

Kingdom of Saudi Arabia

National Commission for Academic Accreditation & Assessment

Bachelor of Science in Mathematics  
Program Specification

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## Study Plan

At the beginning of the academic year 1429-1430 H the college of sciences joined the program of the preparatory year in the university. This requires the development of the program study plan to be compatible with the new situation. The updated plan has passed the official stages and it has been approved from the academic affairs in the department, the college and the university. This study became applicable with the new students starting from the academic year 1430-1431H.

### General Scheme of the Study Plan

Requirement Type	Course Code and Title	Prerequisite	Corequisite	Credit Hours
<b>Preparatory Year Requirements</b>	ENG 140 : English Language (1) (E)			8
	ENG 150 : English Language (2) (E)			8
	MATH 140 : Introduction to Mathematics(E)			2(2+0+0)
	MATH 150 : Differential Calculus(E)	MATH 140		3(3+0+0)
	CT 140 : Computer Skills(E)			3
	CI 140 : Learning, Thinking and Research Skills			3
	ENT 101 : Entrepreneurship			1
	CHS 150 : Health and Fitness			1
	MC 140 : Communication Skills			2
<b>Total credit hours of the preparatory year requirements</b>				<b>31</b>
<b>University Requirements</b>		Students choose any 8 credit hours from the courses of the Islamic Culture.		
<b>Total credit hours of the university requirements</b>				<b>8</b>
<b>Compulsory Courses Required by the Department of Mathematics (Core Courses)</b>	MATH 111 : Integral Calculus (E)	MATH 150		4(3+1+0)
	MATH 131 : Foundations of Mathematics	MATH 150		4(3+1+0)
	MATH 160 : Computational Mathematics (E)	CT 140 & MATH 111		2(1+0+1)

Requirement Type	Course Code and Title	Prerequisite	Corequisite	Credit Hours
	MATH 201 : Differential and Integral Calculus (E)	MATH 111		4(3+1+0)
	MATH 202 : Vector Calculus (E)		MATH 201	4(3+1+0)
	MATH 225 : Introduction to Differential Equations (E)	MATH 201		4(3+1+0)
	MATH 243 : Number Theory	MATH 131		4(3+1+0)
	MATH 246 : Linear Algebra	MATH 131		4(3+1+0)
	MATH 316 : Mathematical Methods (E)	MATH202 & MATH 225		4(3+1+0)
	MATH 343 : Group Theory	MATH243 & MATH 246		4(3+1+0)
	MATH 352 : Numerical Analysis (1)	MATH160 & MATH 246		4(3+1+0)
	MATH 373 : Introduction to Topology (E)	MATH 382		4(3+1+0)
	MATH 382 : Real Analysis (1) (E)	MATH 201		4(3+1+0)
	MATH 425 : Partial Differential Equations (E)	MATH 316		4(3+1+0)
	MATH 431 : Combinatorics and Graph Theory (1)	MATH 246		4(3+1+0)
	MATH 441 : Rings and Fields	MATH 343		4(3+1+0)
	MATH 473 : Introduction to Differential Geometry (E)	MATH202 & MATH 246		4(3+1+0)
	MATH 481 : Real Analysis (2) (E)	MATH 382		4(3+1+0)
	MATH 487 : Complex Analysis (E)	MATH 382		4(3+1+0)
	MATH 499 : Research Project	Completion of 100 credit hours		3(0+0+0+3)
<b>Total credit hours required by the department of mathematics</b>				<b>77</b>
<b>Requirement of the department</b>	PHYS 101 : General Physics (1)			4
	STAT 100 : Introduction to Statistics	MATH 150		3

