

Kingdom of Saudi Arabia Ministry of Higher education

Majmaah University
College Of Sciences
Department of Mathematics


# Facilities and Equipment 



جامـعـة المجمعة
Majmaah University

2013-1434

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## 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 | $\mathbf{2}$ |
| Demonstrator | 3 | - | 3 |
| Scholarship | 4 | - | $\mathbf{4}$ |
| Total |  | 17 | $\mathbf{9}$ |

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


Illustration shows the overall non-Saudi Arabia

The proportion of non-Saudi Arabia 34.6\%


Illustration shows the ratio of faculty staff to students

The Ratio is 1: 14.



|  | Name: | Zaki, Adel Mohamed |
| :--- | :--- | :--- |
|  | Academic rank: | Professor |
|  | Specialization: | Mathematics |
|  | Interest area: | Functional Analysis and Algebra |



| Academic rank: Assistant professor |  |
| :--- | :--- |
| Specialization: Mathematics |  |
| Interest area: Pure Mathematics |  |
| 8 | Academic rank: Assistant professor |
| 8 | Specialization: Mathematics |
| Interest area: Functional Analysis |  |
|  |  |


| 11 |  | Name: Dr. KHALIL,Omar Hassan |
| :---: | :---: | :---: |
|  |  | Academic rank: Assistant professor |
|  |  | Specialization: Pure Mathematics |
|  |  | Interest area: Mathematical Analysis |
| 12 |  | Name: Moasry, Ahmed Mohamed. |
|  |  | Academic rank: Assistant professor |
|  |  | Specialization: Mathematics |
|  |  | Interest area: Rough Sets Theory |
| 13 |  | Name: Zedan , Ahmad Abd Allah Mohamed . |
|  |  | Academic rank: Assistant professor |
|  |  | Specialization: Mathematics |
|  |  | Interest area: Topological Rough Sets |
| 14 |  | Name: Attia, Mohamed Ahmed Ibrahim. |
|  |  | Academic rank: Assistant professor |
|  |  | Specialization: Mathematics |
|  |  | Interest area: Numerical Analysis |
| 15 |  | Name: Ghareeb, Abd El-Nasser Abd El-Rahman |
|  |  | Academic rank: Assistant professor. |
|  |  | Specialization: Mathematics |
|  |  | Interest area: Set Theory, General Topology, Fuzzy Topology, Fuzzy Algebra, Applications of Topology |


| 16 |  | Name:. Nazmi, Kamal Nimer |
| :---: | :---: | :---: |
|  | $\cdots$ | Academic rank: Lecturer. |
|  |  | Specialization: Mathematics |
|  |  | Interest area: Pure Mathematics |
| 17 |  | Name: Mahgoub,Mohammed Omer |
|  |  | Academic rank: Lecturer |
|  |  | Specialization:Applied Mathematics |
|  |  | Interest area: optimal control |
| 18 |  | Name: ALMUQRIN, Muqrin |
|  | $\square \rightarrow$ | Academic rank: Lecture |
|  |  | Specialization: Mathematics |
|  |  | Interest area: |
| 19 |  | Name: Al-Zmami, Ahmed. |
|  |  | Academic rank: Lecture |
|  | 祡 | Specialization: Mathematics |
|  |  | Interest area: |
| 20 |  | Name: EL-Gozy, Mohamed |
|  |  | Academic rank: Demonstrator |
|  |  | Specialization: Mathematics |
|  |  | Interest area: |



## 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 <br> number of | Situation room | Other observations |
| :--- | :--- | :--- |
| $\mathbf{9}$ | Single | Room size is approximately 2.5 <br> m X 3.5 m |
| $\mathbf{5}$ | Double | Room size is approximately 3 m <br> X5 m |
| $\mathbf{1}$ | Single | Chief of section |
| $\mathbf{1}$ | Single | Secretary |




| Single Room | The room volume is $\mathbf{2 . 5} \mathbf{m} \mathbf{x} \mathbf{3 . 5} \mathbf{m}$ 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 $\mathbf{3 m \times 5 ~ m}$ 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 |

