بسم الله الرحمن الرحيم

Kingdom of Saudi Arabia Ministry of Higher education Majmaah University College Of Sciences Department of Mathematics



المملكة العربية السعودية وزارة التعليم العالي جامعة المجمعة كلية العلوم قسم الرياضيات

# **Facilities and Equipment**



# 2013-1434

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Report of Facilities and Equipment (Overall Rating :***)

# Introduction

There must be adequate facilities and equipment to meet the needs of teaching and learning in the program. It must be followed up over the use of facilities and equipment, and that the assessment is carried on a regular basis for their adequacy through Consultations with faculty, staff and students.

Require you to the following standards to indicate whether the institution in which they operate is committed to good practices listed below, and indicate the quality of this commitment. And as far as possible, must be evaluations are based on evidence and credible evidence, as it should be interpretations Enhanced independent views.

Therefore must post the WFP representatives in planning for the provision of facilities and equipment and maintenance, and to ensure the development of appropriate specifications for the needs of the program. And check the provision of facilities and equipment, and the balance between the needs of the program and policies of the educational institution in order to ensure compatibility of systems and resources available.

We hope the number of reports and ongoing review of the standard to be the seventh facilities and equipment to a high degree of quality, with the use of effective strategies to assess their adequacy to the need of the program, and quality, and related services.

The Mathematics department of Majmaah University provides multiple opportunities for faculty and students to collaborate and discuss research activities. The major research areas are Algebra, Analysis, Algebraic Geometry, Geometry and Topology, Logic, Number Theory, Differential Equations, Rough sets Theory , Functional analysis, Probability and Statistics, Applied Mathematics and Actuarial Science. The Department of Mathematics organizes some weekly seminars which attract researchers from other departments within the campus community. The Mathematics Library at Majmaah University has subject-specific collections. The Mathematics department of Majmaah University has secretarial support readily available for all faculty members.

The Mathematics department of Majmaah University has approximately 20 Dell workstations in a lab reserved for faculty, graduate students, and undergraduates working on research projects. In addition, faculty members have networked computers in their offices running Windows 7. Similar resources are available on a shared basis in graduate student offices. Technical support for the laboratories and all faculty, staff, and graduate student office machines are provided by three full-time systems administrators and a small staff of hourly assistants.

# The human resources of mathematics department

The faculty member is the key element in the learning process. Department of mathematics study materials in other disciplines for example physics, chemistry and computer and others. Mathematics science is source of all other sciences, so the University concerned with picking a qualified faculty member. In the mathematics department of Science faculty in Zulfi city includes faculty members with different specialties for example Professor, Assistant Professor, lecturer, Demonstrator and Scholarship.

In the following we will introduce some stats for faculty staff with a brief biography

Occupation	Number	Non-Saudi	Saudi
Professor	3	3	-
Associate Professor	2	2	
Assistant professor	10	10	-
Lecturer	4	2	2
Demonstrator	3	-	3
Scholarship	4	-	4
Total		17	9

Illustration shows the percentage of Saudi to non-Saudis to the functional framework



Illustration shows the overall non-Saudi Arabia

# Saudi Non-Saudi

The proportion of non-Saudi Arabia 34.6%

## Illustration shows the ratio of faculty staff to students

The Ratio is 1: 14.



Name	E-mail	University graduation
Prof. dr. Adel Mohammad Zaki	adelmzaki@hotmail.com	Cairo - Egypt
Prof. dr. Muhammad Abd El- Hakiem Ahmad	Hk_elhakiem@yahoo.com	Assiut - Egypt
Prof. dr. Hadi Hussein ben Massoud	hedi_benmessaoud@yahoo.fr	Tunisia
Ass. Prof. Mohammed Shahat Saadani	mohasaadani@yahoo.com	Tanta - Egypt
Ass. Prof Abdel-Moneim Abdel-Hamid Mujahid	A_megahed10@yahoo.com	Tanta - Egypt
Ass. Prof. Khalid Mr. Sweet	drkhaledelhelow@yahoo.com	Helwan - Egypt
Ass. Prof Muhammad Ahmad Herzallah	Mohaherz1975@yahoo.com	Zagazig (Egypt)
Ass. Prof Rabih Abdul Razzaq kalil	<u>kellilrabah@yahoo.fr</u>	Nancy France
Ass. Prof Mohammed Hussein Mohammed Khalaf	Khalfmohammed2003@yahoo.com	Assiut - Egypt
Ass. Prof Salah Abdel Nabi Khafaji	<u>s.khafagy @ mu.edu.sa</u>	Azhar - Cairo
Kamal Muhammad Nazmi Nimer	Kamal.nazmi @ yahoo.com	University of Karachi
Ass. Prof Omar Hassan al-Khalil	ohassan3366@yahoo.com	Cairo - Egypt
Ass. Prof Ahmed Mohammed el- moasry	amoasry@yahoo.com _	South Valley - Egypt
Ass. Prof Ahmed Abd allah Mohamed zedan	Ahmedzedan35@yahoo.com	South Valley + siegen Germany
Ass. Prof Mohammed Omar Mohammed Mahjoub	<u>m.omar @ mu.edu.sa</u>	University of Niles - Sudan
Ass. Prof Mohammed Ahmed Ibrahim Attia	m_ibrahim1971@yahoo.com	South Valley - Egypt
Ass. Prof Nasser Abdul Rahman Gharib	<u>a.abdelrahman @ mu.edu.sa</u>	South Valley - Egypt
Muqrin ALMUQRIN	mogrin.math @ gmail.com	University Onong - Australia
Ahmed Al-Zmami		El qassiem University
Maessad El-Rashidy,		Majmaah University
Mohammed Goze		Majmaah University
Nayef Aboukrnin		Majmaah University
Abdulrahman Baddah		Majmaah University

