



Field Experience Specifications

Course Title:	Cooperative Training (COOP)
Course Code:	0676-499
Program:	Bachelor's in risk and Insurance
Department:	Quantitative Methods
College:	School of Business
Institution:	King Faisal University

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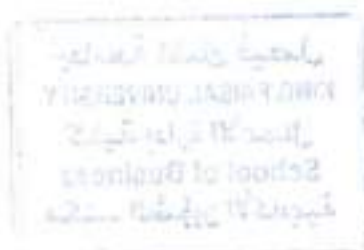


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A. Field Experience Identification

1. Credit hours:	6 hours
2. Level/year at which this course is offered:	8 th level / 4 th year
3. Dates and times allocation of field experience activities.	• Number of weeks: 16 weeks • Number of days: 80 days (5 days a week) • Number of hours: 480 hours (6 hours a day)
4. Pre-requisites to join field experience (if any):	Completing 120 credit hours.

B. Learning Outcomes, and Training and Assessment Methods

1. Field Experience Learning Outcomes

CLOs		Aligned Program PLOs
1	Knowledge and Understanding	
1.1	Describe the work environment and practices related to key insurance operations.	K1, K2
1.2	Recognize risk management policies and procedures applied in workplace.	K1, K3
2	Skills:	
2.1	Evaluate practices applied in the training entity according to scientific standards.	S1, S2
2.2	Use scientific research methodologies to develop recommendations and solutions to improve business performance.	S3, S4
3	Values:	
3.1	Work effectively with individuals and groups and show long-life learning attitude.	V1
3.2	Commitment to professional and ethical conduct.	V2
3.3	Demonstrate effective oral and written communication.	V3

2. Alignment of Learning Outcomes with Training Activities and Assessment Methods

Code	Learning Outcomes	Training Methods/Activities	Assessment Methods
1.0	Knowledge and Understanding		
1.1	Describe the work environment and practices related to key insurance operations.	Hands-on experience Job shadowing	Reports
1.2	Recognize risk management policies and procedures applied in workplace.	Hands-on experience Job shadowing	Reports
2.0	Skills		
2.1	Evaluate practices applied in the training entity according to scientific standards.	Hands-on experience Job shadowing	Reports Oral presentation
2.2	Use scientific research methodologies to develop recommendations and solutions to improve business performance.	Workshops Hands-on experience Job shadowing	Reports Oral presentation
3.0	Values		
3.1	Work effectively with individuals and groups and show long-life learning attitude.	Workshops Hands-on experience Job shadowing	Reports Employer evaluation

Code	Learning Outcomes	Training Methods/Activities	Assessment Methods
3.2	Commitment to professional and ethical conduct.	Workshops Hands-on experience Job shadowing	Reports Employer evaluation
3.3	Demonstrate effective oral and written communication.	Workshop English course	English exam Oral presentation Reports

3. Field Experience Learning Outcomes Assessment

a. Students Assessment Timetable

#	Assessment task*	Assessment timing (Week)	Percentage of Total Assessment Score
1	Progress reports.	4, 8, 12	15%
2	Final report.	16	30%
3	Oral presentation.	16	20%
4	Employer evaluation.	During Semester	25%
5	English courses.	During Semester	10%

*Assessment task (i.e., Practical test, oral test, presentation, group project, essay, etc.)

b. Assessment Responsibilities

#	Category	Assessment Responsibility
1	Teaching Staff	• Progress Reports • Final report • Oral Presentation • English Courses
2	Field Supervisor	• Employer evaluation
3	Others (specify)	•

C. Field Experience Administration

1. Field Experience Locations

a. Field Experience Locations Requirements

Suggested Field Experience Locations	General Requirements*	Special Requirements**
Insurance companies	• A PC with internet connection. • A user account within the organization intranet to allow students to work on information systems in use. • Allow students to attend a variety of training courses and participate to internal and external events to develop knowledge and skills.	•
General Organization for Social Insurance (GOSI)		
Public Pension Agency		
Hospitals (health insurance)		
Other financial, commercial and services organizations.		

*Ex: provides information technology ,equipment ,laboratories ,halls ,housing ,learning sources ,clinics etc.

**Ex: Criteria of the training institution or related to the specialization, such as: safety standards, dealing with patients in medical specialties, etc.

b. Decision-making procedures for identifying appropriate locations for field experience

- Searching for potential field experience opportunities based on the above requirements.
- A contract is signed with the chosen training organizations, which includes terms and conditions for the management of risk and responsibility of all parties.
- Encourage the training organization to involve student in real work related to their domain and knowledge and skills.
- In case of unavailability, students can suggest a field experience site with minimal requirements.

2. Supervisory Staff

a. Selection of Supervisory Staff

Selection Items	Field Supervisor	Teaching Staff
Qualifications	• Msc • Bachelor with professional certification or respected experience	• Ph.D
Selection Criteria	•	•

b. Qualification and Training of Supervisory Staff

(Including the procedures and activities used to qualify and train the supervisory staff on supervising operations, implementing training activities, the follow-up and evaluation of students, etc.)

Cooperative Training Unit arranges an orientation workshop every semester for the Academic Supervisors for the cooperative training program. The workshop provides Academic supervisors the opportunity to understand the importance of frequent communication between them and their students. In addition, they will be handed all information and documents they will need during the training period, including this program manual and the forms which they will be using. The program plan structure is explained in each workshop and famous student questions and concerns are addressed.

3. Responsibilities

a. Field Experience Flowchart for Responsibility

including units, departments, and committees responsible for field experience, as evidenced by the relations between them.

There are four entities which perform an important role, and have a major responsibility, in the development and successful completion of the cooperative training program. These are:

- Cooperative Training Unit within the college.
- Training Organizations.
- Academic Supervisors.
- Academic Departments.

weeks	Processes and Activities	Responsibilities
8 weeks before coop starts	- Registration in the cooperative training program. - Provide Students with coop letters. - Approval by training provider.	- Student. - Cooperative Training Unit. - Training organization
1 st Week of Semester	- Follow up and approve the lists of eligible students for the cooperative training program. - Attend orientation seminar.	- Cooperative Training Unit. - Academic Departments. - Students.
1 st week of cooperative training	- Start cooperative training. - Fill contact forms. - Submit training plan. - Review training plan.	- Training organization - Field supervisor. - Student. - Academic supervisor.
4 th Week	- Submission of first progress report. - Review of first progress report.	- Student. - Academic supervisor.
8 th Week	- Submission of second progress report. - Review of first progress report.	- Student. - Academic supervisor.
12 th Week	- Submission of third progress report. - Review of first progress report.	- Student. - Academic supervisor.
16 th Week	- Submitting cooperative training final report. - Cooperative training oral presentation. - Submission of trainee evaluation form. - Grading students' reports and presentation.	- Student. - Field supervisor. - Academic supervisor.

b. Distribution of Responsibilities for Field Experience Activities

Activity	Department or College	Teaching Staff	Student	Training Organization	Field Supervisor
Selection of a field experience site	✓				
Selection of supervisory staff	✓				
Provision of the required equipment			✓	✓	
Provision of learning resources	✓			✓	
Ensuring the safety of the site	✓			✓	
Commuting to and from the field experience site		✓	✓		
Provision of support and guidance	✓	✓		✓	✓
Implementation of training activities (duties, reports, projects,)	✓	✓	✓		✓

Activity	Department or College	Teaching Staff	Student	Training Organization	Field Supervisor
Follow up on student training activities		✓			✓
Adjusting attendance and leave		✓		✓	✓
Assessment of learning outcomes	✓	✓			
Evaluating the quality of field experience			✓	✓	
Others (specify)					

4. Field Experience Implementation

a. Supervision and Follow-up Mechanism

- Complete and submit academic supervisor contact form and training schedule from field supervisor.
- Communicate with the supervisor in the training organization regarding the duties assigned to students, and to provide some opportunities for applying their knowledge and skills.
- Arrange monthly meetings with student to discuss the progress of the student's training.
- Communicate with the field supervisor to discuss trainee's progress.
- The training organization will assess students regarding to several aspects related to the training such as professional behavior, professional relations, professional knowledge and performance and the initiative.
- Grade the student's final report and allocate the student's final grade in the system.

b. Student Support and Guidance Activities

- Arrange with students the filing of all the documents and records.
- Support students in writing their cooperative training final report in professional format and preparing for oral presentation.
- Monitor students during training period to assure the smooth running of the training program

5. Safety and Risk Management

Potential Risks	Safety Actions	Risk Management Procedures
IS and IT risks	Brochure Distribution	A special brochure will be available for students about safety and risk management related to IS and IT.
Intellectual properties and information confidentiality	Awareness lecture	Students will be informed about the importance of intellectual properties and information confidentiality as well as general directives to protect organization data and systems.

Ethical risks	Awareness lecture	Students are encouraged to work ethically to preserve both university and organization reputation.
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G. Training Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
- Satisfaction level on KFU graduates. - Assessment of KFU graduates directly after being employed. - Improvement of KFU graduates' skills during employment.	Training Organization	Indirect Assessment
Effectiveness of the field experience program in developing students' skills.	Students	Indirect Assessment

Evaluation areas (e.g., Effectiveness of Training and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Supervisory Staff, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

E. Specification Approval Data

Council / Committee	Quantitative Methods Department Council
Reference No.	Third council meeting for the academic year 1441/1442 H.
Date	Thursday 28/2/1442 H. (15 th of October 2020)



Course Specifications

Course Title:	Special Topics in Insurance
Course Code:	QM 0676-402
Program:	Risk and Insurance
Department:	Quantitative Methods
College:	School of Business
Institution:	King Faisal University

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F. Learning Resources and Facilities	5
1. Learning Resources	5
2. Facilities Required	5
G. Course Quality Evaluation	6
H. Specification Approval Data	Error! Bookmark not defined.

A. Course Identification

1. Credit hours: 3 hours	
2. Course type	
a. University ☐ College ☐ Department ☒ Others ☐	
b. Required ☒ Elective ☐	
3. Level/year at which this course is offered: Level 7 / 4 th year	
4. Pre-requisites for this course (if any):	
• Life Insurance - QM 0676-206 • General Insurance - QM 0676-207	
5. Co-requisites for this course (if any):	
None	

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	45	100%
2	Blended		
3	E-learning		
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	45
2	Laboratory/Studio	
3	Tutorial	
4	Others (specify)	
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description This course introduces selected topics in risk and insurance and some special insurance coverages that has a different nature compared to most general or typical insurance types.
2. Course Main Objective The main purpose of this course is to highlight some modern and specialized topics in risk management and insurance.

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	Knowledge and Understanding	
1.1	Recall the basic characteristics and coverage conditions for some special types of insurance.	K2
1.2	Outline the application of some specialized topics in insurance and recent advances in insurance and risk management.	K2

CLOs		Aligned PLOs
2	Skills :	
2.1	Differentiate the conditions and exceptions of insurance coverage in a variety of typical special-type insurance policies.	S1
2.2	Determine the insured's eligibility for indemnity and calculate indemnity for special insurance policies in different situations.	S1, S2
2.3	Evaluate the application of some special-type insurance coverages in Saudi Arabia.	S1, S2
3	Values:	
3.1	Show teamwork skills and responsibility for self-learning and commitment.	V1, V2

C. Course Content

No	List of Topics	Contact Hours
1	Engineering insurance	12
2	Credit insurance	6
3	Micro insurance	9
4	Agricultural insurance	9
5	Recent advances in risk and insurance	9
Total		45

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
1.1	Recall the basic characteristics and coverage conditions for some special types of insurance.	• Lectures • Case studies	• Examinations • Coursework assessments • Assignments
1.2	List some of the recent advances in insurance and risk management.		
2.0	Skills		
2.1	Differentiate the conditions and exceptions of insurance coverage in a variety of typical special-type insurance policies.	• Lectures • Case studies • Classwork	• Examinations • Coursework assessments • Assignments
2.2	Determine the insured's eligibility for indemnity and calculate indemnity for special insurance policies in different situations.		
2.3	Evaluate the application of some special-type insurance coverages in Saudi Arabia.		
3.0	Values		
3.1	Show teamwork skills and responsibility for self-learning and commitment.	Classwork	• Coursework assessments - Assignments

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	In-class participation	During Semester	5%
2	Assignments	During Semester	5%
3	Quizzes	During Semester	10%
4	Project	During Semester	10%
5	Mid Term Exam	8 th	30%
6	Final exam	16 th	40%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

- 3 weekly office hours.
- There is an academic advising unit in the college.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	• Brown R., Introduction to ratemaking and loss reserving for Property and casualty Insurance, ACTEX publications; 3rd edition, ISBN-10: 1566986117, 2007.
Essential References Materials	• Materials provided by course instructor.
Electronic Materials	• None
Other Learning Materials	• A group of software (general: MSWord – MSeExcel, course specific: by course instructor).

