MATH 0029 STATISTICS FOR ACADEMIC PURPOSES (WSTC)

Credit Points 5

Legacy Code 900011

Coordinator Michael Casey (https://directory.westernsydney.edu.au/search/name/Michael Casey/)

Description Understanding, creating and working with statistics are fundamental skill requirements in many areas and career pathways within the arts, business, science and the humanities disciplines. This subject will provide students with a comprehensive overview of statistics in order to prepare them for success in first year university subjects of study where they will further develop their skills. Through both individual and group tasks students will use statistics to organize and display data as well as draw valid inferences, based on data, by using appropriate statistical tools.

School Western Sydney The College

Discipline Statistics

Student Contribution Band HECS Band 1 5cp

Check your fees via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Undergraduate Level 0 Preparatory subject

Equivalent Subjects MATH 0028 Statistics for Academic Purposes (WSTC Prep)

Restrictions Students must be enrolled in a Western Sydney University The College Foundation Studies program.

Assumed Knowledge

Year 10 Mathematics or equivalent.

Learning Outcomes

On successful completion of this subject, students should be able to:

1. Demonstrate an understanding of the statistical terminology and use the correct notation.
2. Collect, organise and display data.
3. Calculate descriptive characteristics and describe data sets.
4. Calculate and describe the relationship between two variables and use simple linear regression to predict or estimate values.
5. Calculate probabilities.
6. Apply appropriate statistical methods to analyse data and make inferences.
7. Use computer software to display and analyse data.

Subject Content

1. Statistical terminology and methods of collecting data.
2. Organising and displaying data.
3. Measures of central tendency, variation, and spread.
4. Correlation and simple linear regression.
5. Probability.
6. Binomial distribution.
7. Normal distribution.
8. Sampling distribution.
9. Estimation.
10. Hypothesis testing.

Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Type	Length	Percent	Threshold	Individual/ Group Task	Mandatory
Class Test 1	1 hour	20	N	Individual	
Report: Part A		10	N	Individual	
Report: Part B		25	N	Individual	
Report: Part C		5	N	Individual	
End of session Test	2 hours	40	N	Individual	

Prescribed Texts

- Brase, C, Brase, C 2018, Understanding Basic Statistics, 7th edn, Brooks/Cole, Cengage learning, Boston