# KING FAISAL UNIVERSITY حامعة الملك فيصل



# **Department of Mathematics & Statistics**

**Faculty Guideline Book** 



# Department of Mathematics and Statistics College of Science King Faisal University

Presents

# **Faculty Guideline Book**

for Quality Assurance

# Prepared by

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First edition: December 2018

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# Preface

The aim of this handbook is to director the faculty towards the activities and policies that are adopted by the department.

One of the important parameter that enlighten the path of the success of any program is the "Uniformity". In this case, the uniformity refers to the uniform teaching methods, course coverage plans, assessments and grade distributions etc., which are extremely required for a course with multiple sections handling by two or more instructors. This handbook will guide the faculty in this regard.

The quality and outcomes of any activity can be determined by its measurement and the measurement without evidence is nothing but fuzzy. This booklet provide the step by step methods about the collection storage of evidences required for the measurements.

Beside that this handbook gives an essential information to the faculty members that help them to adjust with the system quickly.

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# 1. About the department

The journey of the Department of Mathematics has been started in 1980 G (1400 H) as a scientific department in the Faculty of Education at King Faisal University. Later on, by enhancing and modifying the study plans in a great extent and standard with the aspirations of the University and Country, the Department of Mathematics and Statistics started its own journey as an individual department under College of Science in the year 2002 G (1423 H). Since then, the department has produced sveral undergraduates and post graduates. The department not only developed its own curriculum but also extended its services to other colleges in the university those who required for the basic mathematics courses. At present, it is one of the largest departments in King Faisal University, with about 80 faculty members and including supporting staff. Currently, the department provides the following programs:

#### • Bachelor of Science (B.Sc.) in Mathematics and Statistics:

This is a four year (Eight semesters) program. The requirements for the award of this degree is; student must clear 129 credit hour courses. The student has to clear these credit hours as mentioned below:

- A. University Requirements (9 Courses, 19 Credit hours)
- B. College Requirements (7 Courses, 26 Credit hours)
- C. Department Requirements (29 Courses, 84 Credit hours)

For more details about the program please visit the following link: <u>https://www.kfu.edu.sa/ar/Colleges/Science/Departments/Documents/MathDept/BachelorProg</u>. .htm (Arabic)

• Master of Science (M.Sc.) in Mathematics and Statistics: Master's program in mathematics, which began in the academic year 2000(G) corresponding to the year 1420-1421(H) and the duration of the study six semesters and get a master's degree in mathematics after finishing 42 units or 24 units with a thesis.

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# 2. Regular Work Flow

In this section, we will find a systematic work flow related to teaching strategies, policies and uniform examination.

In th	e beginning of th	ne semester			
	Task	By	То	Time frame	Remark
2.1	Distribution of Course schedules	Time table In-charge through HOD	Individual faculty member	One week before the starting the semester	It will send to all faculty member through official email.
2.2	Selection and distributions the name of course coordinator	Time table In-charge through HOD	All faculty member	One week before the commencement of semester	Through an email to containing the list of coordinators for each courses and associated course instructors
2.3	Course Specifications and policies	Course coordinator	Course instructors involved in the concern course	At least one day before the first class	Course coordinator is responsible to make course policies and time fame of the coverage the contents of the course. It is general advice to take the consent of all instructors.
2.4	Submission of time table, Short CV and details CV	Individual faculty members	In-charge of the department quality team	Within two week of the semester	Submitted to the designated folder in the Dropbox and pre-defined format.
Duri	ing the semester.				
	Task	By	То	Time frame	Remark

	1 451	Ву	10		Ktillal K
2.5	Uniform course	The course	Dept. chair	After $4^{\text{th}} - 8^{\text{th}} - 12^{\text{th}}$	Following the
	coverage report	coordinator		week	course instructors
					the course
					coordinator need
					to prepare a report
					highlighting the
					coverage of
					course as per