Requirement Type	Course Code and Title	Prerequisite	Corequisite	Credit Hours
other than Mathematics courses	STAT 105: Statistical Methods (E)	STAT 100		4
<b>Total Credit hours required by the department other than Mathematics courses</b>				<b>11</b>
<b>Elective Courses</b>	Students choose any 9 credit hours from the following list of courses :			
	MATH 379 : Foundations of Euclidean and Non-Euclidean Geometry	MATH202 & MATH 246		4(3+1+0)
	MATH391 : History of Mathematics	MATH243		2(2+0+0)
	MATH 426 : Modeling in Mathematical Biology (E)	MATH225 & MATH160		3(3+0+0)
	MATH 433 : Combinatorics and Graph Theory (2)	MATH 431		4(3+1+0)
	MATH 436 : Mathematical Logic (E)	MATH 131		4(3+1+0)
	MATH 442 : Applications of Algebra	MATH 441		4(3+1+0)
	MATH 453 : Numerical Analysis (2) (E)	MATH 352		4(3+1+0)
	MATH 456 : Introduction to Mathematical Programming	MATH 246		3(2+1+0)
	MATH 466 : Dynamical Systems and Chaos (E)	MATH 316		4(3+1+0)
	MATH 482 : Multivariable Calculus (E)	MATH 246 & MATH 481		3(2+1+0)
	STAT 215 : Probability (1)	STAT 100 & MATH 111		4
	PHYS 102 : General Physics (2)			4
	ECON 101 : Principles of Microeconomics			3
	ECON 102 : Principles of Macroeconomics	ECON 101		3

Requirement Type	Course Code and Title	Prerequisite	Corequisite	Credit Hours
	CSC 201: Computer Programming			4
	CSC 202: Computer Programming Using MATLAB	CSC 201		4
	MGT 101 : Principles of Management and Business			3
<b>Total credit hours of the electives</b>				<b>9</b>
<b>Total credit hours</b>				<b>136</b>

The letter (E) which appears beside some courses means that these courses will be taught in English.

### Semester-wise study plan

1 <sup>st</sup> Semester				
Course Code	Course Title	Prerequisite	Corequisite	Credits
CI 140	Learning, Thinking and Research Skills			3
CHS150	Health and Fitness			1
ENG140	English Language (1) (E)			8
MATH140	Introduction to Mathematics(E)			2 (2+0+0)
ENT 101	Entrepreneurship			1
Total Credit Hours				15

2 <sup>nd</sup> Semester				
Course Code	Course Title	Prerequisite	Corequisite	Credits
CT 140	Computer Skills(E)			3
MC 140	Communication Skills			2
ENG150	English Language (2) (E)			8
MATH150	Differential Calculus(E)	MATH140		3(3+0+0)
Total Credit Hours				16

3 <sup>rd</sup> Semester				
Course Code	Course Title	Prerequisite	Corequisite	Credits
PHYS 101	General Physics (1)			4
STAT 100	Introduction to Statistics	MATH150		3
MATH 111	Integral Calculus (E)	MATH150		4(3+1+0)
MATH 131	Foundations of Mathematics	MATH150		4(3+1+0)
	University Requirement			2
Total Credit Hours				17

4 <sup>th</sup> Semester				
Course Code	Course Title	Prerequisite	Corequisite	Credits
STAT 105	Statistical Methods (E)			4
MATH 160	Computational Mathematics (E)	CT 140& MATH 111		2(1+0+1)
MATH 201	Differential and Integral Calculus (E)	MATH 111		4(3+1+0)
MATH 202	Vector Calculus (E)		MATH 201	4(3+1+0)
MATH 246	Linear Algebra	MATH 131		4(3+1+0)
Total Credit Hours				18

5 <sup>th</sup> Semester				
Course Code	Course Title	Prerequisite	Corequisite	Credits
MATH 225	Introduction to Differential Equations (E)	MATH 201		4(3+1+0)
MATH 243	Number Theory	MATH 131		4(3+1+0)
MATH 352	Numerical Analysis (1)	MATH160 & MATH 246		4(3+1+0)
MATH 382	Real Analysis (1) (E)	MATH 201		4(3+1+0)
	University Requirement			2
Total Credit Hours				18

6 <sup>th</sup> Semester				
Course Code	Course Title	Prerequisite	Corequisite	Credits
MATH 316	Mathematical Methods (E)	MATH 202 & MATH 225		4(3+1+0)
MATH 343	Group Theory	MATH243& MATH 246		4(3+1+0)
MATH 373	Introduction to Topology (E)	MATH 382		4(3+1+0)
	University Requirement			2
	Elective Course			3
Total Credit Hours				17