	Name:	Zaki, Adel Mohamed
000	Academic rank:	Professor
	Specialization:	Mathematics
	Interest area:	Functional Analysis and Algebra
Construction (SELL Discourses)		

1		Name:. Zaki,Adel Mohamed
	100	Academic rank: Professor
		Specialization: Mathematics
		Interest area: Functiona Analysis and Algebra
2		Name: Abd EL-Hakiem, Mohamed
		Academic rank: Professor.
	A	Specialization: Mathematics
	S MA	Interest area: Fluid Mechanic
3		Name: Ben Messaoud, Hadi, .
		Academic rank: Professor
		Specialization: Mathematics
		Interest area: complex analysis
	0	Name: Khafagy, Salah Abdelnaby Elgharieb
4	36	Academic rank: Assistant professor
	1=1	Specialization: Pure Mathematics
		Interest area: Functional Analysis
5	-	Name: El-Saadani, Mohammed El-Shahhat.
		Academic rank: Assistant professor.
		Specialization: Mathematics
	Original	Interest area: Mathematical Statistics
		P a g e <b>8</b>

	ľ	
6	- 4	Name: El-helow, Khaled.
		Academic rank: Assistant professor
		Specialization: Mathematics
		Interest area: Pure Mathematics
		Name: Herz Allah, Mohamed.
7	100	Academic rank: Assistant professor
		Specialization: Mathematics
		Interest area: Functional Analysis
	-	Name:. Khalf, Mohammed
	6-1	Academic rank: Assistant professor
8	1.2.6	Specialization: Mathematics
0	8	Interest area: Topology
0		Name: Megahed, Abd EL-Monem
9	600	Academic rank: Assistant professor
	E	Specialization: Mathematics
		Interest area: Operations Researches
10		Name: Kalil, Rabeh
10		Academic rank: Assistant professor
	le e	Specialization: Mathematics
		Interest area:
		<u> </u>

11		Name: Dr. KHALIL,Omar Hassan
		Academic rank: Assistant professor
		Specialization: Pure Mathematics
	Interest area: Mathematical Analysis	
		Name: Moasry, Ahmed Mohamed.
12	120	Academic rank: Assistant professor
		Specialization: Mathematics
	Interest area: Rough Sets Theory	
13		Name: Zedan , Ahmad Abd Allah Mohamed .
		Academic rank: Assistant professor
	1000	Specialization: Mathematics
		Interest area: Topological Rough Sets
14		Name: Attia, Mohamed Ahmed Ibrahim.
14		Academic rank: Assistant professor
	1361	Specialization: Mathematics
		Interest area: Numerical Analysis
1-		Name: Ghareeb, Abd El-Nasser Abd El-Rahman
15	(==)	Academic rank: Assistant professor.
		Specialization: Mathematics
	A	Interest area: Set Theory, General Topology, Fuzzy Topology, Fuzzy
		Algebra, Applications of Topology
		P a g e <b>10</b>

16	-	Name:. Nazmi, Kamal Nimer	
	the set	Academic rank: Lecturer.	
		Specialization: Mathematics	
		Interest area: Pure Mathematics	
		Name: Mahgoub,Mohammed Omer	
17		Academic rank: Lecturer	
		Specialization:Applied Mathematics	
		Interest area: optimal control	
		Name: ALMUQRIN, Muqrin	
	100	Academic rank: Lecture	
18	AZ	Specialization: Mathematics	
10		Interest area:	
10		Name: Al-Zmami, Ahmed.	
19	1201	Academic rank: Lecture	
		Specialization: Mathematics	
		Interest area:	
20		Name: EL-Gozy, Mohamed	
		Academic rank: Demonstrator	
		Specialization: Mathematics	
		Interest area:	
			P a g e <b>11</b>

21		Name: El-Rashidy, Maessad	
		Academic rank: Demonstrator	
		Specialization: Mathematics	
	Ŧ	Interest area:	
22		Name: Abo Karnein, Naif	
		Academic rank: Demonstrator	
		Specialization: Mathematics	
		Interest area:	
		Name: El_Badah, Abd Rahman	
23		Academic rank: Demonstrator	
		Specialization: Mathematics	
		Interest area:	
24		Name: Aly, Ziad	
		Academic rank: Demonstrator	
		Specialization: Mathematics	
		Interest area:	
25		Name: El-Harby, Sair	
		Academic rank: Demonstrator	
		Specialization: Mathematics	
		Interest area:	
26		Name: Naif, Fareeg	
		Academic rank: Demonstrator	
		Specialization: Mathematics	
		Interest area:	
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# **Possibilities and equipment of Department of mathematics**

The University has established a new building consisting of three floors. The building has good and complete equipment for the education movement. The University's Mathematics Department has allocated a number of diverse faculty rooms; there are single and double rooms with respect faculty staff. Rooms have good ventilation and lighting, cable and wireless NET with good Office furniture. The University also has a number of halls for teaching math program with the participation of other departments in study math courses. The University established the laboratory for computer science with full equipment.

#### **Mathematics department rooms**

The College of science is located in a modern three-story building on the main

Campus and mathematics department is located in the third flour; faculty, staff and students enjoy sufficient classroom space and excellent resources conducive to delivering our degree programs.

