



UNIVERSITY
of
TECHNOLOGY,
MAURITIUS

School of Innovative Technologies and Engineering

Department of Applied Mathematical Sciences

BSc (Hons) Business Statistics

PROGRAMME DOCUMENT

VERSION 2.0

BBSv2.0

August 2021

University of Technology, Mauritius

La Tour Koenig, Pointe aux Sables, Mauritius

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A. Programme Information

Business statistics is concerned with the use of several analysis strategies and decision rules to provide industrial managers with critical views of the operational and performance characteristics of the business. Through sophisticated techniques like data mining, exploratory and predictive models amongst others, business analytics experts proceed by examining available data to have a better understanding of a company's past and current positions, foresee prospect upshots and take efficient actions.

This honours programme help in providing the essential tools for an effective application of statistics in a wide range of industrial sectors including education, consulting firms, agriculture, medicine and healthcare sectors, offshore companies, financial institutions, government agencies, economics, marketing, engineering, IT, energy companies, meteorological services, investment firms, banks and insurance amongst others. Moreover, the students will be required to undergo a work placement at the second level of the programme of study.

B. Programme Aims

This programme is designed to equip students with both theoretical and practical statistical skills for industry. The programme covers aspects including computer science, education, economics and marketing amongst others.

C. Programme Objectives

After successful completion of the programme, graduates will be expected to

- have acquired adequate statistical skills for data analysis and interpretation
- have gained a broad insight in statistical decision making for industrial problems
- demonstrate an understanding of statistical packages required for computational statistics
- show an ability to conduct surveys
- have developed a sense of critical statistical reasoning
- build the necessary confidence in working independently

PART I - Regulations

D. General Entry Requirements

As per UTM's Admission Regulations, and Admission to Programmes of Study at Degree Level or APL/APEL requirements.

E. Programme Entry Requirements

EITHER

At least a grade B in ASqLevel in Mathematics

OR

At least a grade B in ASqLevel Mathematics

F. Programme Mode and Duration

Full Time: Minimum 3 Years, Maximum 6 Years (Minimum 6 Semesters, Maximum 12 Semesters)

Part Time: Minimum 4.5 Years, Maximum 7.5 Years (Minimum 9 Semesters, Maximum 15 Semesters)

G. Teaching and Learning Strategies

- Lectures, Tutorials, Practical Laboratory Sessions and Self-Development Activities;
- Class Tests, Assignments and Dissertation/Projects;
- Structured Discussions and Self-Directed Study;
- Workshops and Seminars;
- Case Study of Real World Problems;
- Work Placement.

H. Student Support and Guidance

Each cohort of the programme is allocated a Programme Coordinator who acts as a liaison between the students and school management and provides support for academic management of the programme.

I. Attendance Requirements

As per UTM's Regulations and Policy

J. Credit System

This programme is aligned with the European Credit and Transfer System (ECTS).

One module will carry 150 hours of learning comprising of 45 hours of delivery which would be any combination of face-to-face, blended, online, seminar, workshop or joint session. The remaining 105 hours will cover self-learning, self-study, guest lecture, etc.

For the award of

- a Certificate, a minimum of 60 credits are required;
- a Diploma, a minimum of 120 credits are required;
- an Honours Degree, 180 credits are required.

K. Student Progress and Assessment

The programme is delivered mainly through lectures (L), tutorials (T), and practical (P) laboratory sessions. Students are expected to be as autonomous and research oriented as possible, and self-development (SD) activities may include reading, writing reports, delivering presentations, taking part in quizzes, case-studying amongst others. Each module carries 100 marks and unless otherwise specified will be assessed as follows:

- Written and/or practical examination, and coursework carrying between 30% - 40% of total marks.
- Coursework must consist of at least one class test and may also include assignments, field study, workshops and practical tests.
- The module Life Skills and Good Practices will be assessed by 100% coursework. The coursework must consist of at least one class test and at least one assignment.

