


# Mathematics program Guide <br> <br> college of Science 

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## Overview of the Mathematics program

The Department of Mathematics is one of the departments in the College of Science. The Department of Mathematics was established in $1423 \mathrm{H}(2002)$, since then, it has grown both in reputation and stature, upholding the traditions, mission and vision of the College and the intake of male and female students has been increased in most of the university's colleges where Mathematics is the language of all applied sciences. The department includes about (32) members and faculty members of various scientific ranks (professor, associate professor and assistant professor) and they are assisted by about (25) lecturers, teaching assistants Lecturers, there are many disciplines such as analysis, algebra, topology, numerical analysis and applied mathematics. The student gets a bachelor's degree in science with a mathematics specialization if he successfully passes 134 units of study Program, with a GPA of (2.0) out of (5) as the minimum requirement. The department has contributed to providing the labor market with qualified graduates to work in the education sector as teachers in the various stages of education. God willing, will be a new scientific breakthrough on the level of the Kingdom of Saudi Arabia.

## Head of Department Speech

Praise be to Allah
it is an honor of mine to welcome your visit to the site of our department of Mathematics at the Faculty of Science at Jouf University. The department of mathematics it introduce the Mathematics, its plans, courses, scientific research and scientific activities. The department seeks to be in the ranks of the leading and distinguished academic departments. Mathematics is of paramount importance as mathematics is the basis of science and the oldest of its kind throughout the ages. It has also contributed and continues to contribute effectively to the technical and technological development witnessed by the entire world. The department offers one academic program in mathematics to obtain a bachelor's degree and also offers a new master of science in mathematics, which includes two tracks namely: pure mathematics and applied mathematics. The mathematics department teaches the various subjects of pure and applied mathematics as well as the statistical materials of the other various departments in the college and the university aided by a distinguished staff in the fields of scientific research and education.

In conclusion, we gladly welcome any point of view and we are open to criticism that may contribute to the advancement and development of this website.

Head of Mathematics Department The department includes several research groups in different disciplines that publish in prestigious international scientific journals. We always welcome you and confirm our readiness to provide scientific and research content for the upliftment of society and the nation.

## Head of Mathematics Department

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Head of Department
Dr.Mohammed Aldandani

## Contact US

## Contact【び॥fo

## Head of Department

## Dr．Mohammed Aldandani ：maldandani＠ju．edu．sa

Female Branch coordinator

Dr．Yamnah Alruwaili：ymnah＠ju．edu．sa


# Vision, Mission and Objective of Mathematics Program 

## Visions

Leadership and excellence in providing high-quality education and scientific research in the field of mathematics and its applications to serve the community.

## Missjons

Providing knowledge and skills in the field of mathematics and its applications to achieve educational, research and community outcomes.

## Objectives:

- To provide training courses in the field of mathematics and its applications to the relevant community members.
- To apply quality standards to the Bachelor of Mathematics to align its graduates with the labor market ongoing needs.
- To prepare qualified graduates in the field of mathematics and its applications.
- To train students to use software packages in the field of mathematics.
- To provide scientific research outputs in the field of mathematics and its applications.

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## Program Structural Organization

## Organizational Structure for the Bachelor in Mathematics Program



## Department members

| No. | Name | Academic <br> Degree | Academic Rank |
| :---: | :--- | :---: | :---: |
| 1 | Mohammed Aldandani | PhD | Assistant Professor |
| 2 | Bader LafiAlruwaili | PhD | Assistant Professor |
| 3 | Samir El MohammadyAttia | PhD | Assistant Professor |
| 4 | HadiObaidAlshammari | PhD | Assistant Professor |
| 5 | Ould Ahmed Mahmoud Sid Ahmed | PhD | Professor |
| 6 | AbdelmohsenAlroweili | PhD | Assistant Professor |
| 7 | Hassen El AbidiArfaoui | PhD | Assistant Professor |
| 8 | Eid Sayed Kamel Sayed | PhD | Assistant Professor |
| 9 | Naeem Ahmad | PhD | Assistant Professor |
| 10 | Sid Ahmed OuldBeinane | Assistant Professor |  |
| 11 | MaawiyaOuldSidi | PhD | Associate Professor |
| 12 | FathyHamdiRiadAbd Allah | PhD | Assistant Professor |
| 13 | Mohamed Ibrahim Mohamed Youssef | PhD | Assistant Professor |
| 14 | JawharMohamed Hbil | PhD | Assistant Professor |
| 15 | Mohamed MoncefKharrat | PhD | Assistant Professor |
| 16 | AbdellatifAbderrazek Ben Makhlouf | PhD | Assistant Professor |


| 17 | El-sayedAbdelraoof Mohamed El-hady | PhD | Assistant Professor |
| :---: | :--- | :---: | :---: |
| 18 | Ahmed Mohamed Ahmed Ahmed | PhD | Professor |
| 19 | Nour abdelmawla abdelmawgoud Zidan | PhD | Associate Professor |
| 20 | Hacen Mecheri | PhD | Associate Professor |
| 21 | Tarek Emam Mohamed Emam | PhD | Associate Professor |
| 22 | Ayoub Basheer Mohammed Basheer | PhD | Associate Professor |
| 23 | Amr Mohamed Adel Ahmed Radwan | PhD | Assistant Professor |
| 24 | HeniNemi | PhD | Assistant Professor |
| 25 | Abeer Bent Youssef El Hacheech | PhD | Assistant Professor |
| 26 | Abeer Bent Abdallah Aldhimen | PhD | Assistant Professor |
| 27 | DalelAwadhAkelAlruweili | PhD | Assistant Professor |
| 28 | Aydah Mohammad Al Ahmadi | PhD | Assistant Professor |
| 29 | Ymnah Salah Alruwaily | PhD | Assistant Professor |
| 30 | MunaBallaElshareef Mohammed | PhD | Associate Professor |
| 31 | Jihene Abdelhamid Legha | PhD | Assistant Professor |
| 32 | Hanene Noureddine Ferchichi | PhD | Assistant Professor |
| 33 | Ibrahim Omer Ahmed Albudawe | PhD | lecturer |
| 34 | Ahmed Sarosh | Master's | lecturer |
| 35 | Rizwana Parveen | Master's | lecturer |

## The main research areas of the program

| Priority | Research field |
| :--- | :--- |
|  |  |
|  | - Bioinformatics |
| - Applied Mathematics |  |
| Advanced Scientific Computing | - Artificial Intelligence Applications |
| Researches | - Statistics \& Operations Research |
|  | - Quantum information |
|  | - Modeling \& Simulation |
|  |  |
|  |  |

## Program Advisory Board

* The program has an advisory committee, the members are selected to represent a cross section of Mathematics with representatives from many different disciplines within the field; a cross section of institutional stalk holders of industries and local governmental institutions, and students are represented. It meets twice in the academic term; one meeting before the beginning of the term and the second by the end.