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	• Classrooms
Technology Resources (AV, data show, Smart Board, software, etc.)	• Data show • Smart board • PC/Laptop
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	• None

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course evaluation surveys (CES) (twice a year).	• Students	Direct
Students' evaluation surveys (SES & PES) (once a year).	• Students	Direct
Courses evaluation workshops (every semester).	• Head of department • Teaching staff	Direct / Indirect
Annual program report	• Program coordinator	Direct / Indirect
Course report (every semester)	• Course Instructor • Course coordinator	Direct / Indirect

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Quantitative Methods Department Council
Reference No.	Third council meeting for the academic year 1441/1442 H.
Date	Thursday 28/2/1442 H. (15 th of October 2020)



Course Specifications

Course Title:	Introduction to Actuarial Sciences
Course Code:	QM 0676-401
Program:	Risk and Insurance
Department:	Quantitative Methods
College:	School of Business
Institution:	King Faisal University

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2. Assessment Tasks for Students	5
E. Student Academic Counseling and Support	5
F. Learning Resources and Facilities	5
1. Learning Resources	5
2. Facilities Required	6
G. Course Quality Evaluation	6
H. Specification Approval Data	6



A. Course Identification

1. Credit hours: 3hours	
2. Course type	
a.	University ☐ College ☐ Department ☒ Others ☐
b.	Required ☒ Elective ☐
3. Level/year at which this course is offered: Level 7 / 4 th year	
4. Pre-requisites for this course (if any): Life Insurance (0676-206) Probability and Simulation for Insurance (0676-303)	
5. Co-requisites for this course (if any): None	

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	45	100%
2	Blended		
3	E-learning		
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	42
2	Laboratory/Studio	3
3	Tutorial	
4	Others (specify)	
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

The course introduces selected topics in actuarial science, which is a discipline that applies mathematical and statistical methods to assess risk in insurance, such as the construction of life tables, the estimation of specific and dependent mortality rates and risk modelling.

2. Course Main Objective

The main purpose of this course is to provide students with the necessary knowledge and tools which enable them to estimate mortality rates and risk exposure, understand how to model, analyze and measure risk and apply this to insurance.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding	
1.1	Define actuarial sciences and outline its use and applications in risk	K1, K3

	and insurance.	
1.2	Explain the concept of risk exposure, types of mortality rates, factors affecting mortality and sources of collecting mortality data.	K1, K3
1.3	Recall different types of risk models and measures and explain the concepts of ruin and insolvency.	K1, K3
2	Skills :	
2.1	Calculate, convert and interpret different types of mortality rates.	S2
2.2	Estimate risk exposure and mortality rates based upon vital statistics and census data.	S1, S2
2.3	Model total claims and calculate its expected value, variance and the probabilities of ruin for the insurer in different situations.	S1, S2
2.4	Use actuarial/statistical software to calculate mortality rates, construct mortality tables, calculate risk measures and estimate ruin probabilities.	S3, S4
3	Values:	
3.1	Show teamwork skills and responsibility for self-learning and commitment.	V1, V2

C. Course Content

No	List of Topics	Contact Hours
1	Concept, scope, and applications of actuarial sciences	3
2	Mortality rates	6
3	Classification of mortality tables and the process of its construction	3
4	Estimating risk exposure and mortality rates	9
5	Individual risk model	9
6	Collective risk model	6
7	Ruin theory	6
8	Risk measures and insurance premiums	3
Total		45

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
1.1	Define actuarial sciences and outline its use and applications in risk and insurance.	• Lectures	• Examinations • Coursework assessments
1.2	Explain the concept of risk exposure, types of mortality rates, factors affecting mortality and sources of collecting mortality data.		
1.3	Recall different types of risk models and measures and explain the concepts of ruin and insolvency.		
2.0	Skills		

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
2.1	Calculate, convert and interpret different types of mortality rates.	• Lectures • Classwork	• Examinations • Coursework assessments • Assignments
2.2	Estimate risk exposure and mortality rates based upon vital statistics and census data.	• Lectures • Classwork	
2.3	Model total claims and calculate its expected value, variance and the probabilities of ruin for the insurer in different situations.	• Lectures • Case studies • Classwork	
2.4	Use actuarial/statistical software to calculate mortality rates, construct mortality tables, calculate risk measures and estimate ruin probabilities.	• Lab tutorials • Case studies • Classwork	
3.0	Values		
3.1	Show teamwork skills and responsibility for self-learning and commitment.	• Classwork	• Coursework assessments • Assignments

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	In-class participation	During Semester	5%
2	Assignments, reports and presentations	During Semester	15%
3	Quizzes	During Semester	10%
4	Mid Term Exam	8 th	30%
5	Final exam	16 th	40%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice:

- 3 weekly office hours.
- There is an academic advising unit in the college.

F. Learning Resources and Facilities

I. Learning Resources

Required Textbooks	• Benjamin B. and Pollard J. H, The Analysis of Mortality and other Actuarial Statistics, Cambridge University Press, 1980. • Rob Kaas, M. Goovaerts and J. Dhaene, "Modern actuarial risk theory", Springer, 2009.
Essential References Materials	• David C. M. Dickson, Mary R. Hardy and Howard R. Waters, Actuarial Mathematics for Life Contingent Risks, Cambridge University Press, 2009. • Dale S. Borowiak, Arnold F. Shapiro, Financial and Actuarial Statistics: An Introduction, Second Edition, Chapman and

	Hall/CRC, 2013. • Handouts and other material provided or recommended by the course instructor.
Electronic Materials	• http://SOA.org/ • http://www.actuaries.org.uk/ • http://www.actuarialpost.co.uk/software/
Other Learning Materials	• A group of computer programs/applications: R - Actuarial software – Excel - Word - Power point.

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	• Classrooms • Computer labs
Technology Resources (AV, data show, Smart Board, software, etc.)	• Data show • Smart board • PC/Laptop
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	• None

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course evaluation surveys (CES) (twice a year).	• Students	Direct
Students' evaluation surveys (SES & PES) (once a year).	• Students	Direct
Courses evaluation workshops (every semester).	• Head of department • Teaching staff	Direct / Indirect
Annual program report	• Program coordinator	Direct / Indirect
Course report (every semester)	• Course Instructor • Course coordinator	Direct / Indirect

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Quantitative Methods Department Council
Reference No.	Third council meeting for the academic year 1441/1442 H.
Date	Thursday 28/2/1442 H. (15 th of October 2020)



Course Specifications

Course Title:	Operations of Insurance Companies
Course Code:	QM 0676-403
Program:	Risk and Insurance
Department:	Quantitative Methods
College:	School of Business
Institution:	King Faisal University

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F. Learning Resources and Facilities	5
1. Learning Resources	5
2. Facilities Required.....	5
G. Course Quality Evaluation	6
H. Specification Approval Data	Error! Bookmark not defined.

A. Course Identification

1. Credit hours: 3 hours	
2. Course type	
a.	University ☐ College ☐ Department ☒ Others ☐
b.	Required ☒ Elective ☐
3. Level/year at which this course is offered: Level 7 / 4 th year	
4. Pre-requisites for this course (if any): • Reinsurance - QM 0676-305	
5. Co-requisites for this course (if any): None	

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	45	100%
2	Blended		
3	E-learning		
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	45
2	Laboratory/Studio	
3	Tutorial	
4	Others (specify)	
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

This course introduces the basic technical operations of insurance firms and how they operate. It also gives an insight into external factors affecting insurance operations.

2. Course Main Objective

The main objective of this course is to provide students with the required knowledge about the structure of insurance firms and how they operate.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding	
1.1	List the basic operations of an insurance company.	K1, K2
1.2	Recognize the basics of insurance marketing and different types of insurance marketing schemes.	K2
1.3	Memorize the steps of the processes of underwriting and claim settlement.	K1, K2

CLOs		Aligned PLOs
2	Skills :	
2.1	Assess the impact of some external factors on insurance company operations.	S1
2.2	Estimate the insurance rate for a given applicant based upon a given rating system.	S2
2.3	Compare claim settlement procedures in various insurance types.	S1
3	Values:	
3.1	Show teamwork skills and responsibility for self-learning and commitment.	V1, V2

C. Course Content

No	List of Topics	Contact Hours
1	Introduction to insurance companies operations	1.5
2	Marketing insurance products	12
3	Underwriting in insurance firms	12
4	Rate-making of insurance products	12
5	Claim settlement in insurance firms	7.5
Total		45

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
1.1	List the basic operations of an insurance company.	• Lectures • Case studies	• Examinations • Coursework assessments • Assignments
1.2	Recognize different types of insurance marketing schemes.		
1.3	Memorize the steps of the processes of underwriting and claim settlement.		
2.0	Skills		
2.1	Explain the impact of some external factors on insurance company operations.	• Lectures • Case studies • Classwork	• Examinations • Coursework assessments • Assignments
2.2	Estimate the insurance rate for a given applicant based upon a given rating system.		
3.0	Values		
3.1	Show teamwork skills and responsibility for self-learning and commitment.	• Classwork	• Coursework assessments • Assignments

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Assignments, essays, reports and presentations	During Semester	20
2	Quizzes	4 th	10
3	Mid Term Exam	7 th	30
4	Final exam	16 th	40

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

- 3 weekly office hours.
- There is an academic advising unit in the college

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	Myhr, A. E.; and Markham, J. J., Insurance Operations: Regulation and Statutory Accounting, Second edition, American Institute for Chartered Property Casualty Underwriters, 2004.
Essential References Materials	• Handouts and other material provided or recommended by the course instructor. • Mohamed Salah al-Din Sidqi and others, "General Insurance, Dar Elshrooq, Cairo, 2006.
Electronic Materials	None
Other Learning Materials	A group of computer programs/applications (R - Actuarial software - Excel).

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	• Classrooms
Technology Resources (AV, data show, Smart Board, software, etc.)	• Data show • Smart board • PC/Laptop
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	• None

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course evaluation surveys (CES) (twice a year).	• Students	• Direct
Students' evaluation surveys (SES & PES) (once a year).	• Students	• Direct
Courses evaluation workshops (every semester).	• Head of department • Teaching staff	• Direct / Indirect
Annual program report	• Program coordinator	• Direct / Indirect
Course report (every semester)	• Course Instructors • Course coordinator	• Direct / Indirect

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Quantitative Methods Department Council
Reference No.	Third council meeting for the academic year 1441/1442 H.
Date	Thursday 28/2/1442 H. (15 th of October 2020)



Course Specifications

Course Title:	Social Insurance	
Course Code:	QM 0676-302	
Program:	Risk and Insurance	
Department:	Quantitative Methods	
College:	School of Business	
Institution:	King Faisal University	

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H. Specification Approval Data	Error! Bookmark not defined.

A. Course Identification

1. Credit hours: 3 Hours	
2. Course type	
a. University ☐ College ☐ Department ☒ Others ☐	
b. Required ☒ Elective ☐	
3. Level/year at which this course is offered: Level 5 / 3 rd year	
4. Pre-requisites for this course (if any): Fundamentals of Risk and Insurance - QM 0676-203	
5. Co-requisites for this course (if any): None	

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	45	100%
2	Blended		
3	E-learning		
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	45
2	Laboratory/Studio	
3	Tutorial	
4	Others (specify)	
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

This course introduces the fundamentals of social insurance systems and its financing schemes as well as the social security system and regulations in Saudi Arabia.