Mathematics classroom are fully fitted for laboratory-based activities and have internet wireless capabilities and Smart Boards.

Department of mathematics is located on the second floor loft in the middle of the campus. The mathematics department has 15 different room size, distributed as shown in the preceding figure and with the following tables:

The	Situation room	Other observations
number of		
9	Single	Room size is approximately 2.5 m X3.5 m
5	Double	Room size is approximately 3 m X5 m
1	Single	Chief of section
1	Single	Secretary







Single Room	The room volume is 2.5 m x 3.5 m approximate	
	Kind of Equipment	Number of equipment
	Printer	1
	Mart board tools	1
	Laptop	1
	Trundle	2
	Small table	2
	chair	4
	Desk	1
	Net port	1
	Electric port	2
	Lamp	6
	Computer	1
	Telephone	1

Double Room	The room volume is 3 m x 5 m approximate		
	Kind of Equipment	Number of equipment	
	Printer	1	
	Mart board tools	2	
	Laptop	2	
	Trundle	4	
	Small table	4	
	chair	6	
	Desk	2	
	Net port	2	
	Electric port	4	
	Lamp	8	
	Computer	2	
	Telephone	2	

## <u>Comment</u>

Faculty staff in the mathematics department is involved in colored printing, machine scanner under the auspices of the Commission on quality section.

Department of mathematics requires the following equipment:

<u>Security & safety Committee in Mathematics Department recommends buying the</u> <u>following equipment:</u>

The number of	The kind of	Description
equipment	equipment	
21	computer	Cables and card and table
		its
21	Scanner	
15	Pens for normal	with accessories
	boards	
21	Phone line landline	With the device
1	Fax	Put in the Secretary Office
1	Machine Imaging	Put in the Secretary Office
5	A laptop	With the smart Board tools
10	Printing machine	
21	Cartridges for	
	printers	

# Teaching rooms for students at mathematics department:

Teaching rooms for students of math program are situated on two floors (the second and the third floor) are 7 different size halls. Each Teaching rooms for students up to 20 or 30 students. Teaching rooms for students are well-lit and ventilated. The Teaching rooms for students are air conditioned central air-conditioning hot/cold.

The teaching rooms for students are M1, M2 and M4 in the third floor and M3, M5 and M6 in the second floor. The computer lab founded in M7 at the third floor.

Teaching rooms	The room volume is 10 m x	x 15 m approximate
	Kind of Equipment	Number of equipment
	Smart board tool	1
	Mart board tools	1
	chair	20-30
	Desk	1
	Net port	2
	Electric port	4
	Lamp	18
	Computer	1
	Ordinary boards	1













#### <u>Comments</u>:

Classrooms should be equipped with a two-way communication system for both informational and emergency use.

Classrooms should be equipped with computers, or conduits and data ports, for future installation.

Cabinets in classrooms should have both open and lockable storage. Wall units should have open shelving for books and door cabinets should also be provided.

For special education classrooms where students are using a wheelchair and/or adaptive equipment, additional square footage should be considered to avoid obstruction while navigating the classroom as independently as possible.

<u>Security & safety Committee in Mathematics Department recommends that</u> <u>provision the following equipment:</u>

- 1- Ordinary boards in every hall.
- 2- Monthly maintenance must be done to avoid the crash.
- 3- Drew Maps of the Department classrooms to easily find and access to faculty rooms and halls.
- 4- Create a small library includes research projects for students.
- 5- Provide important books for students of math courses.
- 6- Work table for project hour's laboratory per week from spotter project hours.

# **Meeting Room:**

Faculty members meet monthly at the mathematics department meeting room to discuss problems facing. Department of mathematics seminar held weekly in all disciplines.

meeting rooms	The room volume is 10 m x	15 m approximate
	Kind of Equipment	Number of equipment
	Smart board tool	1
	Mart board tools	1
	chair	14
	Desk	1
	Net port	2
	Electric port	4
	Lamp	10







# Security & safety Committee in Mathematics Department recommends that provision the following equipment:

- Number 8 Chair.
- Blackboard with supplies.

# The library:

A library is a place where there are large numbers of books that are stored on several shelves. Some of the reasons why a library is important for students are it are a treasure-trove of knowledge, it is divided into a number of sections or departments on the basis of certain subjects to learn, and it provides the students a very healthy environment. Another important fact about the importance of libraries for students is that it helps students to keep very good concentration on their studies.



The library is described as the scarcity of books in mathematics and as paper books to understand the scientific article and that it is impossible to rely on electronic sites and e-books so must be pay attention to the library.

Security & safety Committee in Mathematics Department recommends that provision the following equipment:

- 1- The members of the Department of mathematics writing references and books for them in the teaching curricula and scientific research.
- 2- The members of the Department of mathematics writing journals of international journals.
- 3- Copies of the published research of Majmaah University and placed in the University Library.
- 4- Make copies of the dissertation for the Department and placed in the library.
- 5- Exchange of published research in the University and its branches.
- 6- The exchange of master's and doctoral thesis Majmaah University with other universities in the kingdom.

# **The Mosque:**

A mosque is important to Muslims as it is the place they congregate for worship. A mosque is also used by Muslims for dispute settlement and a center for information and education. Mosques are found all over the world and are characterized by elaborate domes and minarets.

The mosque is very important to Muslims because this is their place of worship. It also serves as a center where Muslims come together, exchange information, resolve disputes and also get educated.