7 <sup>th</sup> Semester				
Course Code	Course Title	Prerequisite	Corequisite	Credits
MATH 425	Partial Differential Equations (E)	MATH 316		4(3+1+0)
MATH 431	Combinatorics and Graph Theory (1)	MATH 246		4(3+1+0)
MATH 441	Rings and Fields	MATH 343		4(3+1+0)
MATH 481	Real Analysis (2) (E)	MATH 382		4(3+1+0)
	Elective Course			3
Total Credit Hours				19

8 <sup>th</sup> Semester				
Course Code	Course Title	Prerequisite	Corequisite	Credits
MATH 473	Introduction to Differential Geometry (E)	MATH 202 & MATH 246		4(3+1+0)
MATH 487	Complex Analysis (E)	MATH 382		4(3+1+0)
MATH 499	Research Project	Completion of 100 credit hours		3(0+0+0+3)
	University Requirement			2
	Elective Course			3
Total Credit Hours				16



### Credit point system

- Study system is on the basis of levels.
- The program consists of 8 levels (4 years).
- One level lasts for one semester.
- Total credit hours are 136 hour.
- One credit hour equivalent t one hour lecture or two tutorial/lab hours per week.

### Students Workload

Level (Semester)	Credit Hours	Contact hours (class hours)/week		Average of independent Study hours/week	Total workload/ week	Total workload/semester
		Lectures	Tutorials or labs			
1	15	15	0	15	30	450
2	16	16	0	16	32	480
3	17	15	4	21	40	600
4	18	14	8	28	50	750
5	18	14	8	30	52	780
6	17	14	6	31	51	765
7	19	15	8	27	50	750
8	16	11	4	23	38	570
Grand total	<b>136</b>				<b>343</b>	<b>5145</b>

**Student-Teacher ratio** for the academic year 1429/1430 is **51:1**.

**Faculty average load/Semester** is **17** credit hour.

### Allocation of Responsibilities for Learning Outcomes to Compulsory Courses (Core courses)

Learning Outcomes	Courses																				
	M 111	M 131	M 160	M 201	M 202	M 225	M 243	M 246	M 316	M 343	M. 352	M 373	M 382	M 425	M 431	M 441	M 473	M 481	M 487	M 499	
<b>Knowledge</b> Facts, Concepts, theories Procedures	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
<b>Cognitive Skills</b> Apply skills when asked Creative thinking and problem solving	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
<b>Interpersonal Skills and Responsibility</b>																					
Responsibility for own learning	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Group participation and leadership	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	
Act responsibly-personal and professional situations	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Ethical standards of behavior	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	
<b>Communication IT and Numerical Skills</b>																					
Oral and written communication	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Use of IT	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✓	
Basic maths and statistics	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	
<b>Psychomotor Skills</b>																					

✓ Major Responsibility, ✗ Minor Responsibility, M :=Math

### Allocation of Responsibilities for Learning Outcomes to Optional Courses

Learning Outcomes	Courses																			
Course Code and Number	M 379	M 391	M 426	M 433	M 436	M 442	M 453	M 456	M 466	M 482										
<b>Knowledge</b> Facts Concepts, theories Procedures	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓										
<b>Cognitive Skills</b> Apply skills when asked Creative thinking and problem solving	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓										
<b>Interpersonal Skills and Responsibility</b>																				
Responsibility for own learning	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓										
Group participation and leadership	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗										
Act responsibly-personal and professional situations	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓										
Ethical standards of behavior	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗										
<b>Communication IT and Numerical Skills</b>																				
Oral and written communication	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓										
Use of IT	✗	✗	✗	✗	✗	✗	✓	✓	✗	✗										
Basic maths and statistics	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗										
<b>Psychomotor Skills</b>																				

✓ Major Responsibility, ✗ Minor Responsibility, M := Math

# Program Specification

Institution : <b>King Saud University</b>
College/Department: <b>College of Sciences / Department of Mathematics</b>