2. Course Main Objective

The main purpose of this course is to analyze social insurance system including contributions and benefits for different personal needs and their application in Saudi Arabia.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding	
1.1	Define the types and characteristics of social insurance.	K1, K2
1.2	Recognize different schemes of financing social insurance systems.	K1
1.3	Outline the basic structure and characteristics of the social insurance system in the Kingdom of Saudi Arabia.	K1, K2

CLOs		Aligned PLOs
2	Skills :	
2.1	Compare between social security and social insurance.	S1
2.2	Calculate the benefits of different types of social insurance in Saudi Arabia.	S2
3	Values:	
3.1	Show teamwork skills and responsibility for self-learning and commitment.	V1, V2
3.2	Assess the social insurance system in Saudi Arabia.	V3

C. Course Content

No	List of Topics	Contact Hours
1	Social insurance: definition, emergence and evolution.	6
2	Characteristics of social insurance.	3
3	Social insurance types and systems of financing.	12
4	Social insurance system and regulations in Saudi Arabia.	6
5	Contributions and benefits of social insurance system in Saudi Arabia.	15
6	Special social insurance coverages/systems in Saudi Arabia.	3
Total		45

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
1.1	Define the types and characteristics of social insurance.	• Lectures • Case studies • Classwork	• Examinations • Coursework assessments - Assignments
1.2	Recognize different schemes of financing social insurance systems.		
1.3	Outline the basic structure and characteristics of the social insurance system in the Kingdom of Saudi Arabia.		
2.0	Skills		
2.1	Compare between social security and social insurance.	• Lectures • Case studies • Classwork	• Examinations • Coursework assessments • Assignments
2.2	Calculate the benefits of different types of social insurance in Saudi Arabia.		
3.0	Values		
3.1	Show teamwork skills and responsibility for self-learning and commitment.	• Classwork	• Coursework assessments
3.2	Assess the social insurance system in Saudi Arabia.	• Case studies • Classwork	• Examinations • Coursework assessments • Assignments

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Assignments, essays, reports and presentations	During Semester	10%
2	Quizzes	4 th / 10 th	10%
3	Mid Term Exam	8 th	30%
4	Project	During Semester	10%
5	Final exam	16 th	40%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

- 3 weekly office hours.
- There is an academic advising unit in the college.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	• Sami NajibMalk, Social insurance, Dar el Nahda Alarbia, 2006.
Essential References Materials	• Social security system in the Kingdom of Saudi Arabia
Electronic Materials	• General Organization for Social Insurance in Saudi Arabia (GOSI). www.gosi.gov.sa
Other Learning Materials	• A group of programs desktop (Word - Excel - Power point).

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	• Classrooms
Technology Resources (AV, data show, Smart Board, software, etc.)	• Data show • Smart board • PC/Laptop
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	• None

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course evaluation surveys (CES) (twice a year).	• Students	Direct
Students' evaluation surveys (SES & PES) (once a year).	• Students	Direct
Courses evaluation workshops (every semester).	• Head of department • Teaching staff	Direct / Indirect
Annual program report	• Program coordinator	Direct / Indirect
Course report (every semester)	• Course Instructor • Course coordinator	Direct / Indirect

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Quantitative Methods Department Council
Reference No.	Third council meeting for the academic year 1441/1442 H.
Date	Thursday 28/2/1442 H. (15 th of October 2020)



Course Specifications

Course Title:	Life Insurance
Course Code:	QM 0676-206
Program:	Risk and Insurance
Department:	Quantitative Methods
College:	School of Business
Institution:	King Faisal University

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1. Learning Resources	5
2. Facilities Required	6
G. Course Quality Evaluation	6
H. Specification Approval Data	Error! Bookmark not defined.

A. Course Identification

1. Credit hours: 3hours	
2. Course type	
a.	University ☐ College ☐ Department ☒ Others ☐
b.	Required ☒ Elective ☐
3. Level/year at which this course is offered: Level 4 / 2 nd year	
4. Pre-requisites for this course (if any): Fundamentals of Risk and Insurance - QM 0676-203	
5. Co-requisites for this course (if any): None	

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	45	100%
2	Blended		
3	E-learning		
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	45
2	Laboratory/Studio	
3	Tutorial	
4	Others (specify)	
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

This course covers a range of topics about cooperative life insurance starting from theory and basics ending with calculating contributions and surplus distribution.

2. Course Main Objective

The main objective of this course is to introduce cooperative life insurance concepts and application in Saudi insurance sector.

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	Knowledge and Understanding	
1.1	Recall basic concepts of life insurance.	K1
1.2	Outline the types of life insurance policies and the coverages.	K2
1.3	Recognize different schemes of surplus distribution on policyholders.	K2

CLOs		Aligned PLOs
2	Skills :	
2.1	Compare cooperative life insurance coverages in Saudi Arabia.	S1
2.2	Calculate policy share of surplus for different life insurance coverages.	S2
2.3	Estimate the future net income of an insured and the economic value of a life using both the expected value approach.	S2
3	Values:	
3.1	Show teamwork skills and responsibility for self-learning and commitment.	V1, V2
3.2	Assess the sufficiency of insurance coverage taking into consideration future needs of the policyholder.	V3

C. Course Content

No	List of Topics	Contact Hours
1	Introduction to life insurance	12
2	Life insurance policies	18
3	Life insurance in Saudi Arabia	6
4	Surplus calculation and distribution in takaful life insurance	6
Total		45

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
1.1	Recall basic concepts of life insurance and the difference between conventional and cooperative life insurance.	• Lectures • Case studies	• Examinations • Coursework assessments • Assignments
1.2	List the types of life insurance coverages (policies).		
1.3	Recognize different schemes of surplus distribution on policyholders.		
2.0	Skills		
2.1	Compare cooperative life insurance coverages in Saudi Arabia.	• Lectures • Case studies • Classwork	• Examinations • Coursework assessments • Assignments
2.2	Calculate contributions for different types of cooperate life insurance coverages.		
2.3	Calculate policy share of surplus for different life insurance coverages.		
3.0	Values		
3.1	Show teamwork skills and responsibility for self-learning and commitment.	Classwork	• Coursework assessments - Assignments

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
3.2	Assess the sufficiency of insurance coverage taking into consideration future needs of the policyholder.	• Lectures • Case studies • Classwork	• Examinations • Coursework assessments • Assignments

2. Assessment Tasks for Students

#	Assessment task ^a	Week Due	Percentage of Total Assessment Score
1	In-class participation	During Semester	5%
2	Assignments, reports and presentations	During Semester	20%
3	Quizzes	3 th	5%
4	Mid Term Exam	8 th	30%
5	Final exam	16 th	40%

^aAssessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

- 3 weekly office hours.
- There is an academic advising unit in the college.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	• Kenneth B. & Harold S., Life and health insurance, 13th edition, Prentice Hall, 1999. • Alsaid Abdulmuttalib Abdo, Life Insurance, Dar Alkitab Aljamei, Cairo, 1998.
Essential References Materials	• Saad Al Sayyed Abdul Razzaq, "Technical Aspects Life Insurance", Cairo University, 1999.
Electronic Materials	• None
Other Learning Materials	• A group of software (general: MSWord – MS Excel, course specific: by course instructor).

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	• Classrooms
Technology Resources (AV, data show, Smart Board, software, etc.)	• Data show • Smart board • PC/Laptop
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	• None

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course evaluation surveys (CES) (twice a year).	• Students	Direct
Students' evaluation surveys (SES & PES) (once a year).	• Students	Direct
Courses evaluation workshops (every semester).	• Head of department • Teaching staff	Direct / Indirect
Annual program report	• Program coordinator	Direct / Indirect
Course report (every semester)	• Course Instructor • Course coordinator	Direct / Indirect

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Quantitative Methods Department Council
Reference No.	Third council meeting for the academic year 1441/1442 H.
Date	Thursday 28/2/1442 H. (15 th of October 2020)



Course Specifications

Course Title:	Fundamentals of Risk and Insurance
Course Code:	QM-0676203
Program:	Risk and Insurance
Department:	Quantitative Methods
College:	School of Business
Institution:	King Faisal University

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F. Learning Resources and Facilities	5
1. Learning Resources	5
2. Facilities Required	5
G. Course Quality Evaluation	5
H. Specification Approval Data	6

A. Course Identification

1. Credit hours:	3 Hours
2. Course type	
a.	University ☐ College ☐ Department ☒ Others ☐
b.	Required ☒ Elective ☐
3. Level/year at which this course is offered:	Level 4 / 2 nd year
4. Pre-requisites for this course (if any):	Introduction to Statistics - QM. 0676-102
5. Co-requisites for this course (if any):	None

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom ☒	45	100%
2	Blended ☐		
3	E-learning ☐		
4	Correspondence ☐		
5	Other ☐		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	45
2	Laboratory/Studio	
3	Tutorial	
4	Others (specify)	
	Total	45

*The length of time that a learner takes to complete learning activities that lead to achievement of course learning outcomes, such as study time, homework assignments, projects, preparing presentations, library times

B. Course Objectives and Learning Outcomes

1. Course Description

This course introduces the basics of risk and insurance. It enables the students to identify and analyze risks that are inherent in the operation of profit and not-for-profit institutions, besides providing them with the essential basic knowledge about insurance as one of the major risk management policies.

2. Course Main Objective

The main purpose of this course is introducing the fundamentals of risk management and insurance and the framework of insurance industry in Saudi Arabia.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding:	
1.1	Illustrate the basic concepts of risk and risk management process.	K1
1.2	Identify main types of insurance and the difference between takaful and conventional insurance.	K2
1.3	Explain legal and technical principles for insurance.	K1
1.4	Recognize the nature and structure of Saudi insurance market.	K1
2	Skills:	
2.1	Determine the appropriate risk management policy in different situations.	S1
2.2	Calculate risk measures and risk exposure using quantitative analysis.	S1
2.3	Apply legal principles of insurance, including calculating indemnity and coinsurance shares.	S1
3	Values:	
3.1	Show teamwork skills and responsibility for self-learning and commitment.	V1, V2

C. Course Content

No	List of Topics	Contact Hours
1	Introduction to risk.	6
2	Risk management and measurement.	12
3	Introduction to insurance.	6
4	Technical and legal principles of insurance.	15
5	Insurance in Saudi Arabia.	6
Total		45

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge		
1.1	Illustrate the basic concepts of risk and risk management process.	- Lectures - Case studies	- Examinations - Coursework assessments
1.2	Identify main types of insurance and the difference between takaful and conventional insurance.	Lectures	
1.3	Explain legal and technical principles for insurance.	Lectures	
1.4	Recognize the nature and structure of Saudi insurance market.	Lectures	

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
2.0	Skills		
2.1	Determine the appropriate risk management policy in different situations.	• Lectures • Case studies • Classwork	• Examinations • Coursework assessments • Assignments
2.2	Calculate risk measures and risk exposure using quantitative analysis.		
2.3	Apply legal principles of insurance, including calculating indemnity and coinsurance shares.		
3.0	Competence		
3.1	Show teamwork skills and responsibility for self-learning and commitment.	• Classwork • Projects	• Coursework assessments • Assignments • Reports
3.2	Assess the determinants and limitations of insurance demand in the Saudi insurance market.	• Case studies • Classwork • Projects	

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	In-class participation, assignments, and presentations	During Semester	15%
2	Quizzes	During Semester	15%
3	Mid Term	8 th	30%
4	Final exam	16 th	40%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.).

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice:

- 3 weekly office hours.
- There is an academic advising unit in the college.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	• George E. Rejda, Principals of risk management and insurance, Addison Wesley, 2007. • Emmett. & Therese Vaughan, Fundamentals of Risk and Insurance, Wiley, 2007.
Essential References Materials	• Osman M. A., et al., Risk Management and Insurance: Concepts and Applications", Center for Research and Intercommunication Knowledge, Riyadh, KSA, 2020. • "Insurance Foundations", The Financial Academy, Kingdom of Saudi Arabia, August 2019.
Electronic Materials	• A group of computer programs/applications (Word - Excel - Power point).
Other Learning Materials	• None

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	• Classrooms
Technology Resources (AV, data show, Smart Board, software, etc.)	• Data show • Smart board • PC/Laptop
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	• None

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course evaluation surveys (CES) (twice a year).	• Students	Direct
Students' evaluation surveys (SES & PES) (once a year).	• Students	Direct
Courses evaluation workshops (every semester).	• Head of department • Teaching staff	Direct / Indirect
Annual program report	• Program coordinator	Direct / Indirect
Course report (every semester)	• Course Instructor • Course coordinator	Direct / Indirect

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Quantitative Methods Department Council
Reference No.	Third council meeting for the academic year 1441/1442 H.
Date	Thursday 28/2/1442 H. (15 th of October 2020)



Course Specifications

Course Title:	Business Statistics
Course Code:	QM 0676-201
Program:	Risk and Insurance
Department:	Quantitative Methods
College:	School of Business
Institution:	King Faisal University

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F. Learning Resources and Facilities	5
1.Learning Resources	5
2. Facilities Required	6
G. Course Quality Evaluation	6
H. Specification Approval Data	6

A. Course Identification

1. Credit hours:	3 hours
2. Course type	
a. University ☐ College ☒ Department ☐ Others ☐	
b. Required ☒ Elective ☐	
3. Level/year at which this course is offered:	Level 3 / 2 nd year
4. Pre-requisites for this course (if any):	Introduction to Statistics - QM 0676-102
5. Co-requisites for this course (if any):	None

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	45	100%
2	Blended		
3	E-learning		
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	36
2	Laboratory/Studio	9
3	Tutorial	
4	Others (specify)	
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

This course introduces selected fundamentals of business statistics, which include estimation, hypothesis testing, regression and correlation analysis, analysis of variance, nonparametric tests and categorical data analysis.