A mosque is symbolically important to a Muslim as it is viewed as a humble way for man to recreate pure divine presence on earth. It is the house of prayer in Islam and comes from the common Arabic word, Masjid, which is means place for prostration. Traditionally they were used by the early Muslims for houses of worship and even for other religions.

Other than this, mosques are teaching centers for students learning verses of the Qur'an as well as a community center.



<u>Security & safety Committee in Mathematics Department recommends that</u> <u>provision the following equipment:</u>

- 1- Clarified mapping to knowing the mosque.
- 2- Construct Radio electronic ears for prayer.
- 3- Create a library containing some of the Doctorate Islamic students in scientific disciplines with some magazines.

Samples of Tables Turn on Faculty Staff Mathematics Department

# **1434-1435** H

# **Tables Turn on Faculty Staff**

# Prof. Dr. Adel Mohammed Zaki

<b>C</b>	6	The number of teaching hours				N	
Course name	code	Theoretical hours	Training hours	Practical hours	Credit hours	total teaching hours	notes
Introduction to functional analysis	Math 482	3			3	3	
Real analysis (1)	Math 382	3		1	4	4	
Project						3	
			Teaching load For the Member	Credit hours	10 hours		

day	8-10	10-12	12-1	1—	Notes
				3	
Sunday					
Monday	Office Hours	Office Hours	Functional		
			analysis		
			M6		
Tuesday					
Wednesday	Introduction to	Real analysis			
	functional	(1)			
	analysis	M4			
	M7				
Thursday	Real analysis (1)	Office Hours			
	M4				

# Assist. Prof. Ahmad Zedan

6	<b>C</b>	The number of teaching hours					Neter
name	code	Theoretical hours	Training hours	Practical hours	Credit hours	total teaching hours	Notes
Linear Algebra	Math242 Mat 242- z	3	1		4	4	
Basic of Mathematics	Math231	2	1		3	3	
Preparatory in mathematics		2			2	2	Group 4
Preparatory in mathematics		2			2	2	Group 8
Preparatory in mathematics		2			2	2	Group 9
				Teaching load For the Member	Credit hours	13 hours	

day	8-10	10-12	12-1	1-3	Notes
Sunday	Office Hours			Preparatory in mathematics Group 8	
Monday	Preparatory in mathematics Group 9	Basic of Mathematics M3			
Tuesday					
Wednesday	Office Hours	Linear Algebra <b>M2</b>		Preparatory in mathematics Group 4	
Thursday	Linear Algebra M2	Office Hours			

Lecture Kamal	Nazmi						
	0	The numbe	r of teachi	ng hours			
Course name	Course code	Theoretical hours	Training hours	Practical hours	Credit hours	The total teaching hours	Notes
Mathematics Economy		3				3	
Calculus- Physics (2)	MATH 201-Z	3			3	3	
Preparatory in mathematics						2	
Preparatory in mathematics						2	
Algebra and geometry						3	
				Teaching load For the Member	Credit hours	13 hours	

day	8-10	10-12	12-1	1-3	Notes
Sunday	Office Hours	Algebra and geometry <b>F90</b>			Calculus- Physics (2)
Monday	Office Hours	Calculus- Physics (2)	Mathematics Economy <b>M5</b>		
Tuesday		Preparatory in mathematics Group2		Mathematics Economy M5	
Wednesday					
Thursday	Preparatory in mathematics Group7	Office Hours		Algebra and geometry <b>F091</b>	

# Tables Turn on Classrooms Mathematics Department

1434-1435 H

Tables Turn	Tables Turn on Classrooms								
<b>Mathematics D</b> Level/year at w	Mathematics Department – Faculty of Science (EL_Zulfi)Program(s) in which the course is offered:BSc degree in MathematicsLevel/year at which this course is offered:ThirdLevel – New plan								
day	10 — 8	12 10	112	3 — 1	4 -3	6 - 4			
Sunday		Communication skills							
Monday	Introduction to geometry	Basic of mathema	atics	Economic System in Islam					
	Dr. Mohamed Herz Allah	Dr. Ahmad Zeda	an						
	M7	M3							
Tuesday	Introduction to geometry								
	Dr. Mohamed Herz Allah M7								
Wednesday	Calculus (2)	Principles of the distribution theory							
	Dr. Omar Hassen	Dr. Ahmed Moasry							
	M1	M3							
Thursday	Principles of the distribution theory	Calculus (2)							
	Dr. Ahmed Moasry M3	Dr. Omar Hassen M3							

Level/y	ear at which this course is offered:	Third Level – New plan		
Course Code	Course Name	Credit Hours	<b>Pre-requisites</b>	
Slm103	Economic System in Islam	(0+2)2	-	
Math202	Calculus (2)	(1+3)4	Math101	
Stat 202	Principles of the distribution theory	(1+2)3	Math201+ stat 201	
Math273	Introduction to geometry	(1+2)3		
Math231	Basic of Mathematics	(1+2)3	Math101	
Dar103	Communication skills	(0+2)2	-	
	Total of Credit Hours	17H		

Mathematics Department – Faculty of Science (EL_Zulfi)Program(s) in which the course is offered: BSc degree in MathematicsLevel/year at which this course is offered:Forth Level – New plan							
day	10 — 8	12 10	112	3 — 1	4 -3	6 - 4	
Sunday		Probability (1)					
		Dr. Ahmed moasry M2					
Monday	Calculus in several variables	Calculus Vectors					
	Prof. Dr. Hadi Messoud M2	Prof. Dr. Mohamed hakiem M2					
Tuesday	Calculus Vectors			Calculus in several variables	Probability (1)		
	Prof. Dr. Mohamed hakiem M2			Prof. Dr. Hadi Messoud M2	Dr. Ahmed moasry M3		
		Linear Algebra					
Wednesday		Dr. Ahmad Zedan M2					
	Linear Algebra						
Thursday	Dr. Ahmad Zedan M2						