## A. Program Identification and General Information

1 Program title and code <b>Bachelor of Science in Mathematics / MATH.</b>
2. Total credit hours needed for completion of the program <b>136 hours, 8 semesters (4 years).</b>
3. Award granted on completion of the program  <b>Bachelor of Science in Mathematics</b>
4. Major tracks/pathways or specializations within the program (eg. transportation or structural engineering within a civil engineering program or counseling or school psychology within a psychology program)  <b>None</b>
5. Intermediate Exit Points and Awards (if any) (eg. associate degree within a bachelor degree program)  <b>Not applicable</b>
6. Professions or occupations for which students are prepared. (If there is an early exit point from the program (eg diploma or associate degree) include professions or occupations at each exit point)  <ul style="list-style-type: none"> <li>1- High school teachers.</li> <li>2- Mathematicians in government ministries and institutions, and private sectors that require mathematical skills such as: Ministry of Finance, Saudi Arabian Monetary Agency, General Organization for Social Insurance, Central Department of Statistics and Information, Public Pension Agency, Banks, Research Centers, ARAMCO, SABIC, etc.</li> <li>3- Meritorious students pursue higher studies and ultimately join as faculty in colleges, technical colleges and universities in the Kingdom of Saudi Arabia.</li> </ul>
7. (a) New Program <input type="checkbox"/> Planned starting date <input type="text"/> (b) Continuing Program <input checked="" type="checkbox"/> Year of most recent major program review <input type="text"/> <b>1419 H (1998 G)</b>  Organization involved in recent major review (eg. internal within the institution, accreditation review by  <b>Internal within the institution</b>

8 Name and position (eg department chair person) of faculty member managing or coordinating the program.

**Dr. Tariq Alfadhel**

**Department Chairman**

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9. Location if not on main campus or locations if program is offered in more than one location.

**At the main Campus in Deriya for males and at Malaz for females**

**B Program Context**

1 Explain why the program is needed.

a. Economic reasons (if relevant)

**High demand for duly qualified graduates from the Department of Mathematics to fill the positions in the areas mentioned in A- 6 above.**

b. Social/cultural reasons (if relevant)

**Increasing interest of the local community in higher education.**

c. Relevance to Institution/College Mission.

**To meet the educational and developmental needs of the Kingdom in all domains relevant to Mathematics and its applications.**

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2. Relationship (if any) to other programs offered by the institution/college/department.

a. Does this program offer courses that students in other programs are required to take? Yes  No

If yes, what should be done to make sure those courses meet the needs of students in the other programs?

**Communication and coordination with the relevant departments**

b. Does the program require students to take courses taught by other departments? Yes  No

If yes, what should be done to make sure those courses in other departments meet the needs of students in this program?

**Considering students evaluations who have completed these courses**

3. Do the students who are likely to be enrolled in the program have any special needs or characteristics that should be considered in planning the program? (eg. Part time evening students, limited IT or language skills) Yes  No

If yes, what are they?

They should have a background in general sciences (Mathematics, Physics etc), English language (as a second language), Computer skills and an aptitude to learn Mathematics.

5. What should be done in the program to respond to these special characteristics?

Students have to be prepared in their first year in the college of science by giving them courses in English language, Basic mathematics, Computer skills, etc.

### C. Mission and Goals of the Program

1. Program Mission Statement:

To provide basic Mathematical concepts and skills within a high caliber program that produces competitive graduates capable of meeting the educational and developmental needs of the Kingdom in all domains relevant to Mathematics and its applications.

Goals and objectives:

- (1) To equip students with scientific qualifications required by the various public and Private sectors that require Mathematical skills.
- (2) To prepare students for teaching posts in educational institutions.
- (3) To prepare students for graduate studies leading to Master and Ph. D degrees.
- (4) To foster in its students rational thinking and to enhance their information Technology skills in the domain of mathematics.

2. List any major goals for the development of the program over a specified period (eg. five years). (These should be consistent with goals established for the institution) For each goal list or very briefly describe the major strategies to be followed to achieve the goals.