2. Course Main Objective

This course aims to provide students with some basic statistical knowledge and tools needed for managers to make decisions. The course focuses on formulating problems, analyzing data, and decision-making process. Particular emphasis will be given to the selection criteria of appropriate techniques and how to use Excel to conduct statistical analyses.

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	Knowledge and Understanding:	
1.1	Outline the steps of statistical hypothesis testing	K3
1.2	Explain how to estimate population parameters using point and interval estimates	K3

CLOs		Aligned PLOs
1.3	Recall basic tools and functions in Excel for data analysis.	K3
2	Skills:	
2.1	Conduct and interpret a variety of hypothesis tests to aid decision making in a business context	S3, S4
2.2	Compute and interpret the results of multiple regression and use it for forecasting.	S3
2.3	Perform non-parametric tests for small samples and categorical data.	S3, S4
2.4	Use Excel to analyze the data using the appropriate techniques.	S4
3	Values:	
3.1	Show teamwork skills and responsibility for self-learning and commitment.	V1, V2
3.2	Interpret software output and write statistical reports.	V3

C. Course Content

No	List of Topics	Contact Hours
1	Multiple linear regression	6
2	Point and interval estimation for population mean and proportion	4.5
3	Hypothesis testing about population mean and proportion	4.5
4	Analysis of variance: One-way ANOVA	6
5	Analysis of variance: Two-way ANOVA	6
6	Non-parametric tests	7.5
7	Data analysis using Excel	9
Total		45

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Assessment Methods			
Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
1.1	Outline the steps of statistical hypothesis testing	• Lectures	• Examinations • Coursework assessments
1.2	Explain how to estimate population parameters using point and interval estimates		
1.3	Recall basic tools and functions in Excel for data analysis.		
2.0	Skills		
2.1	Conduct and interpret a variety of hypothesis tests to aid decision making in a business context	• Lectures	• Examinations • Coursework assessments • Assignments
2.2	Compute and interpret the results of multiple regression and use it for forecasting.	• Case studies • Classwork	
2.3	Perform non-parametric tests for small		

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
	samples and categorical data.		
2.4	Use Excel to analyze the data using the appropriate techniques.		
3.0	Values		
3.1	Show teamwork skills and responsibility for self-learning and commitment.	• Classwork	• Coursework assessments • Assignments
3.2	Interpret software output and write statistical reports.	• Case studies • Classwork • Lab tutorials	• Examinations • Coursework assessments • Assignments

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	In-class participation	During Semester	5%
2	Assignments, reports and presentations	During Semester	15%
3	Quizzes	During Semester	10%
4	Mid Term Exam	8 th	30%
5	Final exam	16 th	40%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice:

- 3 weekly office hours.
- There is an academic advising unit in the college.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	• Douglas Lind, William Marchal and Samuel Wathen, Statistical Techniques in Business and Economics, The McGraw-hill/Irwin Series in Operations and Decision Sciences, 2017. • Gerald Keller, Statistics for Management and Economics, 10th edition, 2015.
Essential References Materials	• Saad Alkahtani, Applied Statistics, Jarir Bookstore, 2015.
Electronic Materials	• Recorded lectures.
Other Learning Materials	• A group of computer programs/applications (Word - Excel - Power point - SPSS).

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	• Classrooms • Blackboard system
Technology Resources (AV, data show, Smart Board, software, etc.)	• Data show • Smart board • PC/Laptop
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	• None

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course evaluation surveys (CES) (twice a year).	• Students	Direct
Students' evaluation surveys (SES & PES) (once a year).	• Students	Direct
Courses evaluation workshops (every semester).	• Head of department • Teaching staff	Direct / Indirect
Annual program report	• Program coordinator	Direct / Indirect
Course report (every semester)	• Course Instructor • Course coordinator	Direct / Indirect

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Quantitative Methods Department Council
Reference No.	Third council meeting for the academic year 1441/1442 H.
Date	Thursday 28/2/1442 H. (15 th of October 2020)



Course Specifications

Course Title:	Introduction to Statistics
Course Code:	QM 0676-102
Program:	Risk and Insurance
Department:	Quantitative Methods
College:	School of Business
Institution:	King Faisal University



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A. Course Identification

1. Credit hours: 3hours	
2. Course type	
a.	University ☐ College ☒ Department ☐ Others ☐
b.	Required ☒ Elective ☐
3. Level/year at which this course is offered: Level 2 / 1 st year	
4. Pre-requisites for this course (if any): Fundamentals of Mathematics for Business - QM 0676-101	
5. Co-requisites for this course (if any): None	

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	45	100%
2	Blended		
3	E-learning		
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	36
2	Laboratory/Studio	9
3	Tutorial	
4	Others (specify)	
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

Introduction to statistics course is about studying data collection, presentation and summarization, interpretation using different statistical tools, probability and probability distributions, as well as index numbers.

2. Course Main Objective

The main objective of this course is to familiarize students with the use of different statistical tools to describe data and to introduce students to probability, probability distributions, and index numbers.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding	
1.1	List different types of data and methods of data collection.	K3
1.2	Identify different graphical tools and numerical measures of descriptive statistics.	K3
1.3	Recall different forms of correlation and the structure of linear regression equations.	K3
1.4	Memorize basic rules and types of probabilities, random variables	K1, K3

CLOs		Aligned PLOs
	and probability distributions.	
2	Skills:	
2.1	Calculate summary statistical measures for grouped and ungrouped data and create graphs to represent different types of data.	S3
2.2	Measure the correlation between two variables and predict the values of a variable based upon an estimated regression line.	S3
2.3	Calculate different types of probabilities and moments for discrete and continuous distributions.	S2
2.4	Calculate index numbers	S3
2.5	Use statistical packages to create graphs and calculate statistical measures.	S4
3	Values:	
3.1	Show teamwork skills and responsibility for self-learning and commitment.	V1, V2
3.2	Interpret software output and write statistical reports.	V3

C. Course Content

No	List of Topics	Contact Hours
1	Introduction to statistical science	3
2	Data collection, coding and presentation	3
3	Measures of location and dispersion	6
4	Measures of relative dispersion, skewness and kurtosis	3
5	Simple linear regression and correlation	6
6	Probability theory	3
7	Discrete random variables and probability distributions	4.5
8	Continuous random variables and probability distributions	4.5
9	Index numbers	3
10	Introducing data analysis package on Excel	9
Total		45

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
1.1	List different types of data and methods of data collection.	• Lectures	• Examination • Coursework assessments
1.2	Identify different graphical tools and numerical measures of descriptive statistics.		
1.3	Recall different forms of correlation and the structure of linear regression equations.		
1.4	Memorize basic rules and types of probabilities, random variables and probability distributions.		

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
2.0	Skills		
2.1	Calculate summary statistical measures for grouped and ungrouped data and create graphs to represent different types of data.	• Lectures • Case studies • Classwork	• Examinations • Coursework assessments • Assignments
2.2	Measure the correlation between two variables and predict the values of a variable based upon an estimated regression line.		
2.3	Calculate different types of probabilities and moments for discrete and continuous distributions.		
2.4	Calculate different index numbers		
2.5	Use statistical packages to create graphs and calculate statistical measures.		
3.0	Values		
3.1	Show teamwork skills and responsibility for self-learning and commitment.	• Classwork	• Coursework assessments • Assignments
3.2	Interpret software output and write statistical reports.	• Case studies • Classwork • Lab tutorials	• Examinations • Coursework assessments • Assignments

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	In-class participation	During Semester	5%
2	Assignments, reports and presentations	During Semester	15%
3	Quizzes	During Semester	10%
4	Mid Term Exam	8 th	30%
5	Final exam	16 th	40%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice:

- 3 weekly office hours.
- There is an academic advising unit in the college.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	• Douglas Lind, William Marchal and Samuel Wathen, Statistical Techniques in Business and Economics, The McGraw-hill/Irwin Series in Operations and Decision Sciences, 2017. • Gerald Keller, Statistics for Management and Economics, 10th edition, 2015.
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Essential References Materials	• Mohamed Sobhi Abu Saleh and Adnan Mohammed Awad, "Introduction to Statistics: Principles and analyzes using SPSS", Dar Almasira for publication and distribution, third edition, 2007. • Abdullah al-Najjar and Osama Hanafi, "Principles of Statistics for the Humanities with computer applications," IDC, second edition, 2013.
Electronic Materials	• Recorded lectures.
Other Learning Materials	• A group of computer programs/applications (Word - Excel - Power point - SPSS).

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	• Classrooms • Computer Labs
Technology Resources (AV, data show, Smart Board, software, etc.)	• LMS (Blackboard system) • Data show • Smart board • PC/Laptop
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	• None

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course evaluation surveys (CES) (twice a year).	• Students	Direct
Students' evaluation surveys (SES & PES) (once a year).	• Students	Direct
Courses evaluation workshops (every semester).	• Head of department • Teaching staff	Direct / Indirect
Annual program report	• Program coordinator	Direct / Indirect
Course report (every semester)	• Course Instructor • Course coordinator	Direct / Indirect

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Quantitative Methods Department Council
Reference No.	Third council meeting for the academic year 1441/1442 H.
Date	Thursday 28/2/1442 H. (15 th of October 2020)



Course Specifications

Course Title:	Computational Statistics
Course Code:	QM0676-205
Program:	Risk and Insurance
Department:	Quantitative Methods
College:	School of Business
Institution:	King Faisal University



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F. Learning Resources and Facilities.....	5
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2. Facilities Required	6
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A. Course Identification

1. Credit hours: 3 Hours	
2. Course type	
a.	University ☐ College ☐ Department ☒ Others ☐
b.	Required ☒ Elective ☐
3. Level/year at which this course is offered: Level 4/ 2 nd year	
4. Pre-requisites for this course (if any):	
Business Statistics 0606211	
5. Co-requisites for this course (if any):	
None	

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	45	100%
2	Blended		
3	E-learning		
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	18
2	Laboratory/Studio	27
3	Tutorial	
4	Others (specify)	
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

This course introduces Microsoft Excel and R statistical packages and their applications in various areas of risk and insurance.

2. Course Main Objective

The main purpose of this course is to provide students with the necessary knowledge and skills which enables them to use Excel and R in risk and insurance context.

