course instructor in the class. It is mandatory for the students to complete this online evaluation, without which their final grades shall not be announced.

6) Missing Exams:

- Make-up exams shall be conducted only once. In the case of final examination, it will be conducted within two weeks of the beginning of the following semester. In the case of mid-term examination, it will be conducted within two weeks of the scheduled mid-term exams.
- If you miss a midterm make-up exam, you will be given a percentage of marks that you achieved in the final exam as a midterm score.
- The following excuses are acceptable upon the recommendations from the instructor/coordinator and approval from the CPS council:
    1) Medical certificate from a government hospital or clinic
    2) Family situation, authorized by DU Students' Affairs Department duly supported by documentary evidence or Wali's Office.

O) Additional information, if any

- Nil.