Main Tasks include the following

* Reviewing and discussing the vision, mission, and objectives of the program to determine their compatibility with the labor market.
* Discuss study plans and course descriptions to determine the extent to which the outcomes of the educational process are compatible with the labor market.
* Determining the requirements of the program to raise and develop performance in the methods of education and training in line with the labor market.
* Aid in mentoring of graduate students and provide critical feedback on the student's ideas and progress.
* Discussing the current and future situation facing the program and working to develop it.
* Reviewing and evaluating the strategic plan of the program, to ensure that it is on the right track; keeping abreast of the college and university's plan and the Kingdom's vision 2030.
* Discussing and evaluating the program's operational plan.
* Discussing the performance indicators report
* Discussing the annual Progress Report form to identify strengths and weaknesses and to make specific recommendations for future improvement

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## Mathematics program admission requirements

$>$ Applicants for Mathematics program must meet the entry requirements set by the College of science and the Deanship of Admissions and Registration. meet any other criteria specified by the University Council.
$>$ This is according to the admission guide announced on the website of the Deanship of Admission and Registration:
$>$ The application is made electronically according to the electronic portal guide for admission announced on the Deanship of Admission and Registration.





جاهعة الجوف

## Admission and registration

## First:

The Department Council determines the number of students to be admitted in the upcoming academic year according to the available capabilities

## Second:

## Admission of prospective students requires the following conditions:

The applicant must hold the General Secondary Certificate or its equivalent from inside or outside Saudi Arabia.

- The General Secondary Certificate or its equivalent must have been obtained within the last five years (Exceptions can only be decided by the University Council in light of persuasive reasons).
- The applicant must enjoy a good conduct.
- The applicant must pass any interviews or tests decided by the Department Council.
- The applicant must be medically fit.
- The applicant must obtain an approval to the study from his/ her employer if he/she works in any government or private institution.
- The applicant must meet any other conditions determined and announced by the University Council at the time of application.


## Third:

- Selection of admitted students from applicants who meet all admission requirements is taken on the basis of their grades in the general secondary certificate, personal interviews and admission tests (if any).


## Fourth:

International Students
The department applies the admission requirements for international students set by the university as follows:

- The applicant must hold the General Secondary Certificate or its equivalent from inside or outside Saudi Arabia.
- The General Secondary Certificate or its equivalent must have been obtained within the last five years.
- The age of the applicant should not be less than 17 years and not more than 25 years
- The applicant must have passed the National Center for Capacity Assessment test for internal scholarships (achievement for scientific faculties).
- The applicant must have a valid legal residence (for internal scholarships)
- The applicant must pass any interviews or tests decided by the Department Council.
- The applicant has never been accepted as a scholarship student at Jouf University or any other educational institution in Saudi Arabia.
- The student should not be dismissed from Jouf University or any other university for disciplinary reasons
- The applicant must meet any other conditions determined and announced by the University Council at the time of application.
- The applicant must obtain an approval to the study from his/ her employer if he/she works in any government or private institution.
- The applicant must meet any other conditions determined and announced by the University Council at the time of application
Fifth:
students with special needs
- students with special needs who are eligible for aptitude and achievement tests are accepted, with the exception of students with visual disabilities based on the decision of the Director of the National Center for Measurement and Evaluation in Higher Education No. 575/A on 12/22/1431 AH
- The program sets additional conditions for the admission of students with special needs, such as
- No visual impairment
- No hearing impairment


## Sixth:

Student registration in the program

## First- Early Registration:

The process of early registration can be done according to the mechanism set out by the Deanship of Admission and Registration in coordination with colleges

## Second - Formal Registration:

1. The student is allowed to register or drop the courses he/she wishes to study as follows:
A. He/she can register the courses he / she wishes to study one week before the beginning of the semester and before the end the first week of the semester.
B. He/she can drop courses that he does not want to study during the period specified by the university calendar.
C. The registration must not exceed the maximum limit of the academic load and not less than the minimum limit as mentioned below in this rule.
2. The registration process of a student's courses is done after consultation with his/her academic advisor, where the student is responsible about any failure or errors resulted from his/her ignorance of instructions.
3. The student him/herself must carry out the registration process, and he/she is not entitled to appoint a representative on his behalf at all.
4. The registration process can be done automatically to certain college students or students of a certain level if necessary
5. In case a student does not register any course during the regular registration period, he/she is considered a discontinued student.

## Third: Registration Approval:

1. In the case of automatic registration, the student must approve his/her schedule in his/her personal profile on the University system during the deletion and addition period.
The student is suspended from the study and described in the computer system as "discontinued due to nonregistration" if he did not approve his/her schedule during the deletion and addition period.