Level/year at w	which this course is offered:	fourth	Level – New plan
Course Code	Course Name	Credit Hours	<b>Pre-requisites</b>
Math203	Calculus in several variables	(1+2)3	Math202
Math204	Calculus Vectors	(1+2)3	Math202
Math242	Linear Algebra	(1+3)4	Math231
Stat 203	Probability (1)	(1+2)3	Stat 202
	Free course	3	
			-
	Total of Credit Hours	16 H	

Today						
Touay	10 — 8	12 — 10	112	3 — 1	4 -3	6 - 4
Sunday	Introduction in differential equation			Mathematical application on computer		
	Dr. Salah Khafgy			Dr. Mohamed Omar		
	M4			M4		
Monday	Numerical analysis	Linear programing				
	Dr. Mohamed ibrahiem	Dr, Abd monem Megahed				
	M4	M4				
Tuesday	Numerical analysis			Linear programing		
	Dr. Mohamed ibrahiem			Dr, Abd monem Megahed		
	M4			M4		
Wednesday	Introduction in differential equation					
	Dr. Salah Khafgy					
	M4					
Thursday						

Level/yea	r at which this course is offered:	fifth	Level – New plan
Course Code	Course Name	Credit Hours	<b>Pre-requisites</b>
Math321	Introduction in differential equation	(1+3)4	Math202
Math351	Numerical analysis	(1+3)4	Math242
Oper351	Linear programing	(1+3)4	Math242
Math353	Mathematical application on computer	(1+1)2	Math203
	Free course	3	
			-
	Total of Credit Hours	17H	

Today						
Tottay	10 — 8	12 — 10	112	3 — 1	4 -3	6 — 4
Sunday				Group Theory		
				DR. Rabeh Kalil M3		
Monday						
Tuesday	Mathematics methods					
	Dr. Khaled ELHelew M3					
Wednesday		Mathematics methods	Real Analysis(1)		The political system in Islam	
		Dr. Khaled ELHelew M3	Dr. Adel Zaki M4			
Thursday	Real Analysis(1)	Group Theory				
	Dr. Adel Zaki	DR. Rabeh Kalil				
	M4	M3				

Level/year at w	hich this course is offered:	sixth	Level – New plan
Course Code	Course Name	Credit Hours	<b>Pre-requisites</b>
Math326	Mathematics methods	(1+2)3	Math321
Math343	Group Theory	(1+3)4	Math242
SIm 104	The political system in Islam	(0+2)2	Slm101
Math382	Real Analysis(1)	(1+3)4	Math203
	Arbitrary Course	(1+2)3	-
	Total of Credit Hours	16H	

Level/year at wh	nich this course is offered: Se	venth Level – New plan	5 ( ) 2 2 2 2 2			-
Today	10 — 8	12 10	112	3 — 1	4 -3	6 — 4
Sunday		Introduction to topology				
		Dr. Mohamed khalef M3				
Monday				Real analysis (2)		MATH 499
				Dr. Mohamed Khalef M6		
Tuesday	Introduction to topology			Rings and fields		
	Dr. Mohamed khalef			Dr. Rabeh Kalil		
	M3			M6		
Wednesday						MATH499
Thursday		Real analysis (2)		Rings and fields		
		Dr. Mohamed Khalef		Dr. Rabeh Kalil		
		M6		M6		

Level/year at w	hich this course is offered:	seventh	Level – New plan
Course Code	Course Name	Credit Hours	Pre-requisites
Math444	Rings and fields	(1+3)4	Math343
Math471	Introduction to topology	(1+3)4	382Math
499Math	Project	(3+0)3	Pass 90 unit
483Math	Real analysis (2)	(1+3)4	382Math
-	Arbitrary course - Faculty	3	
	Total of Credit Hours	18 H	

Mathematics D	epartment – Faculty of Science (EL	_ <b>Zulfi)</b> Program	n(s) in which the co	ourse is offered: <b>BSc degree in</b>	Mathemat	ics
Today	<b>10 — 8</b>	12 — 10	112	3 — 1	4 -3	6 — 4
Sunday	Complex analysis					
	Dr. Hadi Messoued M6					
Monday	Introduction in partial analysis	Introduction in differential geometry	Functional analysis			
	Dr. Omar Hassen M6	Dr. Mohamed herz allah M1	Dr. Adel Zaki M6			
Tuesday		Complex analysis				
		Dr. Hadi Messoued M6				
Wednesday	Functional analysis	Introduction in differential geometry				
	Dr. Adel Zaki M7	Dr. Mohamed herz allah M6				
Thursday	Introduction in partial analysis					
	Dr. Omar Hassen M6					

Level/year at	t which this course is offered:	Eighth	Level – New plan
Course Code	Course Name	Credit Hours	<b>Pre-requisites</b>
Math422	Introduction in partial analysis	(1+3)4	Math321
Math484	Complex analysis	(1+3)4	Math382
Math472	Introduction in differential geometry	(1+3)4	Math242
	Arbitrary course – Department	3	
Math482	Functional analysis	(0+3)3	Math471
	Total of Credit Hours	18 H	