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	1				
					timeline fixed in
					the beginning of
					the semester.
2.6	Preparation and	The course	Course	According to pre-	The quizzes
	distributions of	coordinator	instructors	fixed time line by	should be uniform
	quizzes and			the coordinator	(or same level of
	assignments				difficulties) and if
					possible, on the
					same topics
					across all sections
					of the course.
					Assignment
					should be through
					the blackboard
					and same set of
					questions
27	Fixing the	Examinatio	All faculty	At least one	Fix the date and
2.1	schedule of	n control	members	week hefore the	exam room
	midterms	committee	members	examination	according to the
	examinations	committee		week generally	availability Also
	examinations			7 <sup>th</sup> and 12 <sup>th</sup> week	availability. Also
				/ allu 12 week	assign nivignator
					as per
					Distributions of
					Distributions of
					be done in
					oduonee that give
					auvance mai give
					enough time to
					coordinator for
					preparations of
2.0	D 1	G	0		question papers
2.8	Preparation and	Course	Course	One day before	General advice to
	distributions	coordinator	instructors	the exam date as	discuss with all
	midterms exam			per schedule	instructors but it
	paper				will be the
					decision of
					coordinator for
					the final version
					of the question
					paper.
2.9	Key solution of	Course	Course	Exam day or as	The key solution
	exam papers	coordinator	instructors	soon as possible	must reflects step
				after that.	by step marking
					that help uniform
					grading across the
					sections

	1		T		1
2.10	Validation of uniform grading	Course coordinator	Course instructors for providing sample	For all exams: Midterms and final	To verify that instructors follow the key solutions for grading. The requested sample
			graded answer sheets		file will be random choice of coordinator. Only after the approval of the coordinator, the instructors can display the grades
					and graded answer sheet to the students.
2.11	Displaying the grades out of (60)	Course coordinator	Students for his/her sections	For all activities: Quizzes, Assignments, each Midterm	All grades should be display only through the blackboard.
Duri	ng end of the ser	nester			
	Task	By	To/ from	Time frame	Remark
2.12	Fixing the schedule of midterms examinations	Examinatio n control committee	All faculty members	As per the schedule of university generally 16 <sup>th</sup> & 17 <sup>th</sup> week of the semester	Fix the date and exam room according to the availability. Also assign invigilator as per requirements.
2.13	Preparation and distributions final exam paper, Key solution	Course coordinator	Course instructors	As per announced schedule	As in the midterm.
2.14	Validation of uniform grading	Course coordinator	Course instructors	As soon as possible after the exam	As mention in the case for midterm. However, final exam marks should not be displayed through blackboard.
2.15	Uploading the marks in the banner	Course instructors		After approval the uniform grading by the coordinator	Upload it in the banners as draft. Also provide the details grade table to the coordinator.

			1	1
Getting approval of the drafted banner grades	Course coordinator	The chairman	After all instructors provide the draft version banner grades and details table of grades	Course coordinator will convey the modification (if any) as suggested by the chairman. Incorporating all changes submit the final version of the grade in the banner. Follow the approval chain process in the banner – (i) by chairman (ii) by dean. Then, only the final grades will display to the students.
the semester (q	uality record	purpose)	I	
Task	By	To/ from	Time frame	Remark
Uploading grades in google interactive file	Course instructors	Google sheet	Before the semester break/summer break	The quality team will provide a link of google sheet. Each instructor need to fill the required data. For a sample see Appendix C
Course report and related documents	Course instructors	Dropbox pre-assigned folder	As per notification from quality team	The quality team will provide a link of Dropbox. Each instructor fill the NCAAA form for course report and all required documents. For more details see Section 3
Course Portfolios	Course Coordinator	Dropbox pre-assigned folder	As per notification from quality team	The quality team will provide a link of Dropbox. Each coordinator need to fill the NCAAA form for combined course report and all required documents. This folder includes
	Getting approval of the drafted banner grades the semester (q Task Uploading grades in google interactive file Course report and related documents Course Portfolios	Getting approval of the drafted banner gradesCourse coordinatorthe semester (quality record p TaskByUploading grades in google interactive fileCourse instructorsCourse report and related documentsCourse instructorsCourse PortfoliosCourse Course finstructors	Getting approval of the drafted banner gradesCourse coordinatorThe chairmanthe semester (quality record purpose)To/ fromTaskByTo/ fromUploading grades in google interactive fileCourse instructorsGoogle sheetCourse report and related documentsCourse instructorsDropbox pre-assigned folderCourse PortfoliosCourse instructorsDropbox pre-assigned folder	Getting approval of the drafted banner gradesCourse coordinatorThe chairmanAfter all instructors provide the draft version banner grades and details table of gradesthe semester (quality record purpose)To/ fromTime frameTaskByTo/ fromTime frameUploading grades in google interactive fileCourse instructorsGoogle sheetBefore the semester break/summer breakCourse report and related documentsCourse instructorsDropbox pre-assigned folderAs per notification from quality teamCourse PortfoliosCourse coordinatorDropbox pre-assigned folderAs per notification from quality team