## Fourth: Study Load

The study load is the total number of hours (units) of the courses registered by the student in the semester, and determined according to the following rules:

1 Minimum Limit: The minimum course load is 12 credit hours per semester and one credit hour per a summer semester. 2 Maximum limit: The maximum course load is 20 credit hours per semester and 10 credit hours per a summer semester.
B. A student who has been warned academically is not entitled to increase his/her study load over 14 hours.
C. A student who gets a pass grade is not entitled to increase his/her study load over 16 hours
D. A student who gets a good grade is not entitled to increase his/her study load over 18 hours.
E. Graduate students are allowed to exceed the maximum limit with no more than 24 credit hours in the semester and 12 credit hours in the summer semester

## Fifth: Academic Warning:

A Student given an academic warning if his/her cumulative GPA is less than 2.00 out of than 5.0

## Appendix (A): Academic record and Grade Symbols

| Symbol | Marks Range | Points | Meaning |  |
| :---: | :---: | :---: | :---: | :---: |
| A+ | 95 till 100 | 5.0 | Exceptional |  |
| A | 90 till less than 95 | 4.75 | Excellent | , |
| B+ | 85 till less than 90 | 4.5 | Superior | <11 - $\quad$ > |
| B | 80 till less than 85 | 4.0 | Very good |  |
| C+ | 75 till less than 80 | 3.5 | Above average | - |
| C | 70 till less than 75 | 3.0 | Good |  |
| D+ | 65 till less than 70 | 2.5 | High Pass | $\checkmark$ |
| D | 60 till less than 65 | 2.0 | Pass | -m b |
| F | Less than 60 | 1.0 | Fail |  |
| IP | ----- | ----- | In progress |  |
| IC | ----- | ----- | In complete | $1$ |
| DN | ----- | 1.0 | Denile | - |
| NP | 60 and more | ----- | No grade-Pass |  |
| NF | Less than 60 | ----- | No grade-Fail |  |
| W | ----- | ----- | Withdrawn |  |
|  |  |  |  | $22$ <br> Jouf ilñed |



## E-learning

Blackboard

The blackboard system allows teaching staff to submit course materials, discussion and chat forums, short exams to students on the Internet, in addition to academic resources and many more. The blackboard system provides students with great opportunities to communicate with courses and with course professors outside the lecture hall at any time and anywhere. In addition to communicating with the course professor and the rest of the students registered in the same course, by multiple electronic means. The blackboard system provides students with various tools to view the course contents and interact with them in an easy way. To view the Blackboard Guide you can go through the following hyperlink. To view the virtual classroom system (attend lectures from anywhere) through the $25 \underline{\text { link }}$


## Academic counseling

An academic file is prepared for each student, including contact information. The student is directed to how to use the electronic portal of the university (Edugate) in order to take advantage of all the services it provides to the student. www.edugate.ju.edu.sa a file is prepared for the academic advisor and various indicative forms have been activated for different student cases. Enumeration of students who have excelled in studies and enumerated students who are academically dismissed have been counting students who have failed to study. The registration of students for the second semester courses is followed up and they are instructed on the correct way to register and send the forms to them via a scanner via the Blackboard

## Academic counseling tasks

$>$ Supervision of the process of academic guidance in the College according to the approved mechanisms.
$>$ Organizing an orientation meeting at the beginning of each semester of each year to introduce the student, the new curriculum, The College, its system, its nature and its departments. The expected Jobs for each department, and the College Administration
$>$ (The Dean and the Heads of Departments) and the academic guides.
$>$ Provide Counseling tools from university sources and deliver them to academic advisors.
$>$ Organizing courses, training sessions, workshops and lectures to teach students some skills and to prepare the students of the college for Exams.
$>$ Helping students solve their psychological and social problems that directly affect Academic achievement.
$>$ Coordinating with the Center for Academic Guidance and students at the university and carrying out other tasks entrusted to the unit.

Early guidance for students to register their courses of next semester and to prevent conflicts and problems and avoid them in the last semester.
$>$ Address the problems of students who fail and guide them appropriately.
$>$ Activation of the E-Counseling.


## Aid provided to struggling students

The student is assisted and guided in all educational, psychological, social, ethical, educational and professional aspects in order to understand his personality, know his capabilities and solve his problems within the framework of Islamic teachings to reach the achievement of his goals within the framework of the general objectives of education in the Kingdom of Saudi Arabia and to become an active member of the university community. Through the achievement of meeting and direct meeting with students to research and diagnose the indicative situation and knowledge of students' academic, social and psychological problems and try to work to solve the obstacles that hinder their superiority and continue to study, either by directing faculty members with the help of students or by directing the student to the best way to continue studying, and how to take The decision regarding the choice of academic subjects, additive and deletion materials, and other: sound study methods, determining future aspirations in the field of education and the profession, and developing self abilities. Pay special attention and advance (at the beginning of the semester and after the first semester) to guide students with a lower level or who have more warnings than the normal level (three or more), in order to help them raise their educational level and overcome academic obstacles The student shall be assisted in registering the academic hours that are compatible with his abilities and are compatible with the university system in its upper, lower, and default limits the mechanism for communicating with the guided students The continuous advertisements posted on the door of the office. Phone calls and advertising through groups and WhatsApp Blackboard. During the lectures (before or after the lecture, to maintain privacy) for the students I teach, or I go to the lectures for the students I do not teach.

## Templates of Academic Counseling

Academic Counseling Unit

## Student Time table Review

Student regarding average

Student not committed his plan

Counseling Hours form

Course Registration Form

Adviser report form

Schedule meetings

Stumble students

Stumble over form

Talented students

Time Table form

Delete or add courses

Case study form

Counseling meetings

## Graduate Specifications

$>$ The ability to remember knowledge and improve a wide range of skills they have acquired and the continuity to enrich it.
$>$ Acquaintance of comprehensive, holistic and organized knowledge in a specific field and of principles and theories related to it.
$>$ The ability to research complex problems, find innovative solutions with only limited guidance, using insights relevant to their field of study any other similar areas.
$>$ The ability to identify and use appropriate mathematical and statistical methods in analysis, find solutions to complex issues, and the ability to select and use the most appropriate mechanisms to deliver results to different recipients.
$>$ The ability of leadership and willingness for complete cooperation with others in joint projects and initiatives.
$>$ In the case of a professional program, a wide and integrated range of knowledge and skills necessary for effective professional practice is required.
$>$ In the case of academic program that does not need professional practice, it is necessary to acquire a thorough knowledge and understanding of research literature in the area of specialization as well as the ability to interpret, analyze and evaluate the importance of such research in enriching knowledge in the field of study.