Module grading structure:

Grade	Marks x (%)	Remarks
A	$70 \leq x < 100$	Excellent
B	$60 \leq x < 70$	Very Good
C	$50 \leq x < 60$	Good
D	$40 \leq x < 50$	Satisfactory
F	$x < 40$	Referred

L. Evaluation of Performance

1. The % mark at Level 1 contributes a 20% weighting towards the degree classification.
2. The % mark at Level 2 contributes a 30% weighting towards the degree classification.
3. The % mark at Level 3 contributes a 50% weighting towards the degree classification.

M. Award Classification

Overall weighted mark y (%)	Classification
$70 \leq y < 100$	First Class with Honours
$60 \leq y < 70$	Second Class First Division with Honours
$50 \leq y < 60$	Second Class Second Division with Honours
$45 \leq y < 50$	Third Class with Honours
$40 \leq y < 45$	Pass
$y < 40$	No Award

N. Programme Organisation and Management

Programme Director: Dr Kumar Dookhitram

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- Telephone Number: 207 52 50 (Ext. 306)
- Email: kdookhitram@umail.utm.ac.mu

PART II - Programme Structure

O. BSc (Hons) BUSINESS STATISTICS – Full Time (Version 2.0)

YEAR 1 (Level 1)							
Semester 1				Semester 2			
Code	Modules	Hrs/Wk L/T/P+SD	Credits	Code	Modules	Hrs/Wk L/T/P+SD	Credits
MATH 1305C	<i>Calculus Fundamentals</i>	3 + 7	6	MATH 1306C	<i>Matrices and Advanced Calculus</i>	3 + 7	6
ECON 1104C	<i>Business Economics</i>	3 + 7	6	STAT 1206C	<i>Multivariate Statistics</i>	3 + 7	6
STAT 1202C	<i>Statistics Essentials</i>	3 + 7	6	STAT 1207C	<i>Statistical Reasoning</i>	3 + 7	6
ACCF 1101C	<i>Accounting</i>	3 + 7	6	STAT 1308C	<i>Statistical Process Control</i>	3 + 7	6
COMP 1103C	<i>Statistical Computing I</i>	3 + 7	6	COMP 1104C	<i>Data Analysis and Visualization</i>	3 + 7	6
YEAR 2 (Level 2)							
Semester 1				Semester 2			
Code	Modules	Hrs/Wk L/T/P+SD	Credits	Code	Modules	Hrs/Wk L/T/P+SD	Credits
STAT 1203C	<i>Statistical Models</i>	3 + 7	6	STAT 2310C	<i>Business Forecasting</i>	3 + 7	6
STAT 2208C	<i>Marketing Research</i>	3 + 7	6	MATH 2310C	<i>Management Science I</i>	3 + 7	6
MGMT 1103C	<i>Management Principles</i>	3 + 7	6	STAT 2311C	<i>Stochastic Models</i>	3 + 7	6
MATH 2309C	<i>Numerical Linear Algebra</i>	3 + 7	6	UTM 2101	<i>Life Skills and Good Practices</i>	3 + 7	6
STAT 2309C	<i>Design and Analysis of Industrial Experiments</i>	3 + 7	6				
PROJ 2119C	<i>Work Placement (During Semester Break)</i>						6
YEAR 3 (Level 3)							
Semester 1				Semester 2			
Code	Modules	Hrs/Wk L/T/P+SD	Credits	Code	Modules	Hrs/Wk L/T/P+SD	Credits
STAT 3313C	<i>Data Mining for Business Intelligence</i>	3 + 7	6	STAT 3316C	<i>Machine Learning</i>	3 + 7	6
COMP 3105C	<i>Statistical Computing II</i>	3 + 7	6	MATH 3311C	<i>Management Science II</i>	3 + 7	6
STAT 3314C	<i>Bayesian Inference and Decision Makings</i>	3 + 7	6	QFIN 2104C	<i>Investment Instruments and Analysis</i>	3 + 7	6
STAT 3315C	<i>Panel Data and Spatial Econometrics</i>	3 + 7	6	STAT 3307C	<i>Actuarial Regression Models</i>	3 + 7	6
PROJ 3110C	<i>Project</i>						12