## Comment

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:
Security \& safety Committee in Mathematics Department recommends buying the following equipment:

| The number of <br> equipment | The kind of <br> equipment | Description |
| :--- | :--- | :--- |
| $\mathbf{2 1}$ | computer | Cables and card and table <br> its |
| $\mathbf{2 1}$ | Pens for normal <br> boards | with accessories |
| $\mathbf{1 5}$ | Phone line landline | With the device |
| $\mathbf{2 1}$ | Fax | Put in the Secretary Office |
| $\mathbf{1}$ | Machine Imaging | Put in the Secretary Office |
| $\mathbf{5}$ | A laptop | With the smart Board tools |
| $\mathbf{1 0}$ | Printing machine |  |
| $\mathbf{2 1}$ | Cartridges for <br> 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 mx 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 |



# The Mathematics Department classrooms in the Second Flour 

Ms math Classroom


Mó math Classroom

M6 math Classroom





## Comments:

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.

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

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 <br> The room volume is $10 \mathrm{~m} \times 15 \mathrm{~m}$ 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.


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

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 <br> Turn on <br> Faculty Staff <br> Mathematics Department <br> 1434-1435 H 

Tables Turn on Faculty Staff
Prof. Dr. Adel Mohammed Zaki

| Course <br> name | Course <br> code | The number of teaching hours |  |  |  | The |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | Training <br> hours | Practical <br> hours | Credit <br> hours | Thetes <br> total <br> teaching <br> hours | Not |  |
| Introduction <br> to functional <br> analysis | Math <br> 482 | 3 |  | 3 | 3 |  |  |
| Real <br> analysis (1) | Math <br> 382 | 3 |  | 1 | 4 | 4 |  |
| Project |  |  |  |  |  | 3 |  |


| day | $\mathbf{8 - 1 0}$ | $\mathbf{1 0 - 1 2}$ | $\mathbf{1 2 - 1}$ | $\mathbf{1 -}$ <br> $\mathbf{3}$ | Notes |
| :---: | :---: | :---: | :--- | :--- | :--- |
| Sunday |  |  |  |  |  |
| Monday | Office Hours | Office Hours | Functional <br> analysis <br> M6 |  |  |
| Tuesday |  | Wednesday | Introduction to <br> functional <br> analysis <br> M7 | Real analysis <br> (1) <br> M4 |  |
| Thursday | Real analysis (1) <br> M4 | Office Hours |  |  |  |

Assist. Prof. Ahmad Zedan

| Course name | Course code | The number of teaching hours |  |  |  | The <br> total <br> teaching <br> hours | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Theoretical hours | Training hours | Practical hours | Credit hours |  |  |
| Linear Algebra | Math242 <br> Mat 242- <br> Z | 3 | 1 |  | 4 | 4 |  |
| Basic of Mathematics | Math231 | 2 | 1 |  | 3 | 3 |  |
| Preparatory in mathematics |  | 2 |  |  | 2 | 2 | $\begin{aligned} & \text { Group } \\ & 4 \end{aligned}$ |
| Preparatory in mathematics |  | 2 |  |  | 2 | 2 | $\begin{aligned} & \text { Group } \\ & 8 \end{aligned}$ |
| Preparatory in mathematics |  | 2 |  |  | 2 | 2 | $\begin{aligned} & \text { Group } \\ & 9 \end{aligned}$ |
|  |  |  |  | Teaching load For the Member | Credit hours | $\begin{aligned} & 13 \\ & \text { hours } \end{aligned}$ |  |


| day | $\mathbf{8 - 1 0}$ | $\mathbf{1 0 - 1 2}$ | $\mathbf{1 2 - 1}$ | $\mathbf{1 - 3}$ | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sunday | Office Hours |  |  | Preparatory in <br> mathematics <br> Group 8 |  |
| Monday | Preparatory in <br> mathematics <br> Group 9 | Basic of <br> Mathematics <br> M3 |  |  |  |
| Tuesday |  |  |  |  |  |
| Wednesday | Office Hours | Linear <br> Algebra <br> M2 | Preparatory in <br> mathematics <br> Group 4 |  |  |
| Thursday | Linear Algebra <br> M2 | Office Hours |  |  |  |