					the files for each
					section of the
					course. For more
					details see
					Section 3
2.20	Course	Course	Course	As per	Each instructor
	workshop (PPT)	Coordinator	instructor	notification from	need to prepare a
			for section	quality team	predesigned PPT
			wise PPT		for his/her section
					and drop the PPT
					in pre-assigned
					folder Using the
					information
					coordinator will
					prepare a
					combined PPT
					and will present in
					the workshop that
					must be attained
					by all faculty
					member.
End	of the academic	vear (quality	record nurno	(a2	
Linu	Task	D	Tecora parpo		
	LASK	BV	'I'o/ from	Time frame	Remark
2.21	Training/worksh	By Individual	To/ from Enter the	<b>Time frame</b> From the date of	<b>Remark</b> List number of
2.21	Training/worksh op programs	By Individual faculty	To/ from Enter the data in	Time frame From the date of announcement to	Remark List number of program you
2.21	Training/worksh op programs attendants for	By Individual faculty members	To/ from Enter the data in google sheet	<b>Time frame</b> From the date of announcement to 15 <sup>th</sup> September of	<b>Remark</b> List number of program you attend from 16 <sup>th</sup>
2.21	Training/worksh op programs attendants for professional	By Individual faculty members	To/ from Enter the data in google sheet	Time frameFrom the date of announcement to $15^{th}$ September of next academic	RemarkList number of program you attend from 16thSeptember/year to
2.21	Training/worksh op programs attendants for professional developments	By Individual faculty members	To/ from Enter the data in google sheet	Time frameFrom the date of announcement to $15^{th}$ September of next academic year	RemarkList number of program you attend from 16thSeptember/year to 15th
2.21	Training/worksh op programs attendants for professional developments	<b>By</b> Individual faculty members	To/ from Enter the data in google sheet	Time frameFrom the date of announcement to $15^{th}$ September of next academic year	RemarkList number of program you attend from 16thSeptember/year to 15thSeptember/year to
2.21	Training/worksh op programs attendants for professional developments	<b>By</b> Individual faculty members	To/ from Enter the data in google sheet	Time frame From the date of announcement to 15 <sup>th</sup> September of next academic year	RemarkList number of program you attend from 16thSeptember/year to 15thSeptember/next academic year. As
2.21	Training/worksh op programs attendants for professional developments	By Individual faculty members	To/ from Enter the data in google sheet	Time frameFrom the date of announcement to 15th September of next academic year	RemarkList number of program you attend from 16thSeptember/year to 15thSeptember/year to academic year. As evidence drop all
2.21	Training/worksh op programs attendants for professional developments	<b>By</b> Individual faculty members	To/ from Enter the data in google sheet	Time frame         From the date of         announcement to         15 <sup>th</sup> September of         next academic         year	RemarkList number of program you attend from 16thSeptember/year to 15thSeptember/year to academic year. As evidence drop all certificates in the
2.21	Training/worksh op programs attendants for professional developments	By Individual faculty members	To/ from Enter the data in google sheet	Time frame From the date of announcement to 15 <sup>th</sup> September of next academic year	RemarkList number of program you attend from 16thSeptember/year to 15thSeptember/next academic year. As evidence drop all certificates in the pre-assigned
2.21	Training/worksh op programs attendants for professional developments	By Individual faculty members	To/ from Enter the data in google sheet	Time frame From the date of announcement to 15 <sup>th</sup> September of next academic year	RemarkList number of program you attend from 16thSeptember/year to 15thSeptember/next academic year. As evidence drop all certificates in the pre-assigned folder
2.21	Training/worksh op programs attendants for professional developments	By Individual faculty members Individual	To/ from Enter the data in google sheet Enter the	Time frame         From the date of         announcement to         15 <sup>th</sup> September of         next academic         year	RemarkList number of program you attend from 16thSeptember/year to 15thSeptember/year to academic year. As evidence drop all certificates in the pre-assigned folderList number of
2.21	Training/worksh op programs attendants for professional developments Conference attendant	By Individual faculty members Individual faculty	To/ from Enter the data in google sheet Enter the data in	Time frameFrom the date of announcement to 15th September of next academic yearFor the date of announcement to	RemarkList number of program you attend from 16thSeptember/year to 15thSeptember/next academic year. As evidence drop all certificates in the pre-assigned folderList number of program you
2.21	Training/worksh op programs attendants for professional developments Conference attendant /organize	By Individual faculty members Individual faculty members	To/ from Enter the data in google sheet Enter the data in google sheet	Time frameFrom the date of announcement to 15th September of next academic yearFor the date of announcement to 15th September of	RemarkList number of program you attend from 16thSeptember/year to 15thSeptember/next academic year. As evidence drop all certificates in the pre-assigned folderList number of program you attend from 16th
2.21	Training/worksh op programs attendants for professional developments Conference attendant /organize	By Individual faculty members Individual faculty members	To/ from Enter the data in google sheet Enter the data in google sheet	Time frameFrom the date of announcement to 15th September of next academic yearFor the date of announcement to 15th September of next academic	RemarkList number of program you attend from 16thSeptember/year to 15thSeptember/year to academic year. As evidence drop all certificates in the pre-assigned folderList number of program you attend from 16th September/year to
2.21	Training/worksh op programs attendants for professional developments Conference attendant /organize	By Individual faculty members Individual faculty members	To/ from Enter the data in google sheet Enter the data in google sheet	Time frameFrom the date of announcement to 15th September of next academic yearFor the date of announcement to 15th September of next academic year	RemarkList number of program you attend from 16thSeptember/year to 15thSeptember/next academic year. As evidence drop all certificates in the pre-assigned folderList number of program you attend from 16th September/year to 15th
2.21	Training/worksh op programs attendants for professional developments Conference attendant /organize	By Individual faculty members Individual faculty members	To/ from Enter the data in google sheet Enter the data in google sheet	Time frameFrom the date of announcement to 15th September of next academic yearFor the date of announcement to 15th September of next academic year	RemarkList number of program you attend from 16thSeptember/year to 15thSeptember/next academic year. As evidence drop all certificates in the pre-assigned folderList number of program you attend from 16th September/year to 15thSeptember/year to 15th
2.21	Training/worksh op programs attendants for professional developments Conference attendant /organize	By Individual faculty members Individual faculty members	To/ from Enter the data in google sheet Enter the data in google sheet	Time frame         From the date of         announcement to         15 <sup>th</sup> September of         next academic         year         For the date of         announcement to         15 <sup>th</sup> September of         next academic         year	RemarkList number of program you attend from 16thSeptember/year to 15thSeptember/year to academic year. As evidence drop all certificates in the pre-assigned folderList number of program you attend from 16th September/year to 15thSeptember/next academic year. As
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2.23	Publication records	Individual faculty members	Enter the data in google sheet	From the date of announcement to 15 <sup>th</sup> September of next academic year	List number of program you attend from 16th September/year to 15 <sup>th</sup> September/next
					academic year.
2.24	Number of	Individual	Enter the	For the date of	List number of
	projects	faculty	data in	announcement to	projects from
	(internal/external	members	google sheet	15 <sup>th</sup> September of	outside university,
	:completed			next academic	total approved
	/Ongoing)			year	amount &
					duration of the
					project.