## Career after graduations

The mathematics program is aimed to equip students with the professional abilities they will need to be successful and distinguished in their careers. The possibilities for a career in mathematics sciences are nearly limitless! Those with mathematics degree have a plethora of professional options. The degree can be used to apply for advanced level programs (e.g., postgraduate studies). A bachelor's degree in mathematics is required to teach mathematics at the secondary school level. Graduates with a B.Sc. in mathematics can work in a variety of sectors, including:
$>$ the companies
$>$ Ministry of Education
$>$ Ministry of high Education.
$>$ Researchers of scientific
$>$ Banks


## Appendix (B): Study plan of mathematics program

Table 1: Curriculum Structure

| Program Structure | Required/ Elective | No. of courses | Credit Hours | Percentage |
| :---: | :---: | :---: | :---: | :---: |
|  | Required | 8 | 19 | 14 \% |
| Institution Requirements | Elective | 5 | 6 | $5 \%$ |
|  | Required | 6 | 19 | 14 \% |
| College Requirements | Elective | 0 | 6 | 0\% |
|  | Required | 24 | 73 | 54 \% |
| Program Requirements | Elective | 9 | 12 | $11 \%$ |
| Capstone Course/Project | Required | 1 | 3 | 2\% |
| Field Experience/ Internship | Required/Elective | 0 | 0 | 0 \% |
| Others | Required/Elective | 0 | 0 | 0\% |
| Total |  | 53 | 134 | 100\% |

## Program Study Plan (Required)

| Level First |  |  |  |
| :---: | :---: | :---: | :---: |
| Code | Course Name | $\begin{gathered} \text { Credit } \\ (\mathbf{L T}, \text { LB }, \text { ET }) \end{gathered}$ | Prerequisite |
| ENGL 101 | English (1) | 3 (2,0,2) | -- |
| MTH101 | Introduction of Mathematics | $3(2,0,2)$ | -- |
| BIO 101 | General Biology | 3 (2,2,0) | -- |
| ISL101 | Islamic Culture | 2(2,0,0) | -- |
| CIS101 | Computer skill | 3(2,2,0) | -- |
| EDU101 | Skills of University Life | 2(2,0,0) | -- |
| Total credit |  | 16 Unit |  |

## Level Second

| Code | Course Name | Credit <br> $($ LT, LB, ET $)$ | Prerequisite |
| :---: | :---: | :---: | :---: |
| ENGL 102 | English(2) | $\mathbf{3 ( 2 , 0 , 2 )}$ | ENGL 101 |
| PHS101 | General physics (1) | $\mathbf{4 ( 3 , 2 , 0 )}$ | -- |
| MTH 102 | Differential Calculus | $\mathbf{3 ( 2 , 0 , 2 )}$ | MTH101 |
| MCH 101 | General chemistry | $\mathbf{4 ( 3 , 2 , 0 )}$ | -- |
| ARAB101 | Arab language skills | $\mathbf{2 ( 2 , 0 , 0 )}$ | $-\mathbf{- -}$ |
| ISL 100 | Studies in the | $\mathbf{2 ( 2 , 0 , 0 )}$ | - |
| Total credit | $\mathbf{1 8}$ Unit |  |  |

## Level Third

| Code | Course Name | $\begin{gathered} \text { Credit } \\ (\text { LT, LB , ET }) \end{gathered}$ | Prerequisite |
| :---: | :---: | :---: | :---: |
| MTH203 | Integral Calculus | 3(2,0,2) | MTH102 |
| MTH231 | Basics of Mathematics | 3(2,0,2) | MTH102 |
| STAT 201 | General Statistics | 2(1,0,2) | MTH102 |
| MTH221 | Math programs and programming | 3(2,2,0) | CIS 101 |
| ARAB 102 | Arabic writing | $\mathbf{2}(2,0,0)$ | -- |
| ISLXXX | Islamic elective course | $\mathbf{2 ( 2 , 0 , 0 )}$ | -- |
| Total credit |  | 15 Unit |  |

## Level Fourth

| Code | Course Name | Credit |
| :---: | :---: | :---: | :---: |
| (LT, LB, ET) |  |  | Prerequisite

## Program Study Plan (Required)

Level Fifth

| Code | Course Name | Credit <br> $($ LT, LB, ET) | Prerequisite |
| :--- | :--- | :---: | :---: |
| MTH305 | Differential Equations | $\mathbf{3 ( 2 , 0 , 2 )}$ | MTH 204 |
| MTH343 | Numerical Analysis (1) | $\mathbf{3 ( 2 , 2 , 0 )}$ | MTH 241\&MTH <br> 221 |
| MTH332 | Abstract Algebra (1) | $\mathbf{3 ( 2 , 0 , 2 )}$ |  <br> MTH 242 |
| MTH322 | Linear Programming | $\mathbf{3 ( 2 , 0 , 2 )}$ | MTH 241 |
| MTH351 | Statistics | $\mathbf{3 ( 2 , 0 , 2 )}$ | MTH203 |
| EDU/ <br> BUS | Optional Course | $\mathbf{2 ( 2 , 0 , 0 )}$ | -- |
|  | Total credit | $\mathbf{1 7}$ Unit |  |

Level Seventh

| Code | Course Name | Credit <br> (LT, LB, ET) | Prerequisite |
| :--- | :--- | :--- | :--- |
| MTH 424 | Optimality Techniques | $\mathbf{3 ( 2 , 0 , 2 )}$ | MTH322 |
| MTH434 | Abstract Algebra(2) | $\mathbf{3 ( 2 , 0 , 2 )}$ | MTH332 |
| MTH445 | Numerical Analysis (2) | $\mathbf{3 ( 2 , 0 , 2 )}$ |  <br> MTH 343 |
| STAT 404 | Statistical Theory (1) | $\mathbf{3 ( 2 , 0 , 2 )}$ | STAT 303 |
| MTH413 | Special Functions | $\mathbf{3 ( 2 , 0 , 2 )}$ | MTH312 |
| MTH XXX | Optional(3) | $\mathbf{3 ( 2 , 0 , 2 )}$ | -- |
| Total credit |  | 18 Unit |  |