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	Knowledge and Understanding	
1.1	Memorize Excel functions and add-ons used in the context of risk and insurance.	K3

CLOs		Aligned PLOs
1.2	Recall the steps of compiling R functions.	K3
1.3	Identify R packages and functions used in the context of risk and insurance.	K3
2	Skills :	
2.1	Use Excel built-in functions and add-ons to for modelling and analyzing risk and insurance data.	S4
2.2	Creating R functions to model risk and insurance data.	S4
2.3	Use R packages and functions to calculate probabilities, simulate distributions and forecast future claims in the fields of risk and insurance.	S4
3	Values:	
3.1	Show teamwork skills and responsibility for self-learning and commitment.	V1, V2
3.2	Interpret software outputs for risk and insurance data and write/present results' reports.	V3

C. Course Content

No	List of Topics	Contact Hours
1	Introduction to Microsoft Excel.	6
2	Applications of Excel in risk and insurance.	12
3	Introduction to R.	12
4	Applications of R in risk and insurance.	15
Total		45

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
1.1	Memorize Excel functions and add-ons used in the context of risk and insurance.	- Lectures - Lab tutorials	- Examinations - Coursework assessments
1.2	Recall the steps of compiling R functions.		
1.3	Identify R packages and functions used in the context of risk and insurance.		
2.0	Skills		
2.1	Use Excel built-in functions and add-ons to for modelling and analyzing risk and insurance data.	- Lectures - Case studies - Classwork - Lab tutorials	- Examinations - Coursework assessments - Assignments
2.2	Creating R functions to model risk and insurance data.		
2.3	Use R packages and functions to calculate probabilities, simulate distributions and forecast future		

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
	claims in the fields of risk and insurance.		
3.0	Values		
3.1	Show teamwork skills and responsibility for self-learning and commitment.	• Classwork • Projects	• Coursework assessments • Assignments
3.2	Interpret software outputs for risk and insurance data and write/present results' reports.	• Case studies • Lab tutorials • Projects	• Coursework assessments • Reports

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	In-class participation	During Semester	5%
2	Assignments, reports and presentations	During Semester	20%
3	Quizzes	During Semester	5%
4	Mid Term Exam	10 th	30%
5	Final exam	16 th	40%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

- 3 weekly office hours.
- There is an academic advising unit in the college.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	• Guerrero, Hector, Excel Data Analysis; Modeling and Simulation, Springer, 2019. • W. N. Venables, D. M. Smith and the R Core Team, An Introduction to R: A Programming Environment for Data Analysis and Graphics, CRAN 2019. • Crawley, Michael J., Statistics: An Introduction Using R, 2nd Edition, Wiley 2014.
Essential References Materials	• Handouts and other material provided or recommended by the course instructor.
Electronic Materials	• A group of computer programs/applications (R -Excel - Word - Power point).

Other Learning Materials	• None
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2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	• Classrooms
Technology Resources (AV, data show, Smart Board, software, etc.)	• Data show • Smart board • PC/Laptop
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	• None

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course evaluation surveys (CES) (twice a year).	• Students	Direct
Students' evaluation surveys (SES & PES) (once a year).	• Students	Direct
Courses evaluation workshops (every semester).	• Head of department • Teaching staff	Direct / Indirect
Annual program report	• Program coordinator	Direct / Indirect
Course report (every semester)	• Course Instructor • Course coordinator	Direct / Indirect

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Quantitative Methods Department Council
Reference No.	Meeting No. 2 – Academic year 1440/1441 H.
Date	Wednesday 25th of September 2019



Course Specifications

Course Title:	Statistical Analysis
Course Code:	QM 0606-104
Program:	Risk and Insurance
Department:	Quantitative Methods
College:	College of Business Administration
Institution:	King Faisal University



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A. Course Identification

1. Credit hours:			
2. Course type			
a.	University ☐	College ☒	Department ☐ Others ☐
b.	Required ☒	Elective ☐	
3. Level/year at which this course is offered: Level 2 / 1 st year			
4. Pre-requisites for this course (if any): Fundamentals of Mathematics and Statistics for Business - QM 0606-107			
5. Co-requisites for this course (if any): None			

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	45	100%
2	Blended		
3	E-learning		
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	45
2	Laboratory/Studio	
3	Tutorial	
4	Others (specify)	
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

Statistical Analysis course is about studying data collection, presentation, summarization, and interpretation using different statistical tools, as well as making inferences from data based upon sampling from a population.

2. Course Main Objective

The main objective of this course is to familiarize students with the use of different statistical tools to describe data and make useful inferences from it.

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	Knowledge and Understanding	
1.1	List different types of data and methods of data collection.	K3
1.2	Identify different graphical tools and numerical measures of descriptive statistics.	K3
1.3	Recall different forms of correlation and the structure of linear	K3

CLOs		Aligned PLOs
	regression equations.	
1.4	Memorize basic rules and types of probabilities, random variables and probability distributions.	K1, K3
1.5	Define the basic concepts of sampling, statistical estimation and statistical hypotheses testing.	K3
2	Skills :	
2.1	Calculate summary statistical measures for grouped and ungrouped data and create graphs to represent different types of data.	S3
2.2	Measure the correlation between two variables and predict the values of a variable based upon an estimated regression line.	S3
2.3	Calculate different types of probabilities and moments for discrete and continuous distributions.	S2
2.4	Estimate population parameters and test different hypotheses about them based upon sample data.	S3
2.5	Use statistical packages to create graphs and calculate statistical measures.	S4
2...	Calculate summary statistical measures for grouped and ungrouped data and create graphs to represent different types of data.	S3
3	Values:	
3.1	Show teamwork skills and responsibility for self-learning and commitment.	V1, V2
3.2	Interpret software output and write/analyze statistical reports.	V3

C. Course Content

No	List of Topics	Contact Hours
1	Introduction to statistical science	3
2	Data collection, coding and presentation	3
3	Measures of location and dispersion	6
4	Measures of relative dispersion and skewness and kurtosis	3
5	Coefficient of correlation and simple regression	6
6	Probability theory	3
7	Random variables	3
8	Special Probability Distributions	6
9	Introduction to Sampling distributions	4.5
10	Introduction to estimation theory	3
11	Introduction to hypotheses testing	4.5
Total		60

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
1.1	List different types of data and methods of data collection.	• Lectures	• Examinations • Coursework
1.2	Identify different graphical tools and numerical measures of descriptive		

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
	statistics.		assessments
1.3	Recall different forms of correlation and the structure of linear regression equations.		• Assignments
1.4	Memorize basic rules and types of probabilities, random variables and probability distributions.		
1.5	Define the basic concepts of sampling, statistical estimation and statistical hypotheses testing.		
2.0	Skills		
2.1	Calculate summary statistical measures for grouped and ungrouped data and create graphs to represent different types of data.	• Lectures • Case studies • Classwork	• Examinations • Coursework assessments • Assignments • Project
2.2	Measure the correlation between two variables and predict the values of a variable based upon an estimated regression line.		
2.3	Calculate different types of probabilities and moments for discrete and continuous distributions.		
2.4	Estimate population parameters and test different hypotheses about them based upon sample data.		
2.5	Use statistical packages to create graphs and calculate statistical measures.		
3.0	Values		
3.1	Show teamwork skills and responsibility for self-learning and commitment.	• Classwork	
3.2	Interpret software output and write/analyze statistical reports.	• Case studies • Classwork • Lab tutorials	• Examinations • Coursework assessments • Assignments • Project
...			

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Essays, reports and presentations	During Semester	10%
2	Quizzes	4 th and 10 th	5%
3	Project	12 th	15%
4	Mid Term Exam	8 th	30%
5	Final exam	16 th	40%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

- 3 weekly office hours.
- There is an academic advising unit in the college.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	• Dr. Abdullah al-Najjar and Dr. Osama Hanafi, "Principles of Statistics for the Humanities with computer applications," IDC, second edition, 2013.
Essential References Materials	• Dr. Mohamed Sobhi Abu Saleh and Dr. Adnan Mohammed Awad, "Introduction to Statistics: Principles and analyzes using SPSS", Dar Almasira for publication and distribution, third edition, 2007. • Mohammed Hussein Mohammed Qadri, "The principles of statistics and probability and processed using SPSS program," Dar Safa For Printing, Publishing and Distribution, 2012.
Electronic Materials	• Recorded lectures.
Other Learning Materials	• A group of computer programs/applications (Word - Excel - Power point - SPSS).

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	• Classrooms • Blackboard system
Technology Resources (AV, data show, Smart Board, software, etc.)	• Data show • Smart board • PC/Laptop
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	• None

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course evaluation surveys (CES) (twice a year).	• Students	Direct
Students' evaluation surveys (SES & PES) (once a year).	• Students	Direct
Courses evaluation workshops (every semester).	• Head of department • Teaching staff	Direct / Indirect
Annual program report	• Program coordinator	Direct / Indirect

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course report (every semester)	• Course Instructor • Course coordinator	Direct / Indirect

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Quantitative Methods Department Council
Reference No.	Third meeting for the – academic year 1441/1442 H
Date	Thursday 28/2/1442 (15/10/2020)



Course Specifications

Course Title:	Regression Analysis and Time Series
Course Code:	QM 0606-303
Program:	Risk and Insurance
Department:	Quantitative Methods
College:	College of Business Administration
Institution:	King Faisal University

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1. Learning Resources	5
2. Facilities Required	6
G. Course Quality Evaluation	6
H. Specification Approval Data	6

A. Course Identification

1. Credit hours:	3 Hours
2. Course type	
a.	University ☐ College ☐ Department ☒ Others ☐
b.	Required ☒ Elective ☐
3. Level/year at which this course is offered:	Level 5 / 3 rd year
4. Pre-requisites for this course (if any):	Statistical Analysis - QM 0606-104
5. Co-requisites for this course (if any):	None

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	45	100%
2	Blended		
3	E-learning		
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	45
2	Laboratory/Studio	
3	Tutorial	
4	Others (specify)	
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

This course covers two of the widely used statistical methods for fitting data; namely regression analysis (linear and non-linear) and univariate time series models (ARIMA models)

2. Course Main Objective

The main objective of this course is to provide students with the required knowledge and tools to use regression and time-series for prediction purposes in insurance.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding	
1.1	Memorize the basics of linear regression including the steps of building and testing the model and expressing the model using matrices.	K3
1.2	Recognize different forms of nonlinear regression models and transformations.	K3
1.3	Identify some known forms of univariate deterministic and stochastic	K3

CLOs		Aligned PLOs
	time series models.	
2	Skills :	
2.1	Estimate the parameters of different linear and nonlinear regression models.	S3, S4
2.2	Measure both the goodness of fit and the prediction error for linear regression models.	S3, S4
2.3	Evaluate violations of linear regression assumptions and use some possible transformations or solutions.	S3
2.4	Calculate seasonal effects for traditional time series models and use them for predicting future values of the series.	S3
3	Values:	
3.1	Show teamwork skills and responsibility for self-learning and commitment.	V1, V2
3.2	Prepare and interpret data analysis reports applying regression and time series models to insurance data using different statistical software.	V3

C. Course Content

No	List of Topics	Contact Hours
1	Simple linear regression	4
2	Multiple-linear regression	10
3	Introduction to Non-linear regression	7
4	Introduction to time series analysis	10
Total		31

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
1.1	Outline the steps of building and testing a linear regression model.	• Lectures Case studies	• Examinations • Coursework assessments
1.2	Recognize different forms of linear and nonlinear regression models.		
1.3	Identify some known forms of univariate deterministic and stochastic time series models.	• Lectures	
2.0	Skills		
2.1	Estimate the parameters of different linear and nonlinear regression models.	• Lectures • Case studies • Classwork • Lab tutorials	• Examinations • Coursework assessments • Assignments
2.2	Measure both the goodness of fit and the prediction error for linear regression models.		
2.3	Evaluate violations of linear regression assumptions and use some possible transformations or solutions		

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
2.4	Calculate seasonal effects for traditional time series models and use them for predicting future values of the series.		
3.0	Values		
3.1	Show teamwork skills and responsibility for self-learning and commitment.	• Classwork • Projects	Coursework assessments
3.2	Prepare and interpret data analysis reports applying regression and time series models using different statistical software.	• Case studies • Lab tutorials • Projects	• Examinations • Coursework assessments • Reports
...			

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	In-class participation	During Semester	5%
2	Assignments, reports and presentations	During Semester	20%
3	Quizzes	3 rd	5%
4	Mid Term Exam	8 th	30%
5	Final exam	16 th	40%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

- 3 weekly office hours.
- There is an academic advising unit in the college.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	• Douglas C. Montgomery, Elizabeth E. Peck and Geoffrey G. Vining: Introduction to linear regression analysis, 4th edition student solutions manual (Wiley series in probability and statistics, ISBN: 0470125063, 2007. • Peter J. Brockwell, et al., Time series - Theory and methods, 2nd Edition (Springer series in statistics), ISBN: 8184890869, 2009.
Essential References Materials	Determined by course instructor.
Electronic Materials	A group of computer programs/applications (R - SPSS - Excel - Word - Power point).