Today						
	10 8	12 10	112	3 1	4 -3	6 - 4
Sunday		Applied Mathematics				
		M4 - Dr. Mohamed Hakeem				
		Computing Numerical analysis				
		Dr. Mohamed Ibrahim M3				
		Optimization techniques				
		M6 Dr. Abd ELMonem Megahed				
Monday			Mathematical			
			Economics			
			Dr. Kamal Nazmi			
			M5			
Tuesday			Number Theory	Mathematical Economics		
			Dr. Khaled Helow	Dr. Kamal Nazmi		
			M1	M5		
Wednesday	<b>Financial Mathematics</b>					
	Dr. Megran					
	M2					
Thursday	Number Theory			Financial Mathematics		
	Dr. Khaled Helow			Dr. Megran		
	M1			M3		

Level/year at	which this course is offered:		Level – New plan	
Course Code	Course Name	Credit Hours	Pre-requisites	Туре
Math243	Number Theory	(1+2)3	Math231	Free- Arbitrary Department
	Computing Numerical analysis	(1+2)3	Math231	Free- Arbitrary Department
Math411	Applied Mathematics	(1+2)3	Math231	Free- Arbitrary Department
Math404	Financial Mathematics	(1+2)3	Math202	Free- Arbitrary Faculty
Math402	Mathematical Economics	(1+2)3	Math242	Free- Arbitrary Faculty
	Optimization techniques			
	Total of Credit Hours	15H		

#### **Faculty of Science** M1 Classroom **Mathematics Department** Today 10 - 8 10-12 1-12 2 - 1 3 - 2 4-3 6 - 4 Data processing and analysis Sunday Dr. Mohamed Saadni Introduction to differential geometry Monday Dr. Mohamed Herz allah Number **Complex analysis** theory Tuesday Dr. Khaled Dr. Hadi Mesoud Helew Calculus (2) Prediction Method Wednesday Dr. Mohamed Dr. Omar Hassen Saadni Number theory Thursday Dr. Khaled Helew

Faculty	of Science
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# M2 Classroom

# **Mathematics Department**

Today	10 - 8	10	)-12	1-12	2 - 1	3 - 2	4-3	6 — 4	
Sunday		Probab	ility (1)						
Sunuay		Dr. Ahme	d Moasry						
	Calculus in several variables		Calculus vectors						
Monday	Dr. Hadi Messoud		Dr. M. Abd Hakeem						
Tuesday	Introduction in topology				Calculus varia	in several ables			
	Dr. M. Khalef				Dr. Hadi	Messoud			
Wednesday	Financial Mathematics	Linear	algebra						
	Mequran	Dr. Ahma	ad Zedan						
		Calcu	lus (2)						
Thursday		Dr. Oma	r Hassen						

#### Form a plan to improve the standard VII (facilities management and equipment) for the year 1434-1435 Faculty of Science - Zulfi Program: Bachelor of Mathematics Department: Mathematics Area of improvement

Initiatives	Activities	The implementa	tion period	Resources required	Performance indicators	Responsibili implementa	ty for tion	Responsibility for follow-up
		From	То			Basic	Support	
1 Work to provide the department with the latest equipment, which had to be employees of the program to achieve its objectives.	Provide the Administration with the requirements of the program.	10/10/1434	8/10/1435 H	11 desktop 3 printing machine 6 landline 8 smart Whiteboard tools 1 Copier quality 10 scanner	Provide the required needs.	quality unit	resources and equipment committee	Head of department
2. Prepare a plan, in cooperation with the competent authorities to develop and maintain and preserve the devices department	A Committee of members of the program with a mandate to prepare a plan in cooperation with the competent authorities.	10/10/1434	8/10/1435 H	Provision of spare parts and cables for the smart Board while providing all the necessary teaching resources	A maintenance plan and follow- up, and stick to them.	quality unit	resources and equipment	quality unit
3. Provide Labs and classrooms for all the decisions of the program achieve goals	Raise the request to the competent authorities of these requirements and follow up is	10/10/1434	8/10/1435 H	Following completion of the processing plant for students	Provide Labs and classrooms for all the decisions of the program	quality unit	resources and equipment	quality unit

set equipped.	required.			suffice students associate math program	corresponding to the needs of the program.			
4. Place the maintenance plan and the development of the periodic review and evaluation.	Flexible date for the periodic evaluation of the plan, the end of the semester, for example, and stick to it.	10/10/1434	8/10/1435 H	Provide tools and smart Board cable, and retained when the Secretary of the section to facilitate routine maintenance	Evaluation of total assessment plan	quality unit	resources and equipment	quality unit
5. seek to know the scientific research equipment and facilities and circulated to faculty and students in the program can take advantage of them.	Contact the competent authorities to obtain information.	10/10/1434	8/10/1435 H	Bulletin of the latest computer hardware and software for math courses	Provide this information and take advantage of them.	quality unit	resources and equipment	quality unit
6. To provide effective substantive support to the employees of	Select the technical support at the University and make it available to staff and students	10/10/1434	8/10/1435 e		Measuring the	quality unit	resources and equipment	quality unit
the program and its students.	Provide the competent	10/10/2012	10/8/1434	Effective communicatio	degree of satisfaction of	quality unit	resources and	quality unit

a	authority with		n after	beneficiaries of	equipment	
f	feedback on the		graduation	services.		
r	performance of the		and opened			
S	services provided		ways for the			
k	by the technical		solution of			
S	support		problems			
С	department to		faced by			
L	upgrade their		employees of			
r	performance.		the			
			Department			
			after			
			graduation			