### 3. The Quality Management Team's Work Flow

This section will highlight one of the best mechanism that collect and preserved all kind of possible evidences for the justification of the outcomes collected by the task 2.17 to 2.24. Due to its high significance, the departmental core committee involving chairman of the department and quality team decided to introduce step by step validation system by setting several sub-committee for each purpose. The core committee also set some time frame to each sub-committee for the completion of the assign task. The advantage of the introductions of the subcommittees are multifold. It involves maximum faculty members in the quality and development program that naturally improve the quality of the reports and file managements.

The complete quality management team's work flow can be visualize two ways:

- 1. **Technical management:** Describe how the documents are collected in systematical hierarchy of folders in the Dropbox.
- 2. Validation management: Describe how the subcommittees review, verify and follow up all submitted documents to make it up most perfect.

Before illuminating above two management system let's introduce you some key terms: **Course Specifications (CS):** A standard format that contains information about the course like as course objective, course coverage plan, course grading policies, course learning outcomes. It is responsibility of the **Course Coordinator** to distribute the CS to course instructors. After several amendment department committee already prepared a standard course speciation according to the latest NCAAA format. It is highly recommended that Course instructor and course coordinator follow those preexisting course specification. However, the course coordinator can propose, if it is required, a modification with proper justification to the chairman for further action.

- **Course Report:** Prepared by the each course instructor for all section separately on the latest NCAAA format.
- **Course files:** A file prepared and submitted by the Course instructor separately for all sections in course containing twelve (12) items as per the below model checklist.
- **Course Portfolio:** A portfolio (a single folder) prepared and submitted by the Course coordinator that contains all individual section wise course file in addition of the required items as listed in the above check list.