Other Learning Materials	None
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2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Classrooms
Technology Resources (AV, data show, Smart Board, software, etc.)	• Data show • Smart board • PC/Laptop
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	None

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course evaluation surveys (CES) (twice a year).	Students	Direct
Students' evaluation surveys (SES & PES) (once a year).	Students	Direct
Courses evaluation workshops (every semester).	• Head of department • Teaching staff	Direct / Indirect
Annual program report	Program coordinator	Direct / Indirect
Course report (every semester)	• Course Instructor • Course coordinator	Direct / Indirect

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Quantitative Methods Department Council
Reference No.	Third meeting for the – academic year 1441/1442 H
Date	Thursday 28/2/1442 (15/10/2020)



Course Specifications

Course Title:	Fundamentals of Mathematics for Business
Course Code:	QM 0676-101
Program:	Risk and Insurance
Department:	Quantitative Methods
College:	School of Business
Institution:	King Faisal University





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A. Course Identification

1. Credit hours:	3 Hours
2. Course type	
a.	University ☐ College ☒ Department ☐ Others ☐
b.	Required ☒ Elective ☐
3. Level/year at which this course is offered:	Level 1 / 1 st Year
4. Pre-requisites for this course (if any):	None
5. Co-requisites for this course (if any):	None

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	45	100%
2	Blended		
3	E-learning		
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	45
2	Laboratory/Studio	
3	Tutorial	
4	Others (specify)	
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

This course provides students with the opportunity to learn and apply essential mathematical skills in business context. Through relevant business applications, students will develop problem solving and critical thinking skills.

2. Course Main Objective

The main objective of this course is to provide students with the background about basic mathematical tools for solving economics and business problems.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding	
1.1	Identify types of functions, its domain and range and different methods to solve equations and inequalities	K3
1.2	Recall the basic rules of differentiation and integration.	K3
1.3	List the formulas for the general term and the sum of a sequence.	K3
1.4	Memorize basic properties of matrices and determinants.	K3

CLOs		Aligned PLOs
2	Skills :	
2.1	Perform basic math operations on functions and solve different types of equations and inequalities.	S3
2.2	Apply differentiation and integration in business and economics context.	S3
2.3	Calculate future value and interest of a single investment using sequences.	S2
2.4	Use matrices and determinants in presenting and solving business and economics problems.	S3
3	Values:	
3.1	Show teamwork skills and responsibility for self-learning and commitment.	V1, V2
3.2	Formulate functions, equations and inequalities to represent different business situations and interpret math results from a business/economic perspective.	V3

C. Course Content

No	List of Topics	Contact Hours
1	Sets and Functions	6
2	Equations and Inequalities	7.5
3	Differentiation	7.5
4	Integration	6
5	Sequences	7.5
6	Determinants and Matrices	10.5
Total		45

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
1.1	Identify types of functions, its domain and range and different methods to solve equations and inequalities	• Lectures • Classwork	• Examinations • Coursework assessments
1.2	Recall the basic rules of differentiation and integration.		
1.3	List the formulas for the general term and the sum of a sequence.		
1.4	Memorize basic properties of matrices and determinants.		
2.0	Skills		
2.1	Perform basic math operations on functions and solve different types of equations and inequalities.	• Lectures • Case studies • Classwork	• Examinations • Coursework assessments - Assignments
2.2	Apply differentiation and integration in business and economics context.		
2.3	Calculate future value and interest of a single investment using sequences.		

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
2.4	Use matrices and determinants in presenting and solving business and economics problems.		
3.0	Values		
3.1	Show teamwork skills and responsibility for self-learning and commitment.	• Classwork	• Coursework assessments • Assignments
3.2	Formulate functions, equations and inequalities to represent different business situations and interpret math results from a business/economic perspective.	• Case studies • Classwork	• Examinations • Coursework assessments • Assignments

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	In-class participation	During Semester	5%
2	Assignments, reports and presentations	During Semester	15%
3	Quizzes	5 th and 9 th	10%
4	Mid Term Exam	8 th	30%
5	Final exam	16 th	40%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

- 3 weekly office hours.
- There is an academic advising unit in the college.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	Haeussler E., Paul R. and Wood R. "Introductory Mathematical Analysis for Business, Economics and the Life and social Sciences", 13th edition, 2011.
Essential References Materials	Diyab, Abdulaziz and Wasif, Jamal, "Fundamentals of Quantitative Analysis for Economics and Business", Jarir, 3rd edition, 2013.
Electronic Materials	Recorded lectures.
Other Learning Materials	A group of computer programs/applications (Word - Excel - Power point).

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	• Classrooms • Blackboard system
Technology Resources (AV, data show, Smart Board, software, etc.)	• Data show • Smart board • PC/Laptop
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	• None

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course evaluation surveys (CES) (twice a year).	• Students	Direct
Students' evaluation surveys (SES & PES) (once a year).	• Students	Direct
Courses evaluation workshops (every semester).	• Head of department • Teaching staff	Direct / Indirect
Annual program report	• Program coordinator	Direct / Indirect
Course report (every semester)	• Course Instructor • Course coordinator	Direct / Indirect

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Quantitative Methods Department Council
Reference No.	Third council meeting for the academic year 1441/1442 H.
Date	Thursday 28/2/1442 H. (15 th of October 2020)



Course Specifications

Course Title:	Quantitative Methods for Business
Course Code:	QM 0676-202
Program:	Risk and Insurance
Department:	Quantitative Methods
College:	School of Business
Institution:	King Faisal University

جامعة الملك فيصل
KING FAISAL UNIVERSITY
كلية إدارة الأعمال
School of Business
مكتب الشؤون الأكاديمية

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A. Course Identification

1. Credit hours:	3 hours
2. Course type	
a.	University ☐ College ☒ Department ☐ Others ☐
b.	Required ☒ Elective ☐
3. Level/year at which this course is offered:	Level 3 / 2 nd year
4. Pre-requisites for this course (if any):	Introduction to Statistics - 0676102
5. Co-requisites for this course (if any):	None

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	45	100%
2	Blended		
3	E-learning		
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	42
2	Laboratory/Studio	3
3	Tutorial	
4	Others (specify)	
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

Quantitative Methods for Business helps in solving problems in different decision-making environments. The course covers topics that include linear programming, DEA models, decision analysis and simulation. Analytic techniques and computer packages will be used to solve problems facing business managers in decision environments.

2. Course Main Objective

The main purpose of this course is to familiarize students how to use quantitative methods to solve an array of business and organizational problems, as well as improve decision-making.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding:	
1.1	Define the basic concepts of linear programming including model formulation, solution methods, duality and sensitivity.	K3
1.2	Explain efficiency concepts and identify DEA models for measuring relative efficiency.	K3

1.3	Illustrate the use of quantitative methods in decision-making and recognize different criteria for decision making under certainty, risk and uncertainty.	K3
1.4	Recall the definition of simulation and its applications.	K1, K3
2	Skills:	
2.1	Formulate linear programming models and solve them using both graphical and simplex methods.	S3
2.2	Transform linear programming models into dual forms and perform sensitivity analysis.	S3
2.3	Calculate expected values and pay-offs for different types of decision-making models.	S1, S2, S3
2.4	Apply Monte-Carlo simulation models to simulate demand, queuing systems and inventory.	S2, S3
2.5	Use different software to solve LP models and measure efficiency using different DEA models.	S4
3	Values:	
3.1	Show teamwork skills and responsibility for self-learning and commitment.	V1, V2
3.2	Interpret software outputs for different optimization models and write/analyze results' reports.	V3

C. Course Content

No	List of Topics	Contact Hours
1	Introduction to Operations Research	3
2	Formulation of Linear Programming (LP) problems	4.5
3	Methods of solving linear programming problems	9
4	Duality problem and its economic interpretation	6
5	Sensitivity analysis in LP	4.5
6	Data Envelopment Analysis (DEA)	6
7	Decision Analysis (DA)	6
8	Introduction to Simulation	6
Total		45

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
1.1	Define the basic concepts of linear programming including model formulation, solution methods, duality and sensitivity.	• Lectures	• Examinations • Coursework assessments
1.2	Explain efficiency concepts and identify DEA models for measuring relative efficiency.		
1.3	Illustrate the use of quantitative methods in decision-making and recognize different criteria for decision making under certainty, risk and uncertainty.		

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.4	Recall the definition of simulation and its applications.		
2.0	Skills		
2.1	Formulate linear programming models and solve them using both graphical and simplex methods.	• Lectures • Case studies • Classwork	• Examinations • Coursework assessments • Assignments
2.2	Transform linear programming models into dual forms and perform sensitivity analysis.	• Lectures • Classwork	
2.3	Calculate expected values and pay-offs for different types of decision-making models.	• Lectures • Classwork	
2.4	Apply Monte-Carlo simulation models to simulate demand, queuing systems and inventory.	• Lectures • Case studies • Classwork	
2.5	Use different software to solve LP models and measure efficiency using different DEA models.	• Lab tutorials • Case studies • Classwork	
3.0	Values		
3.1	Show teamwork skills and responsibility for self-learning and commitment.	• Classwork	• Coursework assessments • Assignments
3.2	Interpret software outputs for different optimization models and write/analyze results' reports.	• Lab tutorials • Case studies • Projects	• Examinations • Coursework assessments • Reports

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	In-class participation	During Semester	5%
2	Assignments, reports and presentations	During Semester	20%
3	Quizzes	3 rd	5%
4	Mid Term Exam	8 th	30%
5	Final exam	16 th	40%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice:

- 3 weekly office hours.
- There is an academic advising unit in the college.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	• Williams, J. Camm and K. Martin, Quantitative Methods for Business, 10th Edition, South-Western Cengage Learning, USA, 2009. • Rander B., Ralph M. and Michael E., "Quantitative Analysis for Management", Eleventh Edition, Prentice Hall, 2012.
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Essential References Materials	• Najm A., Introduction to Quantitative Methods: Models and applications. Alwaraq Publishers, Amman, Jordan, 2003. • Elrefae G. and Bekhet H., Quantitative Analysis for Business: Methods and Techniques by using computer. Alahlia Publishers, Amman, Jordan, 2008. • Charnes, A., Cooper, W.W., Lewin, A.Y., Seiford, L.M., Data Envelopment Analysis: Theory, Methodology, and Applications, ISBN-13: 978-0792394792.
Electronic Materials	• http://www2.informs.org/Resources/ • http://ifors.org/web/ • http://mat.gsia.cmu.edu/ • http://www.scienceofbetter.org/ • http://www.mit.edu/~orc
Other Learning Materials	• A group of computer programs/applications (Word, Excel, Power point, Lindo, Lingo, QM for Windows, R).

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	• Classrooms
Technology Resources (AV, data show, Smart Board, software, etc.)	• Data show • Smart board • PC/Laptop
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	• None

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course evaluation surveys (CES) (twice a year).	• Students	Direct
Students' evaluation surveys (SES & PES) (once a year).	• Students	Direct
Courses evaluation workshops (every semester).	• Head of department • Teaching staff	Direct / Indirect
Annual program report	• Program coordinator	Direct / Indirect
Course report (every semester)	• Course Instructors • Course coordinator	Direct / Indirect

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Quantitative Methods Department Council
Reference No.	Third council meeting for the academic year 1441/1442 H.
Date	Thursday 28/2/1442 H. (15 th of October 2020)



Course Specifications

Course Title:	Fundamentals of Scientific Research
Course Code:	QM 0676-204
Program:	Risk and Insurance
Department:	Quantitative Methods
College:	School of Business
Institution:	King Faisal University



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A. Course Identification

1. Credit hours: 3hours	
2. Course type	
a.	University ☐ College ☐ Department ☒ Others ☐
b.	Required ☒ Elective ☐
3. Level/year at which this course is offered: Level 4 / 2 nd year	
4. Pre-requisites for this course (if any): Fundamentals of Risk and Insurance - 0676203	
5. Co-requisites for this course (if any): None	

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	30	100%
2	Blended		
3	E-learning		
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	30
2	Laboratory/Studio	
3	Tutorial	
4	Others (specify)	
	Total	30

B. Course Objectives and Learning Outcomes

1. Course Description This course is mainly about recognizing the nature and methodology of scientific research and apply this in risk and insurance fields.
2. Course Main Objective The main purpose of this course is to enable the student to prepare a scientific research proposal in the context of risk and insurance.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding	
1.1	Define scientific research and identify the difference between it and other related concepts.	K1

1.2	Recognize the approaches, steps and methodology of scientific research.	K1
1.3	List the different methods and tools for collecting data and selecting variables for research.	K3
2	Skills :	
2.1	Design a questionnaire to collect information on the subject of research.	S1, S3
2.2	Prepare a research proposal to investigate a research problem in risk and insurance.	S1, S3
2.3	Compose research questions and explain the steps to answer them through hypotheses testing.	S1, S3
3	Values:	
3.1	Show teamwork skills and responsibility for self-learning and commitment.	VI, V2
3.2	Demonstrate ethical and professional responsibility in doing research.	V3

C. Course Content

No	List of Topics	Contact Hours
1	Introduction to scientific research	4
2	Research methodology	16
3	Preparing research proposals and reports	10
Total		30

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
1.1	Define scientific research and identify the difference between it and other related concepts.	• Lectures • Case studies	• Examinations • Coursework assessments
1.2	Recognize the approaches, steps and methodology of scientific research.		
1.3	List the different methods and tools for collecting data and selecting variables for research.		
2.0	Skills		
2.1	Design a questionnaire to collect information on the subject of research.	• Lectures • Case studies • Classwork	• Examinations • Coursework assessments • Assignments
2.2	Prepare a research proposal to investigate a research problem in risk and insurance.		
2.3	Compose research questions and explain the steps to answer them through hypotheses testing.		
3.0	Values		
3.1	Show teamwork skills and responsibility for self-learning and commitment.	• Classwork • Projects	• Coursework assessments • Reports
3.2	Demonstrate ethical and professional responsibility in doing research.		

