Course Specifications

Kingdom of Saudi Arabia

The National Commission for Academic Accreditation & Assessment

Course Specifications

Introduction to Mathematics 1

PMTH 112

Course Specifications

Institution: : Al-Majmaah University	***Date of Report:*** 18/10/2015
College/Department: Preparatory Year Deanship	

A. Course Identification and General Information

1. ***Course title and code:*** Introduction to Mathematics 1 / PMTH 112
2. ***Credit hours:*** 2 hours
3. ***Program(s) in which the course is offered:*** Medicine, Dentistry, Applied Medical Science, Engineering, Computer and Science colleges
4. ***Name of faculty member responsible for the course:***
Mr. Mohammad Sudqi Mustafa
5. ***Level/year at which this course is offered:*** 1st level / 1st year (Preparatory Year)
6. ***Pre-requisites for this course:*** None
7. ***Co-requisites for this course:*** None
8. ***Location if not on main campus:***
PY building in Almajmaah male branch,
PY in Almajmaah female branch,
PY in Almajmaah male branch,
PY in Alzulfi female branch
9. ***Mode of Instruction (mark all that apply)***

a. Traditional classroom	×	What percentage?	100%
b. Blended (traditional and online)		What percentage?	
c. e-learning		What percentage?	
d. Correspondence		What percentage?	
f. Other		What percentage?	

Comments:

B Objectives

1. ***What is the main purpose for this course?***
The main purpose of this course is the acquisition of basic concepts and skills in mathematics and taking responsibilities to solve problems pertaining to these concepts and skills.
2. ***Briefly describe any plans for developing and improving the course that are being implemented.***

- Plans that are being implemented for developing and improving the course:
  - Continuous updating of the information, knowledge and skills included in the course through continuous search for new knowledge and skills available in recent publications

(references, books, researches, magazines, internet etc.).
- Verifying the information resources.
- Continuous evaluation of the course content, students' levels, and the development of plans accordingly.

C. Course Description (*Note: General description in the form to be used for the Bulletin or handbook should be attached*)

1. Topics to be Covered		
List of Topics	**No. of Weeks**	**Contact Hours**
Preliminary Concepts	4	8
Equations and Inequalities	3	6
Functions and Graphs	3	6
Polynomial and Relational Function	2	4
Exponential and Logarithmic Functions	3	6

2. Course components *(total contact hours and credits per semester):*						
	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	30	--	--	--	--	30
Credit	30	--	--	--	--	30

3. Additional private study/learning hours expected for students per week.	4

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

	NQF Learning Domains And Course Learning Outcomes	**Course Teaching Strategies**	**Course Assessment Methods**
1.0	**Knowledge**		
1.1	Learning some basic math concepts	Discussing problems, and using a graph	Continuous feedback, quizzes, and oral question
1.2	Learning properties of the linear equation	Discussing some example	Continuous feedback, quizzes, and oral question

1.3	Learning some different ways to solve the nonlinear equations	Discussing problems, and using a graph	Continuous feedback, quizzes, and oral question
1.4	Studying Some Concepts in the analytic geometry	Discussing problems, and using a graph	Continuous feedback, quizzes, and oral question
1.5	Learning the functions Characteristics	Discussing problems, and using a graph	Continuous feedback, quizzes, and oral question
1.6	Learning some types of special functions (exponential and logarithmic functions)	Discussing problems, and using a graph	Continuous feedback, quizzes, and oral question
2.0	**Cognitive Skills**		
2.1	Applying the mathematical concepts they learned to solve some algebraic problems	Solving problems	Quizzes
2.2	Graphing the linear equation	Graphing	Quizzes
2.3	Solving the nonlinear equations with different methods	Solving problems	Quizzes
2.4	Contrasting logarithmic with exponential functions	Making comparison	Quizzes
3.0	**Interpersonal Skills & Responsibility**		
3.1	Develop certain teamwork responsibility	Assignments and team work activities	Observing students, assignment.
4.0	**Communication, Information Technology, Numerical**		
4.1	Prepare and present certain topics during the semester, look out issues in the course.	Presentation under supervision	Evaluation of Presentations
4.2	Use the internet for further problems	assignments	Evaluation of assignments
5.0	**Psychomotor**		
5.1	N.A.		

5. Schedule of Assessment Tasks for Students During the Semester			
	Assessment task	***Week Due***	***Proportion of Total Assessment***
1	**First exam**	7-8	25%
2	**Second exam**	12-13	25%
3	**Quizzes and participation**	During the semester	10%
4	**Final exam**	17-18	40%

D. Student Academic Counseling and Support

Four hour per week (Office hours)

E. Learning Resources

1. List Required Textbooks • Young Anton, *Mathematics 1 & 2 PYP for Almajmaa university*, Wiley, 2013
2. List Essential References Materials (Journals, Reports, etc.) • Howard Anton, *Elementary linear algebra*, Wiley, 2013 , 11 th Edition
3. List Recommended Textbooks and Reference Material (Journals, Reports, etc) • Rhonda Huettenmueller, *Pre-calculus Demystified*, McGraw Hill, 2012, 2nd edition
4. List Electronic Materials (eg. Web Sites, Social Media, Blackboard, etc.) • www.khanacademy.org/math • www.coolmath.com • www.youtube.com • www.wikipedia.com
5. Other learning material such as computer-based programs/CD, professional standards or regulations and software. • Microsoft office

F. Facilities Required

1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.) • Classrooms with 20 chairs and 20 laptops
2. Computing resources (AV, data show, Smart Board, software, etc.) • Data show, Smart boards, Microsoft office
3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list). • N.A

G Course Evaluation and Improvement Processes

1. Strategies for Obtaining Student Feedback on Effectiveness of Teaching Continuous feedback, questioner
2. Other Strategies for Evaluation of Teaching by the Program/Department Instructor • Statistics of exams • Feedback by evaluation unit • External auditing

3. Processes for Improvement of Teaching • Make a revision for students • Giving extra lectures • Using online websites
4. **Processes for Verifying Standards of Student Achievement** • Exams prepared by the coordinator of the course • Statistical processes for students results

5. **Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement**. • Continuous revision and coordination with other collages.

Faculty or Teaching Staff: Mr. Mohammad S. Mustafa

Signature: **Date Report Completed:** 18/10/2015

Received by: Dr. Waleed Albesher **Dean/Department Head: Dean/Preparatory Year**

Signature: _____ **Date: _____**