P. BSc (Hons) BUSINESS STATISTICS – Part Time (Version 2.0)

YEAR 1							
→ <i>Start of Level 1</i>							
<i>Semester 1</i>				<i>Semester 2</i>			
Code	Modules	Hrs/Wk L/T/P+SD	Credits	Code	Modules	Hrs/Wk L/T/P+SD	Credits
MATH 1305C	<i>Calculus Fundamentals</i>	3 + 7	6	ACCF 1101C	<i>Accounting</i>	3 + 7	6
STAT 1202C	<i>Statistics Essentials</i>	3 + 7	6	STAT 1206C	<i>Multivariate Statistics</i>	3 + 7	6
ECON 1104C	<i>Business Economics</i>	3 + 7	6	MATH 1306C	<i>Matrices and Advanced Calculus</i>	3 + 7	6
COMP 1103C	<i>Statistical Computing I</i>	3 + 7	6				
YEAR 2							
				→ <i>Start of Level 2</i>			
<i>Semester 1</i>				<i>Semester 2</i>			
Code	Modules	Hrs/Wk L/T/P+SD	Credits	Code	Modules	Hrs/Wk L/T/P+SD	Credits
STAT 1308C	<i>Statistical Process Control</i>	3 + 7	6	STAT 2208C	<i>Marketing Research</i>	3 + 7	6
COMP 1104C	<i>Data Analysis and Visualization</i>	3 + 7	6	STAT 1203C	<i>Statistical Models</i>	3 + 7	6
STAT 1207C	<i>Statistical Reasoning</i>	3 + 7	6	MGMT 1103C	<i>Management Principles</i>	3 + 7	6
End of Level 1 →							
YEAR 3							
<i>Semester 1</i>				<i>Semester 2</i>			
Code	Modules	Hrs/Wk L/T/P+SD	Credits	Code	Modules	Hrs/Wk L/T/P+SD	Credits
MATH 2309C	<i>Numerical Linear Algebra</i>	3 + 7	6	MATH 2310C	<i>Management Science I</i>	3 + 7	6
STAT 2309C	<i>Design and Analysis of Industrial Experiments</i>	3 + 7	6	STAT 2311C	<i>Stochastic Models</i>	3 + 7	6
STAT 2310C	<i>Business Forecasting</i>	3 + 7	6	UTM 2101	<i>Life Skills and Good Practices</i>	3 + 7	6
PROJ 2119C	<i>Work Placement (During Semester Break)</i>						6
				End of Level 2 →			

YEAR 4							
→ <i>Start of Level 3</i>							
<i>Semester 1</i>				<i>Semester 2</i>			
Code	Modules	Hrs/Wk L/T/P+SD	Credits	Code	Modules	Hrs/Wk L/T/P+SD	Credits
STAT 3313C	<i>Data Mining for Business Intelligence</i>	3 + 7	6	STAT 3316C	<i>Machine Learning</i>	3 + 7	6
COMP 3105C	<i>Statistical Computing II</i>	3 + 7	6	MATH 3311C	<i>Management Science II</i>	3 + 7	6
STAT 3314C	<i>Bayesian Inference and Decision Makings</i>	3 + 7	6	QFIN 2104C	<i>Investment Instruments and Analysis</i>	3 + 7	6
STAT 3315C	<i>Panel Data and Spatial Econometrics</i>	3 + 7	6	PROJ 3110C	<i>Project</i>	-	-

YEAR 5			
<i>Semester 1</i>			
Code	Modules	Hrs/Wk L/T/P+SD	Credits
STAT 3307C	<i>Actuarial Regression Models</i>	3 + 7	6
PROJ 3110C	<i>Project</i>	-	12
End of Level 3 →			