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	In-class participation	During Semester	5%
2	Assignments, reports and presentations	During Semester	20%
3	Quizzes	3 th	5%
4	Mid Term Exam	8 th	30%
5	Final exam	16 th	40%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

- 1.5 weekly office hours.
- There is an academic advising unit in the college.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	• Lesley Anderes, "Designing and doing Survey Research", Amazon, USA, 2012. • Bhattacharjee A., "Social Science Research: Principles, Methods, and Practices", 2012.
Essential References Materials	• Ahmed Hussein Rifai, Curricula scientific research, economic and administrative applications, Wael for publication, Amman, Jordan, 2009. • Tahsin Tarawneh, "curricula and practical research, Dar Wael for Publishing and Distribution, Amman, Jordan, 2006.
Electronic Materials	• None
Other Learning Materials	• A group of computer programs/applications (Word, Excel, Power point).

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	• Classrooms
Technology Resources (AV, data show, Smart Board, software, etc.)	• Data show • Smart board • PC/Laptop
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	• None

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course evaluation surveys (CES) (twice a year).	• Students	Direct
Students' evaluation surveys (SES & PES) (once a year).	• Students	Direct
Courses evaluation workshops (every semester).	• Head of department • Teaching staff	Direct / Indirect
Annual program report	• Program coordinator	Direct / Indirect
Course report (every semester)	• Course Instructor Course coordinator	Direct / Indirect

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Quantitative Methods Department Council
Reference No.	Third council meeting for the academic year 1441/1442 H.
Date	Thursday 28/2/1442 H. (15 th of October 2020)



Course Specifications

Course Title:	General Insurance
Course Code:	QM 0676-207
Program:	Risk and Insurance
Department:	Quantitative Methods
College:	School of Business
Institution:	King Faisal University



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A. Course Identification

1. Credit hours: 3 hours	
2. Course type	
a.	University ☐ College ☐ Department ☒ Others ☐
b.	Required ☒ Elective ☐
3. Level/year at which this course is offered: Level 4 / 2 nd year	
4. Pre-requisites for this course (if any): Fundamentals of Risk and Insurance - QM 0676-203	
5. Co-requisites for this course (if any): None	

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	45	100%
2	Blended		
3	E-learning		
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	45
2	Laboratory/Studio	
3	Tutorial	
4	Others (specify)	
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

An introduction to the concepts and technical bases of most known types of property and liability insurance.

2. Course Main Objective

The main purpose of this course is to study some known branches of property and liability insurance and its practical application.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding	
1.1	Recall different types of property and liability risks and policies.	K1
1.2	Describe typical property/liability insurance policies in terms of covered causes of loss, exclusions and possible additional coverages.	K1, K2
1.3	Identify the factors that affect property/liability insurance premiums.	K1, K2
2	Skills :	

CLOs		Aligned PLOs
2.1	Calculate property and liability insurance premiums using the expected loss approach.	S2
2.2	Determine whether, and for what amount, the property/liability insurance covers a described claim for different situations.	S1
2.3	Compare coverages and exceptions of typical property and liability insurance policies in Saudi Arabia.	S1
3	Values:	
3.1	Show teamwork skills and responsibility for self-learning and commitment.	V1, V2

C. Course Content

No	List of Topics	Contact Hours
1	Introduction to property and liability risks	3
2	Automobile insurance	12
3	Fire insurance	10.5
4	Marine and aviation insurance	10.5
5	Accident and liability insurance	9
Total		45

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
1.1	Recall different types of property and liability risks and policies.	- Lectures - Case studies	- Examinations - Coursework assessments - Assignments
1.2	Describe typical property/liability insurance policies in terms of covered causes of loss, exclusions and possible additional coverages.		
1.3	Identify the factors that affect property/liability insurance premiums.		
2.0	Skills		
2.1	Calculate property and liability insurance premiums using the expected loss approach.	- Lectures - Case studies - Classwork	- Examinations - Coursework assessments - Assignments
2.2	Determine whether, and for what amount, the property/liability insurance covers a described claim for different situations.		
2.2	Compare coverages and exceptions of typical property and liability insurance policies in Saudi Arabia.		
3.0	Values		
3.1	Show teamwork skills and	Case studies	Coursework

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
	responsibility for self-learning and commitment.	Classwork	assessments Assignments

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Essays, reports and presentations	During Semester	20
2	Quizzes	4 th	10
3	Mid Term Exam	7 th	30
5	Final exam	16 th	40

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice:

- 3 weekly office hours
- There is an academic unit advice in the college

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	• Carter, Craig A., "Property & Casualty Insurance Primer", Amazon, 1998. • Parodi P., "Pricing in General Insurance", Amazon, 2015.
Essential References Materials	• Osman M. A., et al., "Property Insurance: Concepts and Applications", King Saud University, Riyadh, KSA, 2020. • Osman M. A., et al., "Liability and Accidents Insurance: Concepts and Applications ", King Saud University, Riyadh, KSA, 2020.
Electronic Materials	None
Other Learning Materials	• A group of programs desktop (Word - Excel - Power point).

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Classrooms
Technology Resources (AV, data show, Smart Board, software, etc.)	• Data show • Smart board Laptop
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	None

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course evaluation surveys (CES) (twice a year).	Students	Direct
Students' evaluation surveys (SES & PES) (once a year).	Students	Direct
Courses evaluation workshops (every semester).	• Head of department • Teaching staff	Direct / Indirect
Annual program report	Program coordinator	Direct / Indirect
Course report (every semester)	• Course Instructor • Course coordinator	Direct / Indirect

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Quantitative Methods Department Council
Reference No.	Third council meeting for the academic year 1441/1442 H.
Date	Thursday 28/2/1442 H. (15 th of October 2020)



Course Specifications

Course Title:	Financial Mathematics for Insurance
Course Code:	QM 0676-208
Program:	Risk and Insurance
Department:	Quantitative Methods
College:	School of Business
Institution:	King Faisal University

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A. Course Identification

1. Credit hours:			
2. Course type			
a.	University ☐	College ☐	Department ☒
b.	Required ☒	Elective ☐	Others ☐
3. Level/year at which this course is offered: Level 4 / 2 nd year			
4. Pre-requisites for this course (if any): Fundamentals of Mathematics for Business - QM 0676-101			
5. Co-requisites for this course (if any): None			

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	45	100%
2	Blended		
3	E-learning		
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	45
2	Laboratory/Studio	
3	Tutorial	
4	Others (specify)	
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

This course introduces the basics of simple and compound interest and the idea of money accumulation and discount. The course also highlights the use of compound interest in calculating the present value of insurance benefits and the present value of premiums.

2. Course Main Objective

The main purpose of this course is to explain the use of both simple and compound interest tools as a basis for calculating the present value of insurance benefits.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding	
1.1	Recognize the basic laws of simple and compound interest.	K3
1.2	Recall the concepts of amount and present value and their interpretation in business and finance.	K3
1.3	Outline some practical applications to simple and compound interest in risk and insurance.	K3
2	Skills :	

CLOs		Aligned PLOs
2.1	Differentiate between simple and compound interest applications in business.	S2
2.2	Calculate the amount and the present value for both equal and changing payments using simple and compound interest.	S2
2.3	Calculate the interest, amount and present values for composite payments or cash flows.	S2
3	Values:	
3.1	Show teamwork skills and responsibility for self-learning and commitment.	V1, V2

C. Course Content

No	List of Topics	Contact Hours
1	Simple interest	21
2	Compound interest	21
3	Some applications of financial mathematics in insurance	3
Total		45

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
1.1	Recognize the basic laws of simple and compound interest.	• Lectures • Case studies • Classwork	• Examinations • Coursework assessments • Assignments
1.2	Recall the concepts of amount and present value and their interpretation in business and finance.		
1.3	Outline some practical applications to simple and compound interest in risk and insurance.		
2.0	Skills		
2.1	Differentiate between simple and compound interest applications in business.	• Lectures • Case studies • Classwork	• Examinations • Coursework assessments • Assignments
2.2	Calculate the amount and the present value for both equal and changing payments using simple and compound interest.		
2.3	Calculate the interest, amount and present values for composite payments or cash flows.		
3.0	Values		
3.1	Show teamwork skills and responsibility for self-learning and commitment.	• Classwork	• Coursework assessments • Assignments

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Assignments, essays, reports and presentations	During Semester	15%
2	Quizzes	During Semester	15%
3	Mid Term Exam	8 th	30%
4	Final exam	16 th	40%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

- 3 weekly office hours.
- There is an academic advising unit in the college.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	• Ahmed Kamhawi Abaza, introduction financial mathematic and investment analysis, library alroshd, 2004.
Essential References Materials	• Broverman, S.A., "Mathematics of Investment and Credit" (fourth edition), 2008, actex, publications. • Ruckman, C. and Francis, J., "Financial Mathematics: A Guide for Actuaries, and other business professionals", Connection discussion forums, Second edition, BPP, 2005.
Electronic Materials	• None
Other Learning Materials	• A group of computer programs/applications (Word - Excel - Power point).

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	• Classrooms
Technology Resources (AV, data show, Smart Board, software, etc.)	• Data show • Smart board • PC/Laptop
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	• None

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course evaluation surveys (CES) (twice a year).	• Students	Direct
Students' evaluation surveys (SES & PES) (once a year).	• Students	Direct
Courses evaluation workshops (every semester).	• Head of department • Teaching staff	Direct / Indirect
Annual program report	• Program coordinator	Direct / Indirect
Course report (every semester)	• Course Instructor • Course coordinator	Direct / Indirect

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Quantitative Methods Department Council
Reference No.	Third council meeting for the academic year 1441/1442 H.
Date	Thursday 28/2/1442 H. (15 th of October 2020)



Course Specifications

Course Title:	Probabilities and Simulation for Insurance
Course Code:	QM0676-303
Program:	Risk and Insurance
Department:	Quantitative Methods
College:	School of Business
Institution:	King Faisal University



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A. Course Identification

1. Credit hours: 3 hours	
2. Course type	
a.	University ☐ College ☐ Department ☒ Others ☐
b.	Required ☒ Elective ☐
3. Level/year at which this course is offered: Level 6 / 3 rd year	
4. Pre-requisites for this course (if any):	
• Risk and Insurance - QM 0676-203 • Computational Statistical - QM 0676-205	
5. Co-requisites for this course (if any):	
None	

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	45	100%
2	Blended		
3	E-learning		
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	45
2	Laboratory/Studio	
3	Tutorial	
4	Others (specify)	
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

This course introduces the fundamentals of probability theory, univariate and multivariate statistical probability distributions, moments, and simulation models and its application in various areas of risk and insurance.