Major Changes or Developments	Strategies
Updating the contents of the existing courses and adding new some courses	Reviewing and updating the Program study plan periodically
Hiring distinguished faculty members	Increasing the salaries and improving contracts conditions
Upgrading the efficiency of the faculty members	Encouraging training, scientific research and attending national and international conferences
Improving students English language as a second language	Teaching some courses in English language
Supporting the program requirements with modern technology	Establishing a modern website and providing the computer labs with modern computers and software

## D. Program Structure and Organization

### 1 Program Description.

A program or department manual should be available for students or other stakeholders and a copy of the information relating to this program should be attached to the program specification.

This information should include required and elective courses, credit hour requirements and department/college and institution requirements, and details of courses to be taken in each year or semester. If this information is not included in the published statement provide additional details.

### 2. Development of Special Student Characteristics or Attributes

List any special student characteristics or attributes beyond normal expectations that the institution, college or department is trying to develop in all of its students. (eg. Eg. Particularly good at creative problem solving, leadership capacity, commitment to public service, high level of skills in IT). For each special attribute indicate the teaching strategies and student activities to be used to develop it.

Special Attributes	Strategies or Student Activities to Develop these Special Attributes	Evidences
Highly qualified and competitive graduates	Diversity in courses, texts and faculty members	Ability of graduates to peruse their graduate studies in high ranked universities and the success in their careers

### 3. Required Field Experience Component (if any) (Eg. internship, cooperative program, work experience)

Summary of practical, clinical or internship component required in the program.

Note that a more detailed Field Experience Specification comparable to a course specification should also be prepared for any field experience required as part of the program.

Not applicable

a. Brief description of field experience activity

b. List the major intended learning outcomes for the program to be developed through the field experience

c. At what stage or stages in the program does the field experience occur? (eg. year, semester)

d. Time allocation and scheduling arrangement. (Eg. 3 days per week for 4 weeks, full time for one semester)

e. Number of credit hours

### 4. Project or Research Requirements (if any)

Summary of any project or thesis requirement in the program. (Other than projects or assignments within

individual courses) (A copy of the requirements for the project should be attached.)
a. Brief description  Research project. The topics and contents vary depending on the ability of the student and the courses that he has completed.
b. List the major intended learning outcomes of the project or research task.  Ability to undertake research work by investigating and analysing mathematical results.
c. At what stage or stages in the program is the project or research undertaken? (eg. year, semester) After completing 100 credit hours.
d. Number of credit hours  3 credit hours.
e. Summary description of provisions for student academic advising and support.  Weekly meetings and discussions between the student and his supervisor.
f. Description of assessment procedures (including mechanism for verification of standards)  <ul style="list-style-type: none"> <li>Copies of the written project are provided to the examiners. The student defends his project before the examiners by presenting a short resume' of his project followed by the relevant question and answer session. Finally the deserving grade is awarded to the student.</li> </ul>

#### 5. Development of Learning Outcomes in Domains of Learning

For each of the domains of learning shown below indicate: <ul style="list-style-type: none"> <li>The knowledge or skill the program is intended to develop and the level of that knowledge and skill. (as a guide see general descriptions of knowledge and skills in the National Qualifications Framework for the qualification level of this program;</li> <li>The teaching strategies to be used in courses in the program to develop that knowledge and those skills. (This should be a general description of the approaches taken throughout the program but if particular responsibility is to be assigned to certain courses this should be indicated.);</li> <li>The methods of student assessment to be used in courses in the program to evaluate learning outcomes in the domain concerned.</li> </ul>
a. Knowledge
(i) Summary description of the knowledge to be acquired <ul style="list-style-type: none"> <li>Fundamentals of different branches of pure and applied mathematics.</li> <li>General sciences ( Physics, Chemistry and Statistics ).</li> <li>Computer skills.</li> <li>Social and ethical values.</li> <li>English Language as a second language.</li> </ul>
(ii) Teaching strategies to be used to develop that knowledge <ul style="list-style-type: none"> <li>Lectures.</li> <li>Tutorial classes.</li> <li>Home work assignments.</li> <li>Self readings.</li> </ul>
(iii) Methods of assessment of knowledge acquired <ul style="list-style-type: none"> <li>Quizzes, midterm exams and final exams.</li> <li>Homework assignments.</li> </ul>