## Level Sixth

| Code | Course Name | $\begin{aligned} & \text { Credit } \\ & \text { (LT, LB, ET) } \end{aligned}$ | Prerequisite |
| :---: | :---: | :---: | :---: |
| MTH306 | Partial differential equations | 3(2,0,2) | MTH 305 |
| MTH312 | Real Analysis (2) | 3(2,0,2) | MTH211 |
| STAT 303 | Data Analysis | 3(2,2,0) | MTH 343\& STAT 202 |
| MTH XXX | Optional(1) | 3(2,0,2) | -- |
| MTH XXX | Optional(2) | 3(2,0,2) | -- |
|  |  |  |  |
| Total credit |  | 15 Unit |  |

Level Eightieth


Elective courses of Mathematics Department ( 15 hours)

| Level | Prerequisite | Credit Hours |  |  |  | Course Name |  | Course Code | Course number | S.N. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Credit | Training/E xercise | Practical | Theoretical |  |  |  |  |  |
| 6 | STAT 202 | 3 | 2 | 0 | 2 | Prediction | ethods | MTH | 323 | 1 |
|  | MTH241 | 3 | 2 | 0 | 2 | Linear Alge | ra (2) | MTH | 344 | 2 |
|  | MTH 241 | 3 | 2 | 0 | 2 | Entrance to th | fixtures | MTH | 333 | 3 |
| 7 | MTH 332 | 3 | 2 | 0 | 2 | Discrete Mat | ematics | MTH | 436 | 4 |
|  | MTH 351 | 3 | 2 | 0 | 2 | Dynam |  | MTH | 452 | 5 |
|  | Pass 80 Credit <br> Units | 3 | 2 | 0 | 2 | Selected <br> (Department | pics <br> pprove) | MTH | 481 | 6 |
| 8 | STAT404 | 3 | 2 | 0 | 2 | Probabili | (2) | STAT | 405 | 7 |
|  | MTH 312 | 3 | 2 | 0 | 2 | Functional | nalysis | MTH | 462 | 8 |
|  | MTH 306 | 3 | 2 | 0 | 2 | Mathematical | modeling | MTH | 425 | 9 |
| University Courses |  |  |  |  |  |  |  |  |  |  |
| Total | Elective University Specialization |  | University <br> Courses <br> Specialization |  | Course <br> Included the Deptt | Course <br> Excluded the Deptt | Elective <br> University <br> Courses | University <br> Courses |  | Prerequisite |
| 134 | 15 |  | 75 |  | 8 | 11 | 6 | 19 |  | Hours |

## Program learning Outcomes Mapping Matrix

|  | Course code\& No. | NCAAA Program Learning Outcomes |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Knowledge and understanding |  |  | Skills |  |  |  |  |  | Values |  |  |
|  |  | K1 | K2 | K3 | S1 | S2 | S3 | S4 | S5 | S6 | V1 | V2 | V3 |
| Level 1 | MTH 101 | I |  |  | I |  |  |  | I |  | I |  |  |
| Level 2 | MTH 102 |  | I |  | I |  |  |  | I |  | I |  |  |
| Level 3 | MTH 203 |  | I |  |  | I |  |  | I |  |  | I |  |
|  | MTH 231 | I |  |  | I |  | I |  | I |  |  |  |  |
|  | MTH 271 |  | I |  | I |  | I |  |  |  |  | I |  |
|  | MTH 221 |  |  | I | I | I |  |  |  | I |  |  |  |
| Level 4 | MTH 204 |  | P |  | P |  |  |  | P |  | P |  |  |
|  | MTH 211 | P |  | P | P |  |  |  |  |  |  | P |  |
|  | MTH 241 | P |  |  | P |  |  |  | P |  |  |  | P |
|  | MTH 242 | P |  |  | P | P |  |  |  |  |  |  | $\mathbf{P}$ |
|  | MTH 272 | P |  |  | P |  | P |  | P |  |  |  |  |

## Program learning Outcomes Mapping Matrix



## Rules and Regulations

## Rules of registration, deletion and addition of courses:

Registration, deletion and addition of courses shall be within the approved study plan levels, in a manner that ensures that students register for the minimum academic load.

## The student may register or delete the courses he wishes to study as follows:

i. The student can register the courses he wishes to study one week before the start of the semester and ends by the end of the first week of it
ii. The student can delete the courses he does not want to study according to the period specified in the university calendar.
iii. The registration must not exceed the upper limit of the academic load and be no less than the minimum
iv. The course registration process for the student takes place after consulting with his academic advisor, and the student is responsible for any deficiencies or errors that occur as a result of his ignorance of the instructions.
v . If the student does not register any course during the regular registration period, he is considered to have dropped out of study.

## Registration approval:

A- In the case of automatic registration, the student must approve his academic schedule through his personal file in the university computer system during the add and drop period. B - The student is considered suspended from studying, and the phrase "discontinued for non registration" is placed in the computer system if he does not approve his academic schedule during the add and drop period.
The academic load is the sum of the study hours (units) for the courses that the student registers in
the semester, and it is determined according to the following rules:
A- The minimum academic load is 12 credit hours in the semester and one credit hour in the summer semester.
B - The maximum academic load is 18 credit hours in the semester and 13 credit hours in the summer semester.

## Rules and Regulations

## A student who is academically admired is not entitled to have more than $\mathbf{1 2}$ hours of study load

 D- A student with an acceptable grade is not entitled to have more than 14 hours of study load.F- A graduate student is allowed to exceed the maximum limit by no more than three credit hours.
G- The student is given an academic warning if the cumulative GPA is less than 2 out of

## Rules for denying entry to the final exam:

1 .The student is prohibited from entering the final exam of the course if his absence exceeds $25 \%$ without an excuse from the total lectures and scientific lessons specified for the course.

2 .After the student who was prevented from taking the exam due to absence in the course, the semester work score is confirmed for him, and a deprived grade is assigned to him (h)
3.The deprivation lists are announced in the last week of study for each semester by the college itself.

4- An exception may be made to lift the deprivation and allow the student to enter the test, provided that the student provides an excuse, and the University Council determines the attendance rate, provided that it is not less than $50 \%$ of the lectures and practical lessons specified for the decision.