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### **Technical management:**

A. Hierarchy of folders in the Dropbox for the collection of required documents. Access of the folder according to the tasks given only to the relevant subcommittee members

			Co	urse-1	wise A	ctivities	(Coor	dinator	)						Secti	on-w	ise A	ctiviti	es(Instructo	r)			
C.	F Co	0 ver Pag Section F	ge	CF Che cklis t	2 CS (NEW NCAA A format)	3 CCCR (Campr ehersive Combin ed Caurse Report)	4 Sylla bus (Part C of Cours e Speci ficati on)	5 Model Answ ers of All Exams( Midterm Exam(s) & FinalE xam	I CLOs - Assessm ent Mappin g Matrix- Course-	II G4 (Grade Analy sis)	III Course Improv ement Action Plan for Next Semes ter (Part	1 Sectio nFile Chec klist	2 Shor t CV	3 CR (NEW NCAA A format )	4 Bann er Final Resu Its	5 Resu Its Stats écs	6 Cour se Eval uatio n (Pa rt F of Cou	7 Suggesti ons for Course Improve ment: Action Plan for Next Semeste r	8 Samples of Students' Works (Quizzes, Homswork, Reports Three (3) Sciences	Sa Te Sti I	mple sts gi idents dterm Exam( &Fina Exam <i>hree</i>	es of ven (Mi (s) al ))	12 CLOs- Assess ment Mappin g Matrix
Nam e of fhe Teac her/s	Cour se Title and Cour se Code	Section File's Serial # in CF	Se c#						Level		G(3) of Cours e Report )						rse Rep ort)	(Part G(3) of Course Report)	Highest Avg o west	9 Hig he	10 Avg	11 Lo we st	Section -Level
xxx	Calc	6	01	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	ulus II	7	60									v	v	v	v	v	v	v	v	v	v	v	v
ууу	Mat • h 211 •	8	61									v	v	v	v	v	v	v	v	v	v	v	v
		9	62									v	v	v	v	v	v	v	v	v	v	v	v
		10	63									v	v	v	v	v	v	v	v	v	v	v	v
		11	64									v	v	v	v	v	v	v	v	v	v	v	v
		12	65									v	v	v	v	v	v	v	v	v	v	v	v

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#	Abbreviations	Full Name
1	CRP-ALL	Course Report Presentations for All Sections
2	CRP-Cor	Course Report Presentations for Course Coordinators
3	C4OCO138	Math courses for other colleges
4	CFC4OCO138	Course files of Math courses for other colleges
5	MSc138	Mathematics MSc Plan for Science Students
6	BSc138	Mathematics BSc Plan for Science Students
7	CFMSc138	Course files of Math courses for the other colleges
8	SCV4CF138	Short CVs for the Course Files 138 use
9	CV138	CVs for Semester 138
10	CCCPs-Cor	Cumulative Comprehensive Course Reportsby Course
10	CCCRS-COI	Coordinators
11	CER-ALL	Course Evaluation Report-for ALL Sections
12	BFR-ALL	Banner Final Result-for ALL Sections
13	ResultStat-ALL	Result Statistics for Final Exam-for ALL Sections
	HS-ALL	Highest Sample of the Final and Midterm Exams-for ALL
14		Sections
	AS-ALL	Average Sample of the Final and Midterm Exams-for ALL
15		Sections
	LS-ALL	Lowest Sample of the Final and Midterm Exams-for ALL
16		Sections
1.5	ModelAns Cor	Model Answers of the Final and Midterm Exams -by Course
17	WoderAns-Cor	Coordinators
18	Syllabus-Cor	Syllabus-by Course Coordinators
19	CLOs-Cor	Course Learning Outcomes -by Course Coordinators
20	HWOZSALI	Three Samples(Highest, Avg, &Lowest) for the Home
20	11 VV (225-ALL	Works and Quizzes-for ALL Sections

	instructor Name		Malal Toubard	wajur rounam Mamdouh Elborolosy		Dr. wajdi Touhami	Dr. Nejl Saldi	Mamdouh Elborolosy		Dr. Nell Sald					Dr. Bana AlSubalel								Dr. Bana AlSubalel			Mamdouh Elborolosy	Dr.Naseam Alkolelb				
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# B Sample Google sheet for the collection of grade outcomes data

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Acknowledgement: The above template of google Sheets and hierarchy of folders in the Dropbox is the creation of Lect. Mohamed Nour Ibrahim Ismail (mismail@kfu.edu.sa), In-charge of the DQAC, Department of Mathematics and Statistics, College of Science.

