



# Introductory Statistics Module Outline BUS132

## 2nd Semester 2023

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## **Part A: General Information**

Welcome to the Department of Statistics and Population Studies. This is an Introductory Statistics course servicing the Economics and Management Science Faculty. We hope that you will enjoy this field of study and that you will achieve success with your attempt. Please make use of this guide to success to obtain excellent results!! It is your responsibility to ensure that you are registered properly for this course.

## **Teaching Staff**

#### **Coordinator and Lecturer**

Name	Mrs. Chanel Morkel (Group 5)
Email	cmorkel@uwc.ac.za
Office	1.79 CAMS Building

#### **Lecturing Staff**

Name	Mr. Abduraghiem Latief (Group 4)	
Email	alatief@uwc.ac.za	
Office	1.89 CAMS Building	

Name	Mrs. Ronell Lombard Jacobus (Group 3)
Email	rlombard@uwc.ac.za
Office	1.81 CAMS Building

Name	Mr. Matthew Valentine
Email	mvalentine@uwc.ac.za
Office	Tech Room, Lab K2, CAMS Building

Name	Mr. Fallo Khanye
Email	3653309@uwc.ac.za
Office	Tech Room, Lab J, CAMS Building

#### **EMS Contact:**

Name	Mrs. Marilyn Engel
Room and building	Office 2.03 – 2 <sup>nd</sup> floor EMS Building
Phone number	+21 959 3760 or +21 959 2098
Email	mengel@uwc.ac.za
Consultation hours	Please email her regarding Faculty queries.

#### **Lecturer Consultation Times:**

Student consultation with a lecturer may occur during these periods or times on campus in the lecturer's office or in a pre-determined venue. Please consult with your lecturer about the location of these consultation sessions ahead of time.

BUS132 Lecturer Consultation Times (Semester 2_2023)				
<b>Lecture Group</b>	Lecturer	Day	Periods/Times	
1	Mr Matthew Valentine	Monday	3, 4, 5	
1	Wil Matthew Valentine	Tuesday	3, 4, 5	
		Monday	6	
2	Mr Fallo Khanye	Tuesday	3,4	
		Friday	2,3,4	
		Monday	12h30 to 13h30	
3	Mrs Ronell Lombard Jacobus	Wednesday	10h30 to 12h30	
		Thursday	14h00 to 15h00	
		Monday	15h30 to 16h30	
4	Mr Abdurahgiem Latief	Thursday	15h30 to 16h30	
		Friday	14h30 to 16h30	
5	Mrs Chanel Morkel	Tuesday	3, 4, 5	
	IVITS CHARLET IVIOTRE	Wednesday	3, 4, 5	

#### **Tutorial Times:**

Tutorials are compulsory to attend since it will be face-to-face during lunch either on a Wednesday or on a Thursday. Please check your official timetable to see which tutorial group you belong to. You should only attend one tutorial period per week for this module. Then review this tutorial timetable to see the day, time and venue of your tutorial. You do not need

BUS132 Tutorial Timetable 2023				
Wednesday lunch		Thursday lunch		
Tut Group Venue		<b>Tut Group</b>	Venue	
1	C9	4	SC5	
2	A18	5	C9	
3	В3	8	GH3	
6	SC1	9	D13	
7	SC2			

to sign up for these tutorials since you were automatically assigned when you registered. Tutorial sizes are large, so please stick to the current tutorial group you have on your official timetable. Should you have any clashes with your tutorials, please see the coordinator, Mrs Morkel, as soon as possible.

#### Lecture Timetable:

Lectures are face-to-face according to your official timetable. Please check to make sure you are attending the correct lecture group venue. There are four weekly lecture periods which are compulsory to attend. Should you have lecture group clashes please see your EMS Faculty office to correct those errors on your timetable.

	BUS 132 Face-to-Face Lecture Timetable 2023					
Period	Time	Monday	Tuesday	Wednesday	Thursday	Friday
1	08:30 to 09:15	Group 1 L20		Group 5 DL1		Group 2 SC1
2	09:25 to 10:10		Group 5 GH1	Group 4 SC3	Group 2 SC1	
3	10:20 to 11:05	Group 2 SC6	Group 4 SC5		Group 3 A2	Group 1 L20
4	11:15 to 12:00	Group 3 A1			Group 4 DL1	
5	12:10 to 12:55		Group 3 B1	Group 1 L20	Group 5 GH1	
Lunch	12:56 to 13:59			Tut Groups 1, 2, 3, 6, 7	Tut Groups 4, 5, 8, 9	
6	14:00 to 14:45	Group 4 SC3	Group 2 A1			
7	14:55 to 15:40	Group 5 GH1	Group 1 L20	Group 3 B1		