## Rules for absenteeism from the final exam:

1- The student who is absent from the final exam will have a score of zero in that test, and his grade in that course is calculated on the basis of the semester work grades obtained

2- Absence of the final exam is excused in the following cases:
$>$ To present the excuse from the time its cause is obtained until one week after its removal on the department to which the student belongs.
$>$ Compulsive excuses accepted by the College Board.
3- The alternative examination and the results are monitored within a period not exceeding the end of the next semester.
https://dar.ju.edu.sa/forms/regulations_JU_Final Version-3.pdf

## Rules for excusing them from studying:

1.A student may apologize for continuing to study a semester without being considered a failed one if he finishes the procedures of apology within the regular period, which extends to three weeks before the final exams according to the university calendar.
2.The student is assigned a grade of $(\mathrm{W})$, and this semester is calculated from the period required to complete the graduation requirements.
3.The excuse semesters should not exceed two consecutive semesters or three separate semesters throughout the student's university study, and his registration shall be closed after that.
4.The apologizing student must register after the end of the apology period, otherwise it will be considered interrupted.
5.A student may withdraw from one or more courses within eight weeks of the start of the study and four weeks for the summer semester, provided that the study load is not less than the minimum.

## Postponement and dropping out

1. A student may apply for a study postponement before the beginning of the semester, provided that the period of postponement does not exceed two consecutive academic semesters or three nonconsecutive semesters as a maximum, and then folds his registration after that. Students.
2. A female student accompanying her husband or who is legally dependent on her may suspend her studies (acceptance and registration) for a period not exceeding five years, and if the student wishes to return to study, her situation is treated as follows:

A- In the event that the study plans change, they are equivalent to similar or equivalent courses that the student or student had previously studied and complete the graduation requirements of the current plan

B - In the event that the study plans are not changed, the student will return to her previous academic status.
C- After more than five years have passed, the student's seat in the department is reserved, and she begins as a freshman.


## Rules and Regulations

3.The postponement period is not counted within the period necessary to complete the graduation requirements.
4.The postponed student must register after the end of the postponement period, otherwise he will be considered interrupted
5.The student's "disconnected for non-registration" registration shall be closed if he does not process his academic status before the end of the fifth week of study.
6.The student is not considered cut off from the study for the semesters he is studying as a visitor at another university

## Re-enrollment

1- The student whose registration has been terminated may submit a request to his faculty to re-enroll him with his number and previous record according to the following controls:
A. To submit an application for re-registration within four semesters from the date of the enrollment extinguishing.
B. B. That the relevant college council approves the re-enrollment of the student in accordance with the controls it sets during the registration period, and in the event that the
C. College Board's approval is delayed for the regular registration period, the student is not entitled to register except in the next semester.
D. If four semesters or more have passed since the student's enrollment has been terminated, he can apply to the university as a new student without referring to his previous academic record, provided that he meets all the admission requirements announced at the time, and the University Council may make an exception based on the recommendation of the College Board.
E. It is not permissible to re-enroll a student more than once, and the University Council may, in case of necessity, make an exception from this, based on the recommendation of the College Board.
F. It is not permissible to re-enroll a student whose registration has been withdrawn if he was academically dismissed.

enrollment that he was previously dismissed for such reasons, his registration shall be considered canceled from the date of re-registration

## Dismissal from University

The student is warned if his GPA falls below 2 out of 5 and this appears in his academic record.
2 .If the student receives three consecutive warnings, he is considered academically dismissed until the College Council issues a decision in his regard as follows: The college council gives the student a fourth opportunity, and if the student's performance improves in the last semester so that his semester average is not less than 3 out of 5 , then the College Board recommends that to the University Council to give him a last chance.
3. If the student does not complete the graduation requirements during the prescribed period for his graduation, then his situation is treated according to the following: If he does not complete the graduation requirements within a period not exceeding half of the period determined for his graduation in addition to the duration of the program, the College Council may give an exceptional opportunity to the student to complete the graduation requirements with a maximum of twice the original period specified for graduation, provided that the reason for failure is acceptable to the College Board. 4 - The college lists all cases that are received by it and submits them to the relevant councils, and informs the Deanship of Admission and Registration of decisions within a period not exceeding one week from the start of the study, and in the event of delay from that, the student is not entitled to register except in the next semester.

## Final Exams

1. The semester work score for the theoretical course is $40 \%$ and for the theoretical course, which includes a practical course $50 \%$ of the final grade.
2.The semester work score is calculated according to the practical or research tests or two written tests, depending on the nature of the course.
2. The grades obtained by the student in each course are calculated according to Appendix No. (A)

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4. An estimate of (withdrawn with a satisfactory origin), (WP) is given when the official student withdraws from all courses after the withdrawal period with an excuse, and the grade is given after the approval of the course teacher that the student was satisfactory, and that his absence without an excuse did not exceed $20 \%$ of the lectures and laboratories. Until the date of his withdrawal, this estimate does not affect the student's GP

5 -A grade (withdrawn with a failing grade) is given if the student officially withdraws from all courses after the withdrawal period with an excuse and his performance is satisfactory, and the student who obtained this grade is considered to have failed the course.

6 -The general estimate for the GPA upon graduation is based on his GPA on the basis that the grade's weight is from (5). The general estimate for the GPA when the student graduates is based on his GPA .

7 - The first class of honors is granted to a student with a GPA of (4.75) to (5) upon graduation, and a second class of honors is granted to a student with a GPA of (4.25) to less than (4) upon graduation.

8 -To obtain a first or second honors degree, the following is required:
A. That the student has not failed in any course he took at the university or at another university.
B. B. That the student has completed the graduation requirements in a period of no more than the average period between the minimum and the maximum period for staying in his college.

## Final exam procedures

1. The College Council organizes the conduct of the examinations and submits the results to the Deanship of Admission and Registration in accordance with the instructions issued by it within a period not exceeding fortyeight hours from the date of examining any course.
2. The course instructor sets the test questions, and it is permissible, when necessary, based on the suggestion of the head of the department, that a person chosen by the faculty council 3. The course instructor corrects the final examination papers of his course, and the head of the department (when needed) may associate one or more specialists with him

in the correction, and the college council may, when necessary, assign the correction to whomever he deems appropriate.
3. Whoever corrects the final exam monitors the grades obtained by students in the transcripts prepared for that purpose, signs them, and then ratifies them by the department head.
4. A student may not be tested in more than two courses in one day, and the University Council may make an exception from that.
5. The student is not allowed to enter the final exam after half an hour has passed from its beginning, and he is not allowed to leave the exam before half an hour has passed since its beginning.
6. Cheating in the exam, attempting it, or violating the instructions and rules for conducting the exam are matters for which the student is punished according to the student discipline regulations issued by the University Council.
7. The council of the faculty that teaches the course, in cases of necessity, has the right to approve the re-marking of the answer sheets within a period not exceeding the start of the next semester exams .
8. The college council determines, based on the department council's recommendation, the duration of the final written examination, provided that it is not less than one hour and not more than three hours.