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### Validation managements:

Few general instructions:

- The instructors must follow the assessment methods stated in CS.
- It is obligatory to unify all exams, quizzes, home works, etc., for the all section of a provided course. The only exception if the department decides to conduct the any of course work components separately. In such case, the coordinator must prepare equivalent different samples.
- All course works must be discussed by involved instructors. It is not acceptable to dominate it by any.
- In order to avoid any diversity in paper marking, all paper to be marked upon the answer key designed by the coordinator.
- Home works must be checked and corrected. Any given marks for only submission will be rejected.
- No marks to be assigned for attendance.
- In case the instructors agree to give weight for participation, then it must be clear and measurable.
- Re-take exams allowed only for whom approved by college Vice-Dean.
- It is the responsibility of the chairman to settle any conflict occurs between the instructors.

Sub-committee	In charge	members	Task description
Course portfolio reviewer	Level-1 Level-2 Level-3 Level-4 Level-5 Level-6 Level-7 Level-8	Dr. Fatemah Almukahal Dr. Wajdi Touhami Dr. Mamdouh Elborolosy Dr. Mohamed Jebalia Dr. Adel Elmandouh Dr. Noomen Jarboui Dr. Marouane Rabaoui Dr. Chokri A Mnasri	<ol> <li>Review each course files and course portfolio.</li> <li>Listed all shortcoming in the predefined table (Appendix –D)</li> <li>Inform course coordinator to amend files as recommended along with course instructors</li> <li>Review the amended file and produce final report.</li> <li>If course coordinator/ instructor do not respond, please inform the chairman</li> <li>*Task should be completed within the stipulated time (In each semester)</li> </ol>
Review of quarterly course coordination report	Mr. Saeed	l Alshehri	Review all quarterly reports submitted by the coordinator and highlights disputes (if any) to the head of the department.

### QA committee structure.

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Crosscheck	Dr. Ahmad Alabdulaali	Review the comments by the coordinator and
reports of Uniform		address all dispute (if any).
grading of		
Exist Survey	Dr. Neiji Saidi	To collect the graduating students feedback on the
team		predefined questions set and prepare a report.
		Survey: Middle of the second semester
		Report: End of the academic year
Alumni Survey	Dr. Emad S Fadhal	To contact the alumni over phone to collect the most updated job status, kind of job etc.
		Survey: Middle of the second semester
		Report: End of the academic year
PLO	Dr. Ramzi May &	To calculate the program learning outcome by
Assessment	Prof. H. Mir	Time frame:
		Report: End of the each semester.
Workshop	Dr. Marouane(organize	To prepare a details report on the grades of each
Report	CRW & Review the	courses as per the comments & suggestions by the
	report)	course coordinators during the Course report
	Prof. H. Mir. & Dr.	workshops. Time frame:
	Mounir Elloumi	Workshop: After the completion of each semester
	(Analysis data and prepare a Report)	Report: End of each semester.
	Dr Saiful	
	Rahman(Provide data	
	and help to prepare the	
	report)	
Self-Study	Dr. Meraa Arab &	Periodical update of SSRP
Report for	Dr. Wajdi Touhami	
(SSRP)		
Program	Dr. Mamdouh Elsaied	Periodical review of PS
Specifications (PS)	Elborolosy	
Annual	Dr. Saiful Rahman	Collect all reports from the above mention sub-
Program		committees and prepare well documented and
Report		analytical reports reflecting the activities and outcomes, complications and action plans for next
		Time frame:
Eirst edition: Decemb	or 2018	Report and data collection: End of academic year

		Report: Starting of the next academic year
In-Charge	Lect. Mohamed Nour	Creating and distributing the link of Dropbox
Departmental	Ibrahim Ismail	folders for the storage of evidence and collections
Quality		for data statistics.
Assurance		Representing the department in college and
Committee		university for all quality activities.
(DQAC)		

# Quality Tasks Time Table

Week #	Tasks
Pre-semester	Building <i>CS</i> in accordance with proposed action plans in last
	semester. Notice that the contents of the course must be clearly
	discussed and distributed on weeks of the semester.
1 <sup>st</sup> week	Uploading all related in Black Board including CS, old exams,
	solved problems, lecture notes and references.
4 <sup>th</sup> week	All coordinators asked to submit the 1 <sup>st</sup> <i>Quarter Report</i> .
8 <sup>th</sup> week	All coordinators asked to submit the 2 <sup>nd</sup> <i>Quarter Report</i> .
12 <sup>th</sup> week	All coordinators asked to submit the 3 <sup>rd</sup> <i>Quarter Report</i> .
13 <sup>th</sup> week	Cross Check for all course works conducted previously.
15 <sup>th</sup> week	All coordinators asked to submit the 4 <sup>th</sup> <i>Quarter Report</i> .
16 <sup>th</sup> -18 <sup>th</sup> week	Collect and expose results by course coordinator in section-wise
	and course-wise forms. He is also asked to explain any diversity
	between sections and to suggest make up formula if needed.
19 <sup>th</sup> week	Constructing QA files section level.
20 <sup>th</sup> week	Constructing QA files <i>course level</i> .