b. Cognitive Skills
(i) Cognitive skills to be developed and level of performance expected <b>Reasonable and creative thinking, relating introductions to results and problem solving.</b>
(ii) Teaching strategies to be used to develop these cognitive skills <b>Lectures, seminars, and homework assignments.</b>
(iii) Methods of assessment of students cognitive skills <ul style="list-style-type: none"> <li>• <b>Homeworks,</b></li> <li>• <b>Projects,</b></li> <li>• <b>Exams.</b></li> </ul>
c. Interpersonal Skills and Responsibility
(i) Description of the level of interpersonal skills and capacity to carry responsibility to be developed <ul style="list-style-type: none"> <li>• <b>Ability to work individually or within a team.</b></li> <li>• <b>Learn the initiative spirit and bear responsibility for different situations.</b></li> </ul>
(ii) Teaching strategie <b>(1) Discussions through the lectures and tutorial classes.</b> <b>(2) Team work assignments.</b>
(iii) Methods of assessment of students interpersonal skills and capacity to carry responsibility <ul style="list-style-type: none"> <li>• <b>Homework assignments.</b></li> <li>• <b>Open discussion and posing questions through the lectures and the tutorial classes.</b></li> </ul>
d. Communication, Information Technology and Numerical Skills
(i) Description of the communication, IT and numerical skills to be developed <ul style="list-style-type: none"> <li>• <b>Extract high benefits from the use of the world wide web,</b></li> <li>• <b>Using mathematical software such as Matlap and Mathematica and getting advantages of the World Wide Web.</b></li> </ul>
(ii) Teaching strategies to be used to develop these skills <ul style="list-style-type: none"> <li>• <b>Lectures,</b></li> <li>• <b>Using computer laps,</b></li> <li>• <b>Homework assignments.</b></li> </ul>
(iii) Methods of assessment of students numerical and communication skills <ul style="list-style-type: none"> <li>• <b>Exams,</b></li> <li>• <b>Homework assignments</b></li> </ul>
e. Psychomotor Skills (if applicable)
(i) Description of the psychomotor skills to be developed and the level of performance required <b>Not applicable</b>

(ii) Teaching strategies to be used to develop these skills  <b>Not applicable</b>
(iii) Methods of assessment of students psychomotor skills  <b>Not applicable</b>

6. Admission Requirements for the program

Attach handbook or bulletin description of admission requirements including any course or experience prerequisites.

7. Attendance and Completion Requirements

Attach handbook or bulletin description of requirements for:

- Attendance.
- Progression from year to year.
- Program completion

**E. Regulations for Student Assessment and Verification of Standards**

1. Regulations or policies for allocation and distribution of grades

If the institution, college, department or program has policies or regulations dealing with the allocation or distribution of students grades state the policy or regulation, or attach a copy.

**The Ministry of Higher Education regulations for teaching and exams.**

2. What processes will be used for verifying standards of achievement (eg check marking of sample of tests or assignments? Independent assessment by faculty from another institution) (Processes may vary for different courses or domains of learning. )

- **Unified exams, group marking and group grading for multi-section courses.**
- **Internal assessment at the end of semester.**

**F. Student Administration and Support**

1. Student Academic Counselling

Describe arrangements to be made for academic counselling and advice for students, including both scheduling of faculty office hours and advice on program planning, subject selection and career planning (which might be available at college level)

- **Meeting new students.**
- **Provide counselling to the students.**
- **A weekly office schedule is displayed on each faculty member's office and a total of 10 hours are specified for the students to provide them extra assistance and help in solving their academic problems.**
- **A follow-up committee exist in the department to look after the needs of the teaching assistant's scholarship holders and the meritorious students.**
- **Displaying the department handbook on the website of the department.**

## 2. Student Appeals

Attach regulations for student appeals on academic matters, including processes for consideration of those appeals.

- Ministry of higher education regulations,
- University regulations of student's rights unit.  
(<http://www.ksu.edu.sa/sites/KSUArabic/Deanships/StudentsDeanships/law/Pages/>)

## G. Text and Reference Material

1. What process is to be followed by faculty in the program for planning and acquisition of text, reference and other resource material including electronic and web based resources?