| Course name | Course code | The number of teaching hours |  |  |  | The total teaching hours | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Theoretical hours | Training hours | Practical hours | Credit hours |  |  |
| Mathematics Economy |  | 3 |  |  |  | 3 |  |
| CalculusPhysics (2) | $\begin{aligned} & \text { MATH } \\ & \text { 201-Z } \\ & \hline \end{aligned}$ | 3 |  |  | 3 | 3 |  |
| Preparatory in mathematics |  |  |  |  |  | 2 |  |
| Preparatory in mathematics |  |  |  |  |  | 2 |  |
| Algebra and geometry |  |  |  |  |  | 3 |  |
|  |  |  |  | Teaching load For the Member | Credit hours | $\begin{array}{\|l\|} \hline 13 \\ \text { hours } \end{array}$ |  |


| day | $\mathbf{8 - 1 0}$ | $\mathbf{1 0 - 1 2}$ | $\mathbf{1 2 - 1}$ | $\mathbf{1 - 3}$ | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sunday | Office Hours | Algebra and <br> geometry <br> F90 |  |  | Calculus- <br> Physics <br> $(2)$ |
| Monday | Office Hours | Calculus- <br> Physics (2) | Mathematics <br> Economy <br> M5 |  |  |
| Tuesday |  | Preparatory <br> in <br> mathematics <br> Group2 |  | Mathematics <br> Economy <br> M5 |  |
| Wednesday |  |  |  |  |  |
| Thursday | Preparatory <br> in | Office Hours |  | Algebra and <br> geometry <br> F091 |  |
| mathematics <br> Group7 |  |  |  |  |  |

# Tables <br> Turn on <br> Classrooms Mathematics Department 

## 1434-1435 H

## Tables Turn on Classrooms

Mathematics Department - Faculty of Science (EL_Zulfi) Program(s) in which the course is offered: BSc degree in Mathematics Level/year at which this course is offered: Third Level - New plan

| day | 10 - 8 | $12-10$ | 1---12 | $3-1$ | 4-3 | 6-4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sunday |  | Communication skills |  |  |  |  |
| Monday | Introduction to geometry | Basic of mathematics |  | Economic System in Islam |  |  |
|  | Dr. Mohamed Herz Allah M7 | Dr. Ahmad Zedan M3 |  |  |  |  |
| Tuesday | Introduction to geometry |  |  |  |  |  |
|  | Dr. Mohamed Herz Allah M7 |  |  |  |  |  |
| Wednesday | Calculus (2) | Principles of the distribution theory |  |  |  |  |
|  | Dr. Omar Hassen M1 | Dr. Ahmed Moasry M3 |  |  |  |  |
| Thursday | Principles of the distribution theory | Calculus (2) |  |  |  |  |
|  | Dr. Ahmed Moasry M3 | Dr. Omar Hassen M3 |  |  |  |  |


| Level/year at which this course is offered: |  | Third Level - New plan |  |
| :---: | :---: | :---: | :---: |
| Course Code | Course Name | Credit Hours | Pre-requisites |
| 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 | $\mathbf{1 7 H}$ |  |

Mathematics Department - Faculty of Science (EL_Zulfi)
Program(s) in which the course is offered: BSc degree in Mathematics
Level/year at which this course is offered:
Forth Level - New plan


| Level/year at which this course is offered: | fourth | Level - New plan |  |
| :---: | :---: | :---: | :---: |
| Course Code | Course Name | Credit Hours | Pre-requisites |
| 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 |  |
|  |  |  | - |

Mathematics Department - Faculty of Science (EL_Zulfi)
Program(s) in which the course is offered: BSc degree in Mathematics
Level/year at which this course is offered: Fifth Level - New plan

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


| Level/year at which this course is offered: | fifth | Level - New plan |  |
| :---: | :---: | :---: | :---: |
| Course Code | Course Name | Credit Hours | Pre-requisites |
| 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 | $\mathbf{1 7 H}$ | - |


| Mathematics Department - Faculty of Science (EL_Zulfi) |  |  | Program(s) in which the course is offered: BSc degree in Mathematics |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Level/year at which this course is offered: Sixth Level - New plan |  |  |  |  |  |  |
| Today | 10 - 8 | $12-10$ | 1---12 | $3-1$ | 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 M4 | DR. Rabeh Kalil M3 |  |  |  |  |


| Level/year at which this course is offered: | sixth | Level - New plan |  |
| ---: | :---: | ---: | ---: |
| Course Code | Course Name | Credit Hours | Pre-requisites |
| Math326 | Mathematics methods | $(1+2) 3$ | Math321 |
| Math343 | Group Theory | $(1+3) 4$ | Math242 |
| Slm 104 | The political system in Islam | $(0+2) 2$ | Slm101 |
| Math382 | Real Analysis(1) | $(1+3) 4$ | Math203 |
| ---- | Arbitrary Course | $(1+2) 3$ | - |

Mathematics Department - Faculty of Science (EL_Zulfi)
Program $(\mathrm{s})$ in which the course is offered: BSc degree in Mathematics
Level/year at which this course is offered: Seventh Level - New plan

| Today | $10-8$ | $12-10$ | 1 ----12 | $3-1$ | 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 M3 |  |  | Dr. Rabeh Kalil M6 |  |  |
| Wednesday |  |  |  |  |  | MATH499 |
|  |  |  |  |  |  |  |
| Thursday |  | Real analysis (2) |  | Rings and fields |  |  |
|  |  | Dr. Mohamed Khalef M6 |  | Dr. Rabeh Kalil M6 |  |  |


| Level/year at which 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 | ------ |
|  |  |  |  |

Mathematics Department - Faculty of Science (EL_Zulfi)
Level/year at which this course is offered:
Eighth Level - New plan

| Today | 10 - 8 | 12 - 10 | 1---12 | $3-1$ | 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 which this course is offered: | Eighth | Level - New plan |  |
| :---: | :---: | ---: | ---: |
| Course Code | Course Name | Credit Hours | Pre-requisites |
| 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 |

## Mathematics Department - Faculty of Science (EL_Zulfi) <br> Program(s) in which the course is offered: BSc degree in Mathematics

Level/year at which this course is offered: Free and Arbitrary Courses in Mathematics Program - New plan

| Today | 10 - 8 | $12-10$ | 1---12 | $3-1$ | 4-3 | 6-4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sunday |  | Applied Mathematics <br> M4 - Dr. Mohamed Hakeem Computing Numerical analysis <br> Dr. Mohamed Ibrahim M3 |  |  |  |  |
|  |  | Optimization techniques <br> M6 Dr. Abd ELMonem Megahed |  |  |  |  |
| Monday |  |  | Mathematical Economics |  |  |  |
|  |  |  | Dr. Kamal Nazmi M5 |  |  |  |
| Tuesday |  |  | Number Theory | Mathematical Economics |  |  |
|  |  |  | $\begin{gathered} \hline \text { Dr. Khaled Helow } \\ \text { M1 } \end{gathered}$ | Dr. Kamal Nazmi M5 |  |  |
| Wednesday | Financial Mathematics |  |  |  |  |  |
|  | Dr. Megran M2 |  |  |  |  |  |
| Thursday | Number Theory |  |  | Financial Mathematics |  |  |
|  | Dr. Khaled Helow M1 |  |  | $\begin{gathered} \text { Dr. Megran } \\ \text { M3 } \end{gathered}$ |  |  |


| Level/year at which this course is offered: | Level - New plan |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Course Code | Course Name | Credit Hours | Pre-requisites | Type |
| 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 | $\mathbf{1 5 H}$ |  |  |

## Faculty of Science M1 Classroom <br> Mathematics Department

| Today | 10-8 | 10-12 | 1-12 | 2-1 | 3-2 | 4-3 | 6-4 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sunday |  |  |  | Data processing and analysis |  |  |  |  |
|  |  |  |  | Dr. Mohamed Saadni |  |  |  |  |
| Monday |  | Introduction to differential geometry |  |  |  |  |  |  |
|  |  | Dr. Mohamed Herz allah |  |  |  |  |  |  |
| Tuesday |  | Complex analysis | Number theory |  |  |  |  |  |
|  |  | Dr. Hadi Mesoud | Dr. <br> Khaled <br> Helew |  |  |  |  |  |
| Wednesday | Calculus (2) |  |  | Predicti | Method |  |  |  |
|  | Dr. Omar Hassen |  |  | $\begin{array}{r} \text { Dr. M } \\ \text { Sa } \end{array}$ | med <br> ni |  |  |  |
| Thursday | Number theory |  |  |  |  |  |  |  |
|  | Dr. Khaled Helew |  |  |  |  |  |  |  |

Faculty of Science
Mathematics Department

| Today | 10-8 | 10-12 | 1-12 | 2-1 | 3-2 | 4-3 | $6-4$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sunday | Probability (1) |  |  |  |  |  |  |  |
|  | Dr. Ahmed Moasry |  |  |  |  |  |  |  |
| Monday | Calculus in several variables | Calculus vectors |  |  |  |  |  |  |
|  | Dr. Hadi Messoud | Dr. M. Abd Hakeem |  |  |  |  |  |  |
| Tuesday | Introduction in topology |  |  | Calculus in several variables |  |  |  |  |
|  | Dr. M. Khalef |  |  | Dr. Had | essoud |  |  |  |
| Wednesday | Financial Mathematics | Linear algebra |  |  |  |  |  |  |
|  | Mequran | Dr. Ahmad Zedan |  |  |  |  |  |  |
| Thursday |  | Calculus (2) |  |  |  |  |  |  |
|  |  | Dr. Omar 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 implementation period |  | Resources required | Performance indicators | Responsibility for implementation |  | Responsibility for follow-up |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | From | To |  |  | 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 <br> and <br> 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 followup, and stick to them. | quality unit | resources <br> and <br> 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 <br> and <br> equipment | quality unit |


| set equipped. | required. |  |  | suffice <br> students <br> associate <br> 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 <br> 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 <br> and equipment | quality unit |
| 6. To provide effective substantive support to the employees of the program and its students. | Select the technical support at the University and make it available to staff and students | 10/10/1434 | 8/10/1435 e |  | Measuring the degree of satisfaction of | quality unit | resources <br> and <br> equipment | quality unit |
|  | Provide the competent | 10/10/2012 | 10/8/1434 | Effective communicatio |  | quality unit | resources and | quality unit |
| \| P a g e 44 |  |  |  |  |  |  |  |  |


|  | authority with <br> feedback on the <br> performance of the <br> services provided <br> by the technical <br> support <br> department to <br> upgrade their <br> performance. |  | $n$ after <br> graduation <br> and opened <br> ways for the <br> solution of <br> problems <br> faced by <br> employees of <br> the <br> Department <br> after <br> graduation | beneficiaries of <br> services. |  | equipment |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

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

$\left.\begin{array}{|l|l|l|l|}\hline \begin{array}{l}\text { 4. Place the maintenance plan } \\ \text { and the development of the } \\ \text { periodic review and evaluation. }\end{array} & \begin{array}{l}\text { Flexible date for the periodic } \\ \text { evaluation of the plan, the end of } \\ \text { the semester, for example, and } \\ \text { stick to it. }\end{array} & \begin{array}{l}\text { Maintenance records was created } \\ \text { to raise the head section }\end{array} & \begin{array}{l}\text { Provide tools and smart Board } \\ \text { cable, and retained when the } \\ \text { Secretary of the section to facilitate } \\ \text { routine maintenance }\end{array} \\ \hline \begin{array}{l}\text { 5. seek to know the scientific } \\ \text { research equipment and } \\ \text { facilities and circulated to } \\ \text { faculty and students in the } \\ \text { program can take advantage of } \\ \text { them. }\end{array} & \begin{array}{l}\text { Contact the competent authorities } \\ \text { to obtain information. }\end{array} & \begin{array}{l}\text { What was the collection of } \\ \text { references to service decisions and } \\ \text { reporting quickly provided }\end{array} & \begin{array}{l}\text { Bulletin of the latest computer } \\ \text { hardware and software for courses } \\ \text { math example c language c and }\end{array} \\ \text { Fortran original }\end{array}\right\}$

## 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.

Annex Facilities at mathematics department include sufficient space and state-of-the-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 $1432-1433 \mathrm{H}$ 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 <br> agree | Agree | True to some <br> extent | Disagree | Strongly Disagree |
| :--- | :--- | :--- | :--- | :--- |
| 27 | 44 | 23 | 4 | 2 |



| Strongly <br> agree | Agree | True to some <br> extent | Disagree | Strongly Disagree |
| :--- | :--- | :--- | :--- | :--- |
| $\mathbf{1 0}$ | 19 | 48 | 13 | 10 |



As part of the Questionnaire for faculty's assessment for the College Readiness for the first semester of the academic year $1434 / 1435 \mathrm{H}$ 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.