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# Appendix A :Step by step method to measure course learning outcomes

#### **Sections Wise**

- 1. The instructor enters the grades of the final exam to the interactive file.
- The departmental quality team will review all grades and will select 10 student samples using the K.S. method for uniform sample selection. The final exam answer sheet of those 10 students will be considered for measuring all CLOs. For the sections having less than 10 students all samples need to be considered.
- 3. Each instructor will enter the obtained grades from each sample as per the distributed weight of grades for each CLO.
- 4. Calculate the average of each CLO.
- 5. Define four performance vectors, namely,

E: Excellent (student applies knowledge with virtually no conceptual or procedural errors),

**A**: Adequate (student applies knowledge with no significant conceptual errors and only minor procedural errors),

**M:** Minimal (student applies knowledge with occasional conceptual errors and only minor procedural errors)

**U: unsatisfactory** (student makes significant conceptual and/or procedural errors when applying knowledge)

 The range of the performance vectors E, A, M, U will depend on the individual. But for Mathematics program, the range is set uniformly across all courses as follows:

 $E(\geq 85\%), A(70\% - 85\%) M(55\% - 70\%) U(< 55\%)$ 

7. The performance of a particular CLO is acceptable if

Average ( $\geq 55\%$ ) and  $U \leq 30\%$ .

In other cases, the instructor need to provide an action plan to improve the performance in that particular CLO.

#### **Combined All section (for course)**

Consider the data for all sections as stated in Step 3. Then repeat the Step 4- Step 7 to measure CLOs in the course.

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# Appendix –B: Curriculum B.Sc. Mathematics and Statistics

Level	Course Code	Course Title	Credit Hours	College or Department
	0817103	General Mathematics	3	Dept. of Mathematics
	0815101	General Chemistry(1)	4	Dept. of Chemistry
Level 1	0814101	General Physics(1)	4	Dept. of Physics
	0816101	General Biology	4	Dept. of Bio
	0231101	Health and Fitness	2	College of Education
	0814102	General Physics(2)	4	Dept. of Physics
	0817110	Calculus (1)	3	Dept. of Mathematics
Level 2	1700101	General English	3	College of Arts
	0817124	Logic and Methods of Proof	2	Dept. of Mathematics
	0817126	Set Theory	2	Dept. of Mathematics
	0814201	General Physics(3)	4	Dept. of Physics
	0817211	Calculus (2)	3	Dept. of Mathematics
	0817180	Introduction to Computer Science	3	Dept. of Mathematics
Level 3	0817231	Principles of Algebra	3	Dept. of Mathematics
	0817233	Linear Algebra	3	Dept. of Mathematics
	7401301	Contemporary Cultural Issues	2	College of Arts
	0817212	Calculus (3)	3	Dept. of Mathematics
	0817214	Ordinary Differential Equations	3	Dept. of Mathematics
	0817207	Introduction to Statistics	2	Dept. of Mathematics
Level 4	0817242	Principles of Analysis	3	Dept. of Mathematics
	7402102	Arabic Editing	2	College of Arts
	0817280	Introduction to Programming	3	Dept. of Mathematics

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	0817331	Algebra (1)	3	Dept. of Mathematics
1	0817341	Real Analysis (1)	3	Dept. of Mathematics
	0817371	Probability Theory	3	Dept. of Mathematics
Level 5	0817373	Transformational Geometry	3	Dept. of Mathematics
		Optional course from Faculty of Arts	2	College of Arts
	7402103	Literary Appreciation	2	College of Arts
	0817332	Algebra (2)	3	Dept. of Mathematics
	0817342	Real Analysis (2)	3	Dept. of Mathematics
L 16	0817344	Complex Analysis	3	Dept. of Mathematics
Level 6	0817374	Statistics and its Applications	3	Dept. of Mathematics
	1708103	Scientific English	2	College of Arts
	0814223	Waves	3	Dept. of Physics
	0817411	Numerical Analysis	3	Dept. of Mathematics
	0817412	Partial Differential Equations	3	Dept. of Mathematics
Level 7	0817443	Differential Forms and Vector Analysis	3	Dept. of Mathematics
	0817471	Foundations of Geometry	3	Dept. of Mathematics
	0814204	Modern Physics	3	Dept. of Physics
	0817484	Functional Analysis	3	Dept. of Mathematics
	0817413	Applied Mathematics	3	Dept. of Mathematics
Level 8	0817462	Topology	3	Dept. of Mathematics
	0817434	Number Theory	3	Dept. of Mathematics
		Optional course from Faculty of Arts	2	College of Arts

