



# SULTAN QABOOS UNIVERSITY

## COURSE OUTLINE

**PROGRAM: natural resource economics**

<b>1. Course Code</b>	NREC3200	
<b>2. Course Title</b>	Intermediate Statistics for Business and Economics	
<b>3. Credits</b>	3 CH , 12 CP, 6 ECTS	
<b>4. Pre-requisite Course(s)</b>	CAMS 2003 and CAMS 3001	
<b>5. Co-requisite Course(s)</b>		
<b>6. Equivalent Course(s)</b>		
<b>7. Incompatible Course(s)</b>		
<b>8. Course Category</b>	<input type="checkbox"/> University Requirement <input type="checkbox"/> College Requirement <input checked="" type="checkbox"/> Department Requirement <input type="checkbox"/> Specialization Requirement <input type="checkbox"/> Other (specify):	<input type="checkbox"/> University Elective <input type="checkbox"/> College Elective <input type="checkbox"/> Department Elective <input type="checkbox"/> Specialization Elective
<b>9. Course Owner</b>	College: CAMS	Department: DNRE
<b>10. Course Type</b>	<input type="checkbox"/> Lecture <input type="checkbox"/> Lecture/Seminar <input type="checkbox"/> Lecture/Tutorial <input type="checkbox"/> Tutorial <input type="checkbox"/> Field or Work Placement <input type="checkbox"/> Seminar <input type="checkbox"/> Workshop	<input checked="" type="checkbox"/> Lecture/Lab <input type="checkbox"/> Lecture/Studio <input type="checkbox"/> Lecture/Lab/Tutorial or Seminar <input type="checkbox"/> Laboratory (Practical) <input type="checkbox"/> Studio <input type="checkbox"/> Internship <input type="checkbox"/> Project
<b>11. Language of Instruction</b>		
<b>12. Course Description</b>	<p>This course is an intermediate applied statistics course that continues the theme of hands-on data analysis begun in CAMS 3001. Students will learn to use advanced statistical techniques and apply them to problems in natural resource economics and business. This course covers elements of probability and statistics, tabular and graphical presentations of grouped and ungrouped data, descriptive statistics, elements of probability theory, probability distributions, properties of discrete and continuous random variables, standardisation techniques including index numbers, sampling and sampling distributions, constructing and interpreting confidence intervals, fundamentals of hypothesis testing in large and small samples, analysis of variance models for multi-factor designs and multiple comparisons, application of non-parametric test statistics, and simple regression analysis. The application of these concepts to problem solving in business and economics will be emphasized. STATA software will be used to enhance practical learning. This course is a prerequisite for applied econometrics.</p>	
<b>13. Teaching/Learning Strategies</b>	Interactive learning strategy	
<b>14. Assessment Components and Weight [%]</b>	<input checked="" type="checkbox"/> Quizzes <input checked="" type="checkbox"/> Homework assignments <input checked="" type="checkbox"/> In-term examination(s)	
	<input type="checkbox"/> Practical <input type="checkbox"/> Project <input checked="" type="checkbox"/> Final examination	<input type="checkbox"/> Other (specify):
<b>15. Grading Method</b>	<input checked="" type="checkbox"/> A-F Scale <input type="checkbox"/> Pass/Not passed	
<b>16. Textbook(s) and Supplemental Material</b>		

Statistics for Business and Economics 11/E

David Andresen, (University of Cincinnati), Dennis J. Sweeney (University of Cincinnati), and Thomas A. William (Rochester Institute of Technology).

ISBN-10: 0538471883 • ISBN-13: 9780538471886

# 17. Matching Course Objectives with Program Outcomes and SQU Graduate Attributes

## SQU Graduate Attributes

<b>A. SQU graduates should be able to:</b> <ol style="list-style-type: none"> <li>1. apply the knowledge and skills relevant to the specialization</li> <li>2. communicate effectively and use information and communication technologies</li> <li>3. critically analyze complex information and present it in simple clear manner</li> </ol>	<b>B. SQU graduates possess</b> <ol style="list-style-type: none"> <li>1. interpersonal communication skills and alignment with culture of international labour market to assist them in practical life and in living successfully</li> <li>2. skills and motivation for independent learning and engagement in lifelong learning and research</li> <li>3. work ethics and positive values, and intellectual independence and autonomy</li> <li>4. teamwork skills and display potential leadership qualities</li> </ol>	<b>C. SQU graduates should</b> <p>relish good citizenship qualities, be conscious of their national identity and be socially responsible, engage in community affairs and be mindful of contemporary issues.</p>
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#	Intended Student Learning Outcome /Course Learning Objective	Relevant Program Outcome(s)	Applicable Attribute(s)
1.	To provide students with the necessary skills to apply the appropriate statistical techniques in analysing economics and business related problems, develop and evaluate relevant hypotheses, interpret the results and draw justifiable conclusions.	Interpret statistical terms, concepts, theories, and processes that are commonly used to analyse economic and business situations.	
2.		Identify the appropriate statistical technique for analysing economics and business related data.	
3.		Apply appropriate statistical methods to the solution of practical problems in the business and economics disciplines.	
4.		Demonstrate skill in using a computer software (STATA) for data analysis.	
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## **16. Student Responsibilities**

It is the student's responsibility to know and comply with all University Academic Regulations relevant to participation in this course. These regulations specifically include attendance requirement and students' academic code of conduct.

For attendance, it is the student's responsibility to be punctual and to attend all classes.

Students are expected to perform their work with honesty and avoid any academic misconduct, which is defined as the use of any dishonest or deceitful means to gain some academic advantage or benefit. This can take many forms, including but not limited to, the following: copying, plagiarism, collusion and forging documents. For full details, please refer to the Undergraduate Academic Regulations and to the Student Academic Misconduct Policy.

Additionally, this course requires that you:

COURSE INFORMATION			
<b>Course Code</b>	NREC3200	<b>Course Title</b>	Intermediate Statistics for Business and Economics
<b>Semester/ Year</b>	Spring19	<b>Section(s)</b>	10
<b>Day, Time, and Place</b>	Sun/Tus, 8-9:50, Lab		
<b>Course Coordinator</b>			
<b>Office Location</b>		<b>Office Hours</b>	
<b>Office Tel. Ext.</b>		<b>Email</b>	

Tentative Schedule			
Week	Lecture #	Topic/Material to be covered	Assessment
1	1,2	Data and Statistical Thinking. Methods for describing data	
2	3,4	Descriptive statistics: tabular and graphical presentations, numerical measures	
3	5,6	Probability, Random variables and probability distributions	Assignment
4	7,8	Probability, Random variables and probability distributions	Quiz
5	9,10	Sampling distributions	
6	11,12	Inferences based on a single sample: estimation with confidence intervals and test of hypotheses	
7	13,14	Inferences based on a single sample: estimation with confidence intervals and test of hypotheses	Assignment
8	15	Inferences based on two samples: estimation with confidence intervals and test of hypotheses	Midterm
9	16,17	Inferences based on two samples: estimation with confidence intervals and test of hypotheses	
10	17,18	Two-way analysis of variance and multiple comparisons	Assignment
11	18,19	Simple bivariate regression analysis: Assumptions, The Least Square Method, Coefficient of determination, Residual analysis	
12	19,20	Descriptive analysis: index numbers	
13	20,20	Nonparametric Methods	Quiz
14	21,21	Nonparametric Methods	Assignment
15		Revision	
16			Final
17			

## APPENDIX A: INSTRUCTORS OF MULTIPLE SECTIONS

[illegible]

<b>APPENDIX B: ADDITIONAL INFORMATION</b>