## Regulations for final examination procedures:

## Regulations for final examination procedures, the following will be entrusted to the college:

1. Preparing for the final exams to ensure that the headquarters are prepared, that the questions are available and that there are sufficient numbers of observers before the start of the tests in sufficient time.
2. Follow up the progress of the tests and solve students' problems in coordination with the relevant authorities at the university.
3. Ensure that the course professor submits the answer sheets and monitors grades on the system after the result is approved by the department head, not exceeding the period specified in the regulations.
4. Coordination with the departments in monitoring and reviewing the results of the decisions they supervise.

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5. Maintaining the original transcripts for each department.
6. Keeping students 'paper answers for a period of not less than two semesters at the college to which the course is affiliated.
7. The College Deanship should follow up on cases of delays in monitoring results for the specified period according to the regulation and address them with the Deanship of Admission and Registration.

## Transferring

Accepting transferring a student may be done from outside the university according to the following controls:

1. The student must have studied at a college or university recognized by the Ministry of Higher Education for at least one semester.
2. The student should not fail the GPA.
3. He should not be dismissed from the university from which he was transferred for disciplinary reasons.
4. That the transfer should not be from an academic degree to a higher degree.
5. The number of prescribed units that the transferred student is required to study at Jouf University must not be less than $(60 \%)$ of the number of prescribed units required to obtain a bachelor's degree from the university.
6. That the sum of the period the student spent in the university from which he is transferred and the remaining period at Jouf University should not exceed the average period between the minimum and maximum stay in the college.
7. He must meet the requirements for admission to the department.
8. That the student's GPA is not less than (2.75) out of (5).
9. That the transfer procedures are completed before the end of the first week of the beginning of the semester, and if this period is exceeded, the transfer shall be for the next semester.
10.That the transfer movement be recorded in the student's academic record.
11.The transferred student is equivalent to no more than (40\%) of the approved study plan hours for the Department of mathematics

12.The grades obtained by the student in the courses referred to him are not included in the calculation of his cumulative GPA.
13.That the grade of the course to be equivalent is not less than "good" and is equivalent in the number of units.
14.The content of the course to be equated must not be less than $70 \%$ of the course content in the mathematics Department.
15.If, after the transfer of the student, it becomes clear that he was previously dismissed for disciplinary reasons, his registration shall be considered canceled from the date of acceptance of his transfer to the university.
Transferring the student to another college within the university shall be according to the following controls:
10. The student should not have spent more than four semesters, provided that the semesters for preparatory programs are not counted from the period.
11. That the transfer procedures end during the first week of the semester, and if the procedures exceed this period, the transfer is for the next semester. The student is not transferred until at least one semester has passed in the college from which he is transferred.
12. A student is allowed to transfer once during his university studies or twice if one of them is the preparatory year.
13. A student who is transferred to the preparatory year is returned to his previous section in the event that he did not pass it, and that is only once.
14. The academic record of the student transferred from one college to another shall be recorded for all the subjects he previously studied, including grades, semester and cumulative averages throughout his studies at the university.

## Transferring from one major to another within the college:

1. When transferring from one department to another within the college, the controls mentioned in the executive rule for transferring the student to another college within the university are taken into consideration.
2. Approval of the department to which he is transferred.


## Rules and Regulations

3. The academic record of the student transferred from one major to the last shall be recorded in all the subjects he previously studied, including the semester and cumulative grades and averages throughout his studies at the university.

## The visiting student

First: For a student of the mathematics department at Jouf University who wishes to study as a visitor at another university or college:
A. The student must have an academic record (GPA) for at least one semester at the university prior to his request to study as a visiting student.
B. The student must obtain prior approval from the student's college to allow him to study as a visiting student with specifying the courses that he will study, and the college may require obtaining a certain rate to equalize the course, and it is directed to study by an official letter from the Deanship of Admission and Registration.
C. The study must be in a recognized college or university.
D. That the course that the student will study outside the university is equivalent or (equivalent) by not less than $70 \%$ in its vocabulary and its academic units are not less than one of the courses included in the graduation requirements.
E. The maximum number of units of study that can be calculated from outside the university as a visiting student is ( $20 \%$ ) of the total units of graduation from Jouf University .
F. The averages of the courses that are equivalent to the visiting student at another university are not calculated in his cumulative GPA, and the courses are recorded in his academic record.
G. The student must provide the Deanship of Admission and Registration with his results obtained within a week of starting the study in the first semester following the period of his studies as a visitor, and if he does not submit his results, he is considered cut off from those semesters (except for the summer semesters).
H. The maximum number of semesters that a student is allowed to study as a visitor is two semesters.

## Second:For a student of another university and wants to study as a visiting student In

## the mathematics Department, Jouf University:

A. To obtain prior written approval from his university to study a visiting student at Jouf University, and he must mention in the letter the decisions of the mathematics Department of Jouf University that the student will study.
B. To obtain the approval of the mathematics Department.
C. A - The courses for the student are registered by the competent authority, taking into account all the registration controls in the courses.
D. At the end of his studies, the student is provided with a letter explaining the results of the courses he studied.

## Teaching and Administrative Staff

## Professional Development

## Orientation of New Teaching Staff

Describe briefly the process used for orientation of new, visiting and part-time teaching staff
New faculty staff orientation program, including: demonstration of program specification, program objectives, learning outcomes, teaching strategies, assessment methods and format, mechanism used for course and program evaluation, laws, rules and regulations, college hierarchy. As well as, the administrative affairs via a concentrate orientation program for 1 week every semester.