# **Report of the seventh standard improvement plan (facilities management and equipment)**

After the inspection and examination of the potential of the department and refer to a plan to improve the Department of Mathematics of the previous year for the seventh standard (facilities management and equipment) Summarize what has been done and what needs to be improved from the following tables:

Initiatives	Activities	Saved	Resources required
1. To provide the department	Provide the Administration with	4 desktop	11 desktop
with the latest version of	the requirements of the program.	5 printing machine (4 normal ink +	3 printing machine
equipment that employees of the		1 colors)	6 landline
program to achieve its			8 smart Whiteboard tools
objectives.			1 Copier quality
			10 scanner
2. Prepare a plan, in cooperation	A Committee of members of the	No cables	Provision of spare parts and cables
with the competent authorities	program with a mandate to		for smart Board
to develop and maintain and	prepare a plan in cooperation with		
preserve the devices section.	the competent authorities.		
3. Provide Labs and classrooms	Raise the request to the competent	It was the beginning of the	Processing plant for the students of
for all the decisions of the	authorities of these requirements	processing plant for students	equal number of students studying
program achieve goals set	and follow up is required.	(under construction)	mathematics
equipped.			

4. Place the maintenance plan	Flexible date for the periodic	Maintenance records was created	Provide tools and smart Board
and the development of the	evaluation of the plan, the end of	to raise the head section	cable, and retained when the
periodic review and evaluation.	the semester, for example, and		Secretary of the section to facilitate
	stick to it.		routine maintenance
5. seek to know the scientific	Contact the competent authorities	What was the collection of	Bulletin of the latest computer
research equipment and	to obtain information.	references to service decisions and	hardware and software for courses
facilities and circulated to		reporting quickly provided	math example c language c and
faculty and students in the			Fortran original
program can take advantage of			
them.			
6. to provide effective	Select the technical support at the	Alumni were contacted and their	Effective communication after
substantive support to the	University and make it available to	contacts	graduation and opened ways for
employees of the program and	staff and students and to provide		the solution of problems faced by
its students.	the competent authority with		employees of the Department after
	feedback on the performance of the		graduation
	services provided by the technical		
	support department to upgrade		
	their performance.		

# **Report of Facilities and Equipment (Overall Rating :\*\*\*)**

Adequate facilities and equipment must be available for teaching and learning in the program of mathematics department. It must be followed up over the use of facilities and equipment, and that the assessment is carried on a regular basis for their adequacy through Consultations with faculty, staff and students.

Much of the responsibility for this standard will rest with institutional rather than program administration. However regardless of who is responsible for provision of facilities and equipment their adequacy can have a significant effect on the quality of a program. In this section comment should be made on matters that impact on the quality of delivery of the program regardless of who has responsibility for them. These matters would include, for example, adequacy of classroom availability and maintenance of equipment, maintenance, and technical support for IT equipment in meeting program needs.

<u>Annex Facilities at mathematics department</u> include sufficient space and state-ofthe-art technology which allow mathematics department to deliver effective and efficient learning and

a conducive learning environment, while good use of these facilities and equipment enable students to take responsibility for their own learning. The use of these facilities and equipment are assessed regularly in terms of their suitability for all stakeholders, i.e. students, faculty members.

The basic components of this standard are:

- Public policy and planning
- Quality of facilities and equipment and adequacy
- Management and administration of the facilities and devices

#### - Information Technology

Comments and a general description of good practice

The facilities must provide consistently healthy environment, safe, and attractive, students, and faculty members, and all those involved in the educational institution, and must conform to the terms of the normal planning and construction, and the requirements of the teaching and learning of high quality.

Relay educational institution use the facilities, and there have procedures to ensure conversion utilities to use a few for other purposes after doing the necessary arrangements for the protection of valuable equipment and easy disrepair.

In programs that require laboratories or technical equipment including computing facilities must be what provides effective maintenance and include regular maintenance scheduled. And there must be a technical support is available with the possibility of immediate response in case of equipment breakdown.

It must provide the classroom needs of all media to help provide effective learning with appropriate technical support.

Evidence and performance indicators Can be obtained to provide evidence of the quality of the facilities, equipment, software and documentation of the planning process, the polls for user satisfaction, and the availability of equipment compared with other educational institutions offering similar programs, as well as through direct observations by the evaluator.

And provide assessments of the status of equipment and maintenance schedules information about the quality and maintenance of the facilities and infrastructure. Regulations and codes of conduct for the use of facilities and equipment are expensive evidence on the quality of management practices such facilities and equipment, and security arrangements. Performance indicators, inter alia degrees polls for user satisfaction, and available statistics on crashes devices, compared to the availability of equipment in the educational institution to those found in other similar institutions.

## **Report on subsections of the standard:**

## **Policy and Planning**

Representatives participate in the program planning process for the provision of facilities and equipment and maintenance, and to ensure the development of appropriate specifications for the needs of the program. And check the provision of facilities and equipment balance between the needs of the program and policies of the educational institution in order to ensure compatibility of systems and resources available.

#### **Optimization**

The university Provided to our department number of laptops and became e very faculty member in our department has a laptop computer, in addition to providing a number of desktop computers to ensure work continuity so they can avoid some of the faults.

The mathematics department council had been consulted the faculty members in the purchase of books approved the teaching program and then compile (tell) all the books to be submitted to the Dean of the College to be provided, taking into account that all the books from the beginning of 2010

Make copies of the records of maintenance facilities for faculty members to avoid faults, and for the continuity of the quality of teaching.