#### **Module Overview**

The key focus or purpose of this module	Introduce students to Statistics, to recognise the importance of Statistics in both private and public sectors, data summaries (e.g. mean and standard deviation), perform simple statistical analysis and use a computer to analyse data.
How this module relates to	This module is an entry level course which uses basic
previously studied modules	mathematical tools learnt at secondary school. Some
	concepts may be new while others are known.
How this module prepares	This full time module is a service level course for the
students for subsequent modules	Faculty of Economics and Management Sciences (EMS). It provides a sound statistical foundation to the student who wishes to continue with second year Statistics (provided they successfully complete first year Mathematics) as well as the student who continues with business related modules (Economics, Accounting, Finance, etc.).
How this module relates to the degree/discipline/ programme(s)	This module will enable the student to use the basic statistical tools learnt and apply them to their business environment.

**Current Module Descriptor** 

150 Assignments	s, tutorials and test	rs: 60%
150		
		1
64		
	Tutorials p.w.	1
20	•	
	<u>'</u>	4
Hours B. Time-table Requirement per week		
STA 111/121/125/141/142/151/BUS132		
None		
QSC131/132/MAM126/QSA131		
<ul><li>Index numbers</li><li>Time series</li><li>Chi-square</li><li>Anova</li></ul>		
<ul> <li>Descriptive statistics</li> <li>Simple linear regression analysis</li> <li>Probability</li> <li>Sampling distributions</li> <li>Inferential Statistics</li> </ul>		
<ul> <li>Recognize the importance of statistics in both private and public sectors</li> <li>Summarize data into summary measures (e.g. mean and standard deviation)</li> <li>Do simple statistical analysis</li> <li>Use a computer to analyze data</li> </ul>		
5		
All B.Com pro	ogrammes	
Second seme	ester	
Semester		
15		
BUS132		
Business statistics 132		
	Business state BUS132 15 Semester Second seme All B.Com pro 5  Recognand pro Summean Do sir Use ar Descr Simpl Probar Samp Infere Index Time: Chi-so Anova QSC131/132 None STA 111/121 Hours 56 20	Introductory Statistics Business statistics 132 BUS132 15 Semester Second semester All B.Com programmes 5  Recognize the importance and public sectors Summarize data into summean and standard devia Do simple statistical analy Use a computer to analyz  Descriptive statistics Simple linear regression and Probability Sampling distributions Inferential Statistics Index numbers Time series Chi-square Anova  QSC131/132/MAM126/QSA131 None STA 111/121/125/141/142/151/B Hours B. Time-table Required Lectures p.w. 20 Practical's p.w Tutorials p.w.

## Part B: Teaching and Learning

## **Teaching and Learning Objectives**

## Students are expected to:

- Visit iKamva every day to see what new material has been added;
- Go through the weekly schedule to plan ahead;
- Read and summarise each chapter (from chapter 1 to 13) every week;
- Attend face-to-face lectures;
- Attend and complete weekly tutorials for submission;

- Complete online tests (on iKamva);
- Complete and submit the two individual EXCEL based take home assignments on time (one per term);
- Complete the two in person term tests (one per term);

## **Teaching and Learning Materials**

#### **Prescribed Text**

Introductory Statistics. The course reader is available for purchase from the department at a cost of R150 for printing. Find the course reader purchase form at the end of this course outline to complete. Take only the completed form to the cashiers in the Admin building to pay for the course reader. Take your completed form plus the payment receipt to the Statistics and Population Studies department, Study Hub 3 in the CAMS building to collect your printed course reader. The collection times are on the course reader forms.

#### **Lecture Presentations**

Lecture presentations and additional resources such as exercises can be found on iKamva under the BUS132\_2023 site. In order to access this site, you have to be officially registered for this module. You can download these presentations to bring along to the lecture venues. It is always helpful to read through the chapters before class to give yourself some background and then participate more actively in class.

#### **Recommended Calculators**

Sharp EL 531VH Casio FX 82ES Or equivalent

#### Recommended Additional Text Books (not compulsory)

Most basic or introductory statistics books can be used for extra reading. Here are four books that are available in the main library with their respective location and shelf number.

- 1. Basic and clinical biostatistics by B. Dawson-Saunders & R.G. Trapp (Level 14, 519.502461DAW)
- 2. Statistics for management and economics by G. Keller & B. Warrack (Level 12, 519.5KEL)
- 3. Mathematical statistics with application by D.D. Wackerly, W. Mendenhall & R.L. Scheaffer (Level 14, 519.5WAC)
- 4. Introduction to business statistics by R.M. Weiers (Level 5, 519.5WEI)

#### iKamva

Please consult iKamva (<a href="https://ikamva.uwc.ac.za/portal">https://ikamva.uwc.ac.za/portal</a>) every day for details pertaining to the course such as notices, lecture material, additional notes and/or exercises that you can download and work through in your own time. Announcements via email will be sent out to your student email address via this platform, so check your student email everyday as well.

