

# MATH 0028 STATISTICS FOR ACADEMIC PURPOSES (WSTC PREP)

**Credit Points** 5

**Legacy Code** 700045

**Coordinator** Frank Gutierrez (<https://directory.westernsydney.edu.au/search/name/Frank Gutierrez/>)

**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/](https://www.westernsydney.edu.au/currentstudents/current_students/fees/)) page.

**Level** Undergraduate Level 0 Preparatory subject

**Equivalent Subjects** MATH 0029 - Statistics for Academic Purposes (UWSC)

**Restrictions** Students must be enrolled at Western Sydney University, The College.

**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	Mandatory Task
Intra-session Exam	1 hour	25	N	Individual	N
Report	Approximate 100 words plus tables and graphs	10	N	Individual	N
Report	Approximate 500 words plus statistical calculations	10	N	Group	N
Report	2-3 minutes per student approximately 8 minutes per group + 2 min question time	10	N	Individual	N

Intra-session Exam	25	N	Individual	N
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## Prescribed Texts

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

## Teaching Periods

## Term 2 (2025)

### Penrith (Kingswood)

#### On-site

**Subject Contact** Frank Gutierrez (<https://directory.westernsydney.edu.au/search/name/Frank Gutierrez/