## **Committee's recommendation**

Should be consult with faculty members in the equipment before buying the facilities and equipment's a serious consult and make a timetable for procurement processes and equipment, and be clear to the members of the faculty section.

Must be replace laptops every 5 years until cope with modern software specifications on the difficult that require special drivers for the Department of Mathematics program.

Provide a sufficient number of important equipment to ensure quality example of this photocopiers and scanners, and regular printing machines and colorful printers.

## **Quality of and Adequacy of Facilities**

Must be facilities and equipment have a high degree of quality, with the use of effective strategies to assess the adequacy of the need for the program, and quality, and related services.

#### **Optimization**

The Committee of the Security and Safety unit in mathematics department constructed the full inventory of the contents of the department of the equipment and facilities belonging to faculty members, students and workers building new administration, which moved him the beginning of the academic year 1432 - 1433 H and construct illustrative maps for faculty offices , classrooms for the department , the library public and the mosque to facilitate access to them.

Created computer lab was for the students in the mathematics program and prepares a place for students to receive counseling from the privacy of faculty as well as the offices of the department faculty members.

#### **Committee's recommendation**

Must be continue the operations of Feedback To assess the quality of the user bases on the adequacy of facilities and quality and in addition specific mechanisms to deal with these views and respond to them.

Must be continuing the operations improved facilities for students, staff and faculty members with physical disabilities.

The following table demonstrates side of the main learning facilities in the Department of mathematics:

Class rooms	Computer lab	Video conference room
*7	1	1

\*7 of them are equipped with smart boards.

Besides that, each faculty member has a special office equipped with a PC with required software.

Figures G7.1 and G7.2 shows the overall evaluation of the member's faculty to the quality and adequacy of the classrooms facilities at mathematics department in Majmaah University and KSU University and its tables.

Strongly agree	Agree	True to some extent	Disagree	Strongly Disagree
27	44	23	4	2
	tru	disagree <b>G</b> 4% extent 23%	7.1 strongly disagree 2% strongly agree 27% agree 44%	
Strongly	Agree	True to some	Disagree	Strongly Disagree
agree		extent		
agree	19	extent 48	13	10
agree 10	19	extent 48	13	10
agree	19	extent 48	13	10
agree 10	19	extent 48	13	10



As part of the Questionnaire for faculty's assessment for the College Readiness for the first semester of the academic year 1434/1435H of faculty assured that the classrooms and laboratories they use were ready.

## Safety requirements

- 1- The Department of Safety and Security in the University provides security systems and guards to secure the facilities, Cameras are available thought the facilities with 24 hours monitoring.
- 2- Fire evacuation policy and fire drills are practiced in all places.
- 3- First aid kits are available in all faculties.
- 4- Also, the College has emergency plans, safety signs, emergency exit signs and laboratory safety manuals.

#### Management and Administration

Management must be facilities and equipment and support services to ensure efficient and effective use of the facilities available.

All equipment's in the Department as well as those with the faculty members are recorded in lists in the main store in the university.

The maintenance of this equipment's is available through the main workshop in the University as well as through the workshop in the College. Equipment's which are out of service can be replaced according to the University regulations. Security systems are in available to protect privacy of sensitive personal and institutional information against electronic threats. Also, the security of the equipment's is monitored electronically as well as through the security men available 24 hours on all exit gates in the buildings of the College.

Cleaning services for the infrastructure in the Department as well as get rid of the wastes are available and effective.

#### **Optimization**

The college staff completes lists of equipment for the department with the provision of cleaning and waste disposal adequate and effective.

The department committee construct a tabulator Procedures for Utility Regulation few special department to cope with what the department to serve most of the scientific departments in the branch and the university.

#### **Committee's recommendation**

Must be following a specific procedures and accurate to assess the state of equipment on a regular basis with the provision of the actual maintenance branch with the possibility of substitution in the case of strong breakdown.

The main equipment's needed for the research purposes for faculty members in the Department of mathematics are PC computers, which are available for all faculty members in their offices, and uploaded with required software and connected to internet points.

Also, these requirements are available in the computer labs in the Department.

#### **Information Technology**

Must be computers, software and related support services is suitable for the program, and managed so as to ensure optimal use, effective and safe to them.

IT department was an area of improvement in the past so it is one of the priorities of the strategic plan. Working in accordance with the Strategic Plan, significant additions and enhancements

Were successfully implemented like:

1) Installed the latest hardware

2) Network infrastructure

3) Internet bandwidth expanded and services upgraded

4) An upgrade to smart classrooms throughout the University

Each faculty members is provided with a laptop computer and a college wide wireless internet service is provided. Technical Support is provided around the clock. Security systems are in place to protect privacy of sensitive personal and institutional information and to protect against externally introduced viruses.

# **Optimization**

College provides all faculty members with portable computing devices provide some special services smart boards.

Collage Created computer lab to a special section so that all the students of the program to associate the use of automated ancestry and Inter Net.

The college provided for each faculty member port has its own Internet quickly satisfactory.

The mathematics department organizes some technical workshops among faculty members teaching and scientific research How to use some of the sites to improve elearning.

# **Committee's recommendation**

Must be available Opportunities for faculty to present their views regarding the plans for the purchase, maintenance and replacement of equipment and software in the enterprise.

# **Evaluation of facilities and equipment for the program**

- 1- Computer labs are equipped with computers and software .
- 2- Classrooms equipped with both blackboards and smart boards.
- 3- Existence of Video conference rooms.
- 4- Existence of information security systems against electronic threats.