## **Teaching and Learning Activities**

The normal mode of teaching consists of four face-to-face lectures (as per your lecture group number) and one practical tutorial period per week (as per your tutorial group number). Weekly tutorial practicals will be designed with guided exercises assisted by tutors during which one question must be submitted for grading. Students will also participate in five online tests which will draw attention to theory, calculation and interpretation type questions, asked in a multiple-choice question (MCQ) format. At the end of each term, a main test will be written under exam conditions in venues on campus to be disclosed closer to the test date. Two individual, written, take home, Excel assignments will also be expected for submission and grading. All these activities are structured in such a way as to give the student a blended learning experience by using different formats and methods for assessment while incorporating Excel, PowerPoint, Word and online platforms. At the end of the semester, a sit-down exam will be the final summative assessment in MCQ format.

## **Types of Assessments**

Online Tests, Written Term tests, and Written Take Home Excel Assignments are compulsory. There is also a mandatory final exam. Your CAM will count 60% and your exam will count 40%.

Semester mark: 40% average of the two term tests

20% average of the two written take home Excel assignments

20% average of the online tests (best 4 of 5)
20% average of the weekly tutorials (best 6 of 8)

## **Description and Explanation of Assessments**

#### Weekly tutorials

• Develop skills in formulation of written questions in terms of formulae, substitution, calculation and interpretation.

#### Online Tests (MCQ format)

- Understand statistical theory.
- Develop understanding and calculation skills of basic statistics.
- Interpret the results of basic statistical calculations.
- Preparation for online term tests.

#### **Written Take Home Excel Assignments**

- Develop understanding and calculation skills of basic statistics using Excel.
- Interpret the results of basic statistical calculations.
- Develop skills for report writing.

## **Additional Assessment Information**

#### **Feedback**

Feedback for written tutorials and take-home Excel assignments will be available two or three weeks after submission. Time needs to be given for marking large numbers of papers. Collection of marked scripts can be done in the Study Hub 3 during specified times, which will be communicated to you by your tutors and by an announcement via iKamva to your

student email. Queries will then be open for 5 days after marks (in Gradebook on iKamva) are made available to students. Mark queries should be sent directly (either by email or in person) to the coordinator, Mrs Morkel (see page 2).

#### **Late Penalties**

Absolutely **NO late submissions** will be accepted for grading.

## **Special Consideration and Additional Assessments**

Two medical tests have been scheduled to be written after each Term test. Only students that handed in a sick certificate or appropriate official documents for missing any of the two tests will be allowed to write the sick test/s. Refer to the General UWC Calendar about rules regarding special/sick exams, Continuous Assessment, Pass Requirements and Reevaluation.

## **Course Evaluation of Learning and Teaching**

This module will be evaluated by students who will complete an anonymous Google Form questionnaire at the end of the semester. Student comments will also be collated and summarized to improve the presentation of the module in future.

#### **Graduate Attributes, Learning Outcomes and Assessments**

Graduate Attributes, Learning Outcomes and Assessments							
UWC Graduate Attributes	Learning outcomes	Teaching/Learning activities	Assessment tasks and criteria				
	Understand and use descriptive and inferential statistics.	Class discussion In-class exercises	T1	Tutorial questions			
Inquiry focused (Researching)	Solve quantitative statistical problems.	Pre-reading and preparation Self-study exercises Tutorial exercises	Tests and exam questions				
	Reading with understanding;		Tests and exam questions	Tutorial questions			
Critically and	Develop a sound statistical foundation.	Multiple choice questions Tutorial exercises					
relevantly literate (Solving problems)	Apply statistical tools to business scenarios.	Reading and writing tasks Computer skills					
	Use the Internet, MS Word and MS Excel.		Take-home exercise				
Ethically, environmentally and socially aware and active	Discuss ethical requirements when using data	Class discussion	Take-home exercise				
Autonomous and collaborative	Begin to develop life-long learning capabilities and to see one's discipline in a wider context.	Reading and writing tasks	Take-home exercise				
Skilled communicators	Present clear, well-structured statistical calculations, analyses and interpretations	Develop statistical skills	Tests and exam questions	Tutorial guestions			
Interpersonal flexibility and confidence to engage across difference	Work productively in co-operative learning groups	Group discussions	Take-home exercise				

## **Planned Semester Schedule**

This is the planned schedule for the semester. Dates are put in place to help you manage your time and give you an overview of what is expected in this module. Please note that dates may change due to unforeseen circumstances, but we hope to follow this plan as far possible. This schedule can also be found on iKamva (BUS132) under course resources.