# Appendix –C: Curriculum M.Sc. Mathematics and Statistics

#### Study system:

There are two tracks for the program:

#### Track 1:

Course Track: The student successfully passes 42 units

(24 Compulsory units, 16 electives units, one course Research Project (2) units)

#### Track2:

*Course and thesis:* The student successfully passes 24 Compulsory units, in addition to preparing an accepted thesis in one of the branches of mathematics.

#### **Duration of the program**: six semesters.

Year	Course Code	Course Title	Pre- Requisite Courses	Credit Hours
	08171601	Numerical Analysis I		3
	08171631	Abstract Algebra I		3
First	08171641	Real Analysis I		3
	08171643	Complex Analysis I		3
	Total			12
	08171632	Abstract Algebra II	08171631	3
Second	08171642	Real Analysis II	08171641	3
(Pure Math.)	08171644	Complex Analysis II	08171643	3
	08171660	Topology		3
	Total			12
	08171602	Numerical Analysis II	08171601	3
	08171604	Ordinary differential equations I	08171642	3
Second (Applied Math.)	08171606	Partial Differential Equations	08171644	3
(Tppned Watth)	08171608	Mathematical Methods		3
	Total			12
		Elective Course 1		4
		Elective Course 2		4
		Elective Course 3		4
Third		Elective Course 4		4
(Courses' track)	08171600	Research Project		2
	Total			18
Third (Thesis's track)	08171700	Thesis		8

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# **Appendix** –**D:** Other Colleges Courses

## College of Engineering

Course Code	Course Name	Credit Hours
MATH144	Calculus 1	4
MATH145	Calculus 2	4
MATH240	Differential Equations	3
MATH215	Mathematics for EE	3
MATH246	Linear Algebra	3
MATH244	Multivariate Calculus	3

### College of Computer Science and Information Technology

Course Code	Course Name	Credit Hours
MATH111	Calculus	3
MATH125	Logic and methods of proof	3
MATH208	Introduction to statistics and theory of Probability	3
MATH301	Discrete Mathematics	3
MATH302	Numerical analysis	3

### College of Agricultural and Food Sciences

Course Code	Course Name	Credit Hours
MATH160	General Mathematics	3

#### College of Veterinary Medicine

Course Code	Course Name	Credit Hours
MATH150	Mathematics	2

## College of Arts

Course Code	Course Name	Credit Hours
MATH130	Principles of Statistics	2
MATH 131	Principles of Statistics	3

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## **Appendix** –E: Information for the New Faculty Members

#### **General Information**

- 1. After the arrival, the very first thing the faculty member need to visit the contract department in the administrative building 2<sup>nd</sup> level to all required documents and do the medical test.
- 2. After receiving medical test report, please visit the Passport department near to the contract department.
- 3. The contract department will allot you an employment id, and upon receiving that id, visit the IT department in the administrative building 4<sup>th</sup> level to create your KFU email id. Please note that this id and password is required to assess all the services in the university.
- 4. For further issues related to the above cases you may visit the inquiry office near the contract department.
- 5. Issue a university ID card from the Security building.

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## Appendix –F: Some useful web links

Important link:

- 1. <u>Electronic communicative system for administrative purpose:</u> sign through your university email id and password.
- 2. <u>Banner system:</u> sign through your university email id and password. Here, you will find all of your allotted course. You need to maintain attendance of the students through this system.
- 3. <u>Blackboard</u>: For the communication with students regarding course syllabus, course grading system, home assignment etc. For more information regarding black board system please visit <u>https://delgate.kfu.edu.sa/etraining/MainTrainingPortal.aspx</u>

For KFU blackboard: https://reglms.kfu.edu.sa/

- 4. <u>University Service Portal</u>: you will find here all of your personal details regarding finance, leave, air tickets etc.
- 5. <u>Deanship of Scientific Research</u>. For all activities regarding research projects.
- 6. <u>Deanship of Development and Quality Assurance(DDQA)</u> for all training programs.
- 7. <u>Deanship of Library affairs</u> : For books, journals and access of online services like Plagiarism checking.
- 8. Saudi Digital Library : For accessing all research journals
- 9. <u>University Medical clinic</u> : sign through your university email id and password.

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