2. Course Main Objective

The main purpose of this course is to provide students with the necessary knowledge of probability theory and simulation models in risk and insurance context.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding:	
1.1	Memorize basic rules of counting and probability calculation.	K3
1.2	Recognize probability density functions and properties for some special discrete and continuous probability distributions.	K3
1.3	Define simulation and recall its applications in risk and insurance.	K3
2	Skills:	
2.1	Calculate theoretical, empirical and conditional probabilities.	S2

CLOs		Aligned PLOs
2.2	Construct conditional, marginal and multivariate probability distributions and calculate its central and non-central moments.	S2
2.3	Calculate conditional, marginal and multivariate probabilities for discrete and continuous probability distributions.	S2, S4
2.4	Use probability distributions to estimate the number of losses and the value of a single loss for an insured risk.	S3, S4
3	Values:	
3.1	Show teamwork skills and responsibility for self-learning and commitment.	VI, V2
3.2	Simulate insurance data using different statistical software.	V3

C. Course Content

No	List of Topics	Contact Hours
1	Introduction to Probability theory.	15
2	Special probability distributions.	12
3	Multivariate probability distributions.	9
4	Simulation in risk and insurance.	9
Total		45

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Assessment Methods			
Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding:		
1.1	Memorize basic rules of counting and probability calculation.	• Lectures • Classwork	• Examinations • Coursework assessments
1.2	Recognize probability density functions and properties for some special discrete and continuous probability distributions.		
1.3	Define simulation and recall its applications in risk and insurance.		
2.0	Skills:		
2.1	Calculate simple theoretical, empirical and conditional probabilities.	• Lectures • Classwork	• Examinations • Coursework assessments • Assignments
2.2	Construct conditional, marginal and multivariate probability distributions and calculate its central and non-central moments.		
2.3	Calculate conditional, marginal and multivariate probabilities for discrete and continuous probability distributions.	• Lectures • Classwork • Lab tutorials	
2.4	Use probability distributions to estimate the number of losses and the value of a single loss for an insured risk.	• Lectures • Case studies • Classwork • Lab tutorials	

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
3.0	Values:		
3.1	Show teamwork skills and responsibility for self-learning and commitment.	• Classwork • Projects	• Coursework assessments • Assignments
3.2	Simulate insurance data using different statistical software.	• Case studies • Classwork • Projects	• Coursework assessments • Reports

2. Assessment Tasks for Students

#	Assessment task [*]	Week Due	Percentage of Total Assessment Score
1	In-class participation	During Semester	5%
2	Assignments, reports and presentations	During Semester	15%
3	Quizzes	3 rd	10%
4	Mid Term Exam	7 th	30%
5	Final exam	16 th	40%

^{*}Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice:

- 3 weekly office hours.
- There is an academic advising unit in the college.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	Hassett M. & D. Stewart, Probability for Risk Management, Actex Publications, 2006.
Essential References Materials	• Handouts and other material provided or recommended by the course instructor. • Philip J. Boland, Statistical and Probabilistic Methods in Actuarial Science, Amazon, 2007. • Bean M .A., Probability: The Science of Uncertainty with Applications to Investments, Insurance & Engineering, Premium Cole Publishing Company, 2001
Electronic Materials	A group of computer programs/applications (R - SPSS - Excel - Word - Power point).
Other Learning Materials	None

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	• Classrooms • Computer labs
Technology Resources (AV, data show, Smart Board, software, etc.)	• Data show • Smart board • PC/Laptop
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	None

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course evaluation surveys (CES) (twice a year).	Students	Direct
Students' evaluation surveys (SES & PES) (once a year).	Students	Direct
Courses evaluation workshops (every semester).	• Head of department - Teaching staff	Direct / Indirect
Annual program report	Program coordinator	Direct / Indirect
Course report (every semester)	• Course Instructor - Course coordinator	Direct / Indirect

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Quantitative Methods Department Council
Reference No.	Third council meeting for the academic year 1441/1442 H.
Date	Thursday 28/2/1442 H. (15 th of October 2020)



Course Specifications

Course Title:	Health Insurance
Course Code:	QM 0676-304
Program:	Risk and Insurance
Department:	Quantitative Methods
College:	School of Business
Institution:	King Faisal University

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F. Learning Resources and Facilities.....	Error! Bookmark not defined.
1. Learning Resources	Error! Bookmark not defined.
2. Facilities Required	Error! Bookmark not defined.
G. Course Quality Evaluation	Error! Bookmark not defined.
H. Specification Approval Data	Error! Bookmark not defined.

A. Course Identification

1. Credit hours: 3 Hours	
2. Course type	
a.	University ☐ College ☐ Department ☒ Others ☐
b.	Required ☐ Elective ☒
3. Level/year at which this course is offered: Level 7 / 4 th year	
4. Pre-requisites for this course (if any): Social Insurance – QM 0676-302	
5. Co-requisites for this course (if any): None	

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	45	100%
2	Blended		
3	E-learning		
4	Correspondence		
5	Other		

Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	45
2	Laboratory/Studio	
3	Tutorial	
4	Others (specify)	
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

Identify the development of health insurance in the Kingdom of Saudi Arabia and the concept of cooperative health insurance, its importance, and its objectives and identify the role of insurance companies in the application of the cooperative health insurance system.

2. Course Main Objective

The main purpose of this course is to provide students with the necessary knowledge related to all aspects of health insurance and apply it to cooperative health insurance market in Saudi Arabia.

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	Knowledge:	
1.1	Define the basic concepts and principles of health insurance.	K1, K2
1.2	Recognize structure, characteristics and typical coverages of the health insurance system in Saudi Arabia.	K1

CLOs		Aligned PLOs
2	Skills:	
2.1	Compare health insurance systems from different countries and identify the differences between health insurance coverages.	S1
2.2	Calculate health insurance contributions and benefits for various types of coverages.	S2
3	Values:	
3.1	Show teamwork skills and responsibility for self-learning and commitment.	V1, V2
3.2	Evaluate the benefits and special conditions for typical health insurance policies in KSA.	V3

C. Course Content

No	List of Topics	Contact Hours
1	Concept, objectives and benefits of health insurance.	9
2	Health insurance systems and financing.	9
3	Underwriting and pricing health insurance.	9
4	Health insurance coverages and claims.	12
5	Health insurance system and regulations in Saudi Arabia.	6
Total		45

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge		
1.1	Define the basic concepts and principles of health insurance.	• Lectures • Case studies • Classwork	• Examinations • Coursework assessments • Assignments
1.2	Recognize the structure and characteristics of the health insurance system in Saudi Arabia.		
2.0	Skills		
2.1	Compare different health insurance coverages in Saudi Arabia.	• Lectures • Case studies • Classwork	• Examinations • Coursework assessments • Assignments
2.2	Calculate health insurance benefits for various types of coverages.		
3.0	Values		
3.1	Show teamwork skills and responsibility for self-learning and	• Classwork	• Coursework

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
	commitment.		assessments • Assignments
3.2	Evaluate the benefits and special conditions for typical health insurance policies in KSA.	• Case studies • Classwork • Projects	• Examinations • Coursework assessments • Reports

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Assignments, in-class participation	During Semester	5%
2	Reports and presentations	During Semester	5%
3	Quizzes	12 th	5%
4	Mid Term Exam #1	7 th	30%
5	Project	During Semester	15%
6	Final exam	16 th	40%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.).

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice:

- 3 weekly office hours.
- There is an academic advising unit in the college.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	• Kenneth B. and Harold D., "Life and Health Insurance", 13th edition, Amazon, 1999. • A. D. Khaled Bin Saad Abdul Aziz Ben Saeed, Cooperative Health Insurance, 1st edition, 1421.
Essential References Materials	• Lectures' handouts and materials.
Electronic Materials	• None
Other Learning Materials	• A group of programs desktop (Word - Excel - Power point).

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	• Classrooms
Technology Resources (AV, data show, Smart Board, software, etc.)	• Data show • Smart board • PC/Laptop
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	• None

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course evaluation surveys (CES) (twice a year).	• Students	Direct
Students' evaluation surveys (SES & PES) (once a year).	• Students	Direct
Courses evaluation workshops (every semester).	• Head of department • Teaching staff	Direct / Indirect
Annual program report	• Program coordinator	Direct / Indirect
Course report (every semester)	• Course Instructor • Course coordinator	Direct / Indirect

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Quantitative Methods Department Council
Reference No.	Third council meeting for the academic year 1441/1442 H.
Date	Thursday 28/2/1442 H. (15 th of October 2020)



Course Specifications

Course Title:	Reinsurance
Course Code:	QM 0676-305
Program:	Risk and Insurance
Department:	Quantitative Methods
College:	School of Business
Institution:	King Faisal University

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A. Course Identification

1. Credit hours: 3hours	
2. Course type	
a.	University ☐ College ☐ Department ☒ Others ☐
b.	Required ☒ Elective ☐
3. Level/year at which this course is offered: Level 6 / 3 rd year	
4. Pre-requisites for this course (if any):	
• General Insurance - QM 0676-207	
5. Co-requisites for this course (if any):	
None	

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	45	100%
2	Blended	-	-
3	E-learning	-	-
4	Distance learning	-	-
5	Other	-	-

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	45
2	Laboratory/Studio	-
3	Tutorial	-
4	Others (specify)	-
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

This course explains the definition and basic types of re-insurance, as well as the application of re-insurance in different branches of insurance and introduces re-insurance market in the Kingdom of Saudi Arabia

2. Course Main Objective

The main purpose of this course is to provide students with the necessary knowledge about the application of re-insurance principles in both property liability and life insurance.

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	Knowledge and Understanding	
1.1	Memorize the definition, basic features and types of reinsurance.	K1, K2
1.2	Recall the legal principles of reinsurance.	K2
1.3	Outline the structure and regulations of reinsurance market in Saudi Arabia.	K2

CLOs		Aligned PLOs
2	Skills :	
2.1	Differentiate reinsurance from insurance, coinsurance and mutual insurance.	S1
2.2	Compare different types of reinsurance.	S1
2.3	Calculate reinsurance premiums and benefits for different reinsurance arrangements.	S2
3	Values:	
3.1	Show teamwork skills and responsibility for self-learning and commitment.	V1, V2

C. Course Content

No	List of Topics	Contact Hours
1	Reinsurance: concept, features and types	18
2	Proportional reinsurance	15
3	Non-Proportional reinsurance	12
Total		45

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
1.1	Recall the definition and basic features of reinsurance.	• Lectures	• Examinations • Coursework Assessments
1.2	Identify different types of reinsurance.	• Lectures	
1.3	Outline the structure and regulations of reinsurance market in Saudi Arabia.	• Lectures • Case studies	
2.0	Skills		
2.1	Differentiate between facultative and treaty reinsurance.	• Lectures • Case studies • Classwork	• Examinations • Coursework Assessments • Assignments
2.2	Compare proportional and non-proportional reinsurance agreements.		
2.3	Calculate reinsurance premiums and benefits for different reinsurance arrangements.		
3.0	Values		
3.1	Show teamwork skills and responsibility for self-learning and commitment.	• Classwork	• Coursework assessments • Assignments

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Assignments, essays, reports and presentations	During Semester	25%
2	Quizzes	4 th and 10 th	5%
3	Mid Term Exam #1	8 th	30%
8	Final exam	16 th	40%

* Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

- 3 weekly office hours.
- There is an academic advising unit in the college.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	• Harison. C. M., Re-insurance, supra and to (first edition), American Institute for Property casualty underwriters/Insurance Institute of America, 2004. • Patrik, G. S., Re-insurance, foundations of casualty actuarial Science (fourth edition), casualty actuarial society, 2001.
Essential References Materials	• Bahaa Bahij Shukri, "Re-insurance between theory and practice", Culture House, Amman, Jordan, 2011. • Nabil Mohamed Mukhtar, "Re-insurance", (Dar AlfekrAlgamey - Alexandria), 2009.
Electronic Materials	None
Other Learning Materials	A group of computer programs/applications (Word - Excel - Power point).

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	• Classrooms
Technology Resources (AV, data show, Smart Board, software, etc.)	• Data show • Smart board • PC/Laptop
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	• None

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course evaluation surveys (CES) (twice a year).	• Students	• Direct
Students' evaluation surveys (SES & PES) (once a year).	• Students	• Direct
Courses evaluation workshops (every semester).	• Head of department • Teaching staff	Direct / Indirect
Annual program report	• Program coordinator	• Direct / Indirect
Course report (every semester)	• Course Instructor • Course coordinator	Direct / Indirect

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Quantitative Methods Department Council
Reference No.	Third council meeting for the academic year 1441/1442 H.
Date	Thursday 28/2/1442 H. (15 th of October 2020)