- Texts and references are chosen by specialized committees in the department and finally approved in the departmental meeting.
- These texts and references are made available in an appropriate time by the book shop and the central library.
- Through writing original text books or translation of some standard books by the faculty members.
- Subscribing in the data bases to serve the research purposes.

2. What processes are to be followed in the program for evaluating the adequacy of book, reference and other resource provision?

- Reviewing the contents of these texts and references by the specialized committees in the department.
- Chairman follows up.
- Authored and translated texts are sent to referees.

## H. Faculty

### 1. Appointments

Summarize the process of employment of new faculty to ensure that faculty are appropriately qualified and experienced for their teaching responsibilities.

- Generally, meritorious graduates are employed as teaching assistants in the department, then they are provided with scholarships for MS and Ph.D. program. After the completion of the Ph.D. degree they are appointed as faculty members.
- Jobs for the academic staff are advertised nationally and internationally through all kinds of media (like internet , news papers and magazines), a committee appointed by the department examine the applications and classifies them, those to be considered for a position and those who do not meet the academic standards of the department.

### 2. Participation in Program Planning, Monitoring and Review

Explain the process for consultation with and involvement of faculty in monitoring program quality, annual review and planning for improvement

- Participation of faculty members in various academic committees,
- Any recommendations by these committees are discussed in the departmental council.

### 3. Professional Development

What arrangements are made for professional development of faculty for:

- (a) Improvement in skills in teaching?
- a. Workshops conducted by the deanship of development and quality assurance
  - b. Seminar lectures and colloquium.
- (b) Other professional development including knowledge of research and developments in their field of teaching.
- Sabbatical leaves
  - Conducting Seminar lectures and colloquium.
  - Attending national and international scientific conferences.
  - Distinguished professors in various topics are invited to visit the department.

### 4. Preparation of New Faculty

Describe the process used for orientation and/or induction of new, visiting or part time faculty to ensure full understanding of the program and the role of the course(s) they teach as components within it..

- Awareness workshop is conducted at the beginning of every academic year for new faculty members.
- Department handbook.
- Periodical meetings with heads of academic committees and course coordinators.
- Workshops conducted by the deanship of development and quality assurance

### 3. Part Time and Visiting Faculty

Provide a summary of Program/Department/ College/institution policy on appointment of part time and visiting faculty. (ie. Approvals required, selection process, proportion of total faculty etc.)

For the part time and visiting faculty, the same policy and process are followed as in the case of full time faculty members, but their number does not exceed 10% of the total faculty members

## I. Program Evaluation and Improvement Processes

### 1. Effectiveness of Teaching

<p>a. What processes will be used to evaluate and improve the strategies planned for developing learning in each of the domains of learning? (eg. assessment of learning achieved, advice on consistency with learning theory for different types of learning, assessment of understanding and skill of faculty in using different strategies)</p> <ul style="list-style-type: none"><li>• Workshops</li><li>• Faculty course-evaluation</li><li>• Students teacher- evaluation</li><li>• Students course-evaluation</li></ul>
<p>b. What processes will be used for evaluating the skills of faculty in using the planned strategies</p> <ul style="list-style-type: none"><li>• Internal assessment.</li><li>• Student's teacher-evaluation.</li></ul>

### 2. Overall Program Evaluation

<p>a. What strategies will be used in the program for obtaining assessments of the overall quality of the program and achievement of its intended learning outcomes:</p>
<p>(i) from current students and graduates of the program?</p> <p><b>Graduated and enrolled student's surveys.</b></p>
<p>(ii) from independent advisors and/or evaluator(s)?.</p>
<p>(iii) from employers and/or other stakeholders.</p> <p><b>Employer's surveys.</b></p>
<p>b. What key performance indicators will be used to monitor and report annually on the quality of the program?</p> <p><b>Department annual report.</b></p>
<p>(Add additional KPIs if desired)</p>
<p>c. What processes will be followed for reviewing these assessments and planning action to improve the program?</p> <p><b>These assessments will be considered in updating and developing the program study plan.</b></p>