			В	JS132 Semester 2 Schedul	e 2023		
Week	Dates	Ch	Lectures Topic	Face-to-face Tutorials  Wed (lunch)  OR  Thur (lunch)  Submit only Q2 during the tut period for grading 20% of CAM	Online MCQ Tests On iKamva Opens at 8AM Closes at 11PM Multiple submissions Best mark per test used 20% of CAM	Excel Assignments Individual submission Submit on iKamva On the Assignment tab Only 1 submission Excel work 20% of CAM	Term Tests Sit-down MCQ Tests (Theory, Calculations, Interpretation) Only 1 submission In Test Venue 40% of CAM
Wk 1	24 - 28 Jul	0 1 2	Welcome Introduction (Self-Study: Pre-recorded lecture and slides on iKamva) Graphical representation of Data	(Average best 6 of 8)  No tuts	(Average best 4 of 5)	(Average of both)	(Average of both)
Wk 2	31 - 4 Aug	2	Graphical representation of data Measures of location and dispersion	Ch 1 (2 questions) Submit only Q2 (10 marks)			
Wk 3	7 - 11 Aug 9th: Public Holiday	3	Measures of location and dispersion	Ch 2 (2 questions) Submit only Q2 (10 marks)	Test 1 (Fri, 11 Aug) Ch 1 + 2 20 marks (2 hours)		
Wk 4	14 - 18 Aug	4	Probability counting methods	Ch 3 (2 questions) Submit only Q2 (10 marks)			
Wk 5	21 - 25 Aug	4	Probability of an event	Ch 4 (2 questions) No submission	Test 2 (Fri, 25 Aug) Ch 3 + 4 20 marks (2 hours)	Assignment 1 (Excel) Ch 1 + 2 + 3 Due: Mon, 21 Aug @ 23:59 via iKamva	
Wk 6	28 - 1 Sept	5 6	Distribution of random variables Sampling distributions and estimation	Ch 4 (2 questions) Submit only Q2 (10 marks)			
	4 - 8 Sept			Vacatio	n Week		
Wk 7	11 - 15 Sept	7	Interval Estimation	Ch 5 (2 questions) Submit only Q2 (10 marks)	Test 3 (Fri, 15 Sept) Ch 5 + 6 20 marks (2 hours)		Term Test 1 (Ch 1 - 5) Fri, 15 Sept @ 14h30
Wk 8	18 - 22 Sept	8	Hypothesis testing	Ch 7 (2 questions) Submit only Q2 (10 marks)			
Wk 9	26 - 29 Sept 25th: Public Holiday	9	Correlation & Regression	Ch 8 (2 questions) Submit only Q2 (10 marks)	Test 4 (Fri, 29 Sept) Ch 7 + 8 20 marks (2 hours)		
Wk 10	2 - 6 Oct	10	Analysis of Variance	Ch 9 (2 questions) No submission		Assignment 2 (Excel) Ch 7 + 8 + 9 Due: Mon, 2 Oct @ 23:59 via iKamva	
Wk 11	9 - 13 Oct	11	Chi-square test	Ch 10 (2 questions) Submit only Q2 (10 marks)			Term Test 2 (Ch 6 - 10) Sat, 14 Oct @09h30
Wk 12	16 - 20 Oct		Index Numbers (Self-Study: Pre- recorded lecture and slides on iKamva) Time Series	No tuts	Test 5 (Mon, 16 Oct) Ch 9 + 10 + 11 (20 marks = 2 hours)		Med Test (Ch 3 - 11) Fri, 20 Oct @ 14h30
Wk 13	23 + 24 Oct			No tuts			

## Part C: Academic honesty

Please adhere to UWC rules regarding academic honesty as described in the General UWC Calendar.



## FIRST YEAR COURSE READER PURCHASE FORM 2023

#### **Process:**

- 1. Please present this completed form to the UWC cashier.
- 2. Pay for the course reader(s).
- 3. Collect the receipt from the cashier.
- 4. Come to the Statistics and Population Studies Department (CAMS Building STUDY HUB 3) WITH THE RECEIPT AND THIS COMPLETED FORM to collect your course reader from Ms S Bhosale.

Name:
Student number:
Course reader name: Introductory Statistics
Module Code:
Course reader Price : ZAR R150.00
Number of course readers purchased:
Entity number: GB0900007
Account number: 550103

Reason/Reference : FIRST YEAR READER

\*Please note that course readers are available for pick-up on Mondays, Wednesdays and Thursdays from 11:00 to 14:00 at the Statistics and Population Studies Department – STUDY HUB 3 – CAMS BUILDING. Do not forget your receipt!