## Professional Development for Teaching Staff

Describe briefly the plan and arrangements for academic and professional development of teaching staff (e.g., teaching \& learning strategies, learning outcomes assessment, professional development, etc.)
academic and professional development of teaching staff including improvement of skills in teaching and student assessment through workshops about teaching and student assessment methods and strategies.

Other professional development including knowledge of research like seminars on research, research partnership and research funding. The teaching stuff is required to attend at least one workshop each year for improving his teaching skills.

## Notable achievement of the program

| no | Prize Winner Name | Prize Name | Awarding from: | Prize Area | The work that deserves <br> the award |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | Maawiya Ould Sidi | Research Excellence and <br> Publication quality award | Jouf University | Mathematics | ISI Published paper in <br> Applied Mathematics |
| 2 | El-sayedAbdelraoof <br> Mohamed El-hady | Research Excellence and <br> Publication quality award | Jouf University | Mathematics | ISI Published paper in Q1 <br> Journal |
| 3 | Abeer Bent Youssef El <br> Hacheech | Research Excellence and <br> Publication quality award | Jouf University | Mathematics | ISI Published paper in <br> Mathematics |

## Google Scholar and Scopus for mathematics member staff

| Scopus link | Google-Scholar link | Name | $\bigcirc$ |
| :---: | :---: | :---: | :---: |
| https://www.scopus.com/authid/detail.uri ?authorId=6507925883 | https://scholar.google.com/citations?us er=YsbQg6gAAAAJ\&hl=ar\&oi=ao | Dr. Nour Abdel Mawla Abdel Mawgoed | 1 |
| https://www.scopus.com/authid/detail.uri ?authorId=21234038500 | https://scholar.google.fr/citations?user = $\mathrm{Vp} 2 \mathrm{rFrgAAAAJ} \& h l=f r$ | Prof. Dr. Sayed Ahmed Ahmed Mahmoud | 2 |
| https://www.scopus.com/authid/detail.uri ?authorId=57200815300 | https://scholar.google.com/citations?us er=EX6BbF8AAAAJ\&hl=en | Dr. Dalal Al-Ruwaili | 3 |
| https://www.scopus.com/authid/detail.uri ?authorId=54963016900 | https://scholar.google.com/citations?us er=ZJ9xM0kAAAAJ\&hl=en | Dr Muawiyah Ould Sidi | 4 |
| https://www.scopus.com/authid/detail.uri ?authorId=55935997300 | https://scholar.google.com/citations?us er=sdKekAYAAAAJ\&hl=en | Dr Seyed Ahmed Ould Benan | 5 |
| https://www.scopus.com/authid/detail.uri ?authorId=57215097698 | https://scholar.google.com/scholar?hl= <br> en\&as_sdt=0\%2C5\&q=Aydah+Al- <br> Ahmadi\&oq=Aydah+Al-Ahmadi | Dr. Aida Mohammed Al Ahmadi | 6 |
| https://www.scopus.com/authid/detail.uri ?authorId=57207819882 | https://scholar.google.com/citations?us $\underline{\text { er=Io043dYAAAAJ\&hl=ar\&oi=ao }}$ | Dr Yemen Saleh Al-Ruwailid | 7 |
| https://www.scopus.com/authid/detail.uri ?authorId=56652183300 | https://scholar.google.fr/citations?user =tAceCHkAAAAJ\&hl=en | Dr Abdul Latif Abdul Razzaq bin Makhlouf | 8 |
| https://www.scopus.com/authid/detail.uri ?authorId=55857341000 | https://scholar.google.com/citations?us er=Jwf791EAAAAJ\&hl=fr | Dr Jawhar Muhammad Ahbeel | 9 |

## Google Scholar and Scopus for mathematics member staff

| https://www.researchgate.net/profile/Mo hamed-Kharrat-2 | https://scholar.google.com/citations?u ser=lgknDdYAAAAJ\&hl=ar | Dr.Muhammed Moncef Al- <br> Kharrat | $\underline{10}$ |
| :---: | :---: | :---: | :---: |
| https://www.scopus.com/authid/detail.ur i?authorId=47661734500 | https://scholar.google.com/citations?u ser=Yuku7KAAAAAJ\&hl=en | Dr. Amr Radwan | 11 |
| https://www.scopus.com/authid/detail.ur <br> i?authorId=37088334200 | https://scholar.google.com/citations?u ser=_7K3xk4AAAAJ\&hl=en | Dr. Hassan Obeidi Arfaoui | $\underline{12}$ |
| https://www.scopus.com/authid/detail.ur <br> i?authorId=57217205279 | https://scholar.google.com/citations?u ser=05 khqkAAAAJ\&hl=ar | Dr. Fathy Hamdy Riyad Abdullah | $\underline{13}$ |
| https://www.scopus.com/authid/detail.ur i?authorId=57199665856 | https://scholar.google.com/citations?h l=en\&user=0kjW3GoAAAAJ | Dr Naeem Ahmed Mohamed Atallah | $\underline{14}$ |
| https://orcid.org/0000-0002-5546-4932 | https://scholar.google.com/citations?u <br> ser=_U6GSGoAAAAJ\&hl=ar | Dr. Samir Al-Mohammadi Attia | 15 |
| https://www.scopus.com/authid/detail.ur <br> $\underline{\text { i?authorId=57221699747 }}$ | https://scholar.google.com/citations?u ser=dP3ydVAAAAAJ\&hl=en | Dr. Hadi bin Obaid Al Shammari | 16 |
| https://www-scopus- <br> com.sdl.idm.oclc.org/authid/detail.uri?a <br> uthorId=55734632600 | https://scholar.google.com/citations?h l=ar\&user=F5BzBOsAAAAJ | Dr. Abeer Abdullah Al-Dhaiman | 17 |

## Facilities and equipment

A report on the percentage of computers for faculty members and students in the Department of Mathematics 2020/2021. The Department of Mathematics has 35 faculty members and 273 students. The following table shows the distribution of computers

## Mathematics Lab



Approved Date
references

Department council minutes
20/04/1443H-25/11/2021

## Collage of Science

Mathematics
department

Good luck to every one in the

## Mathematics program

## Designed by

Dr. Ibrahim Albudawe

Dr Jawhar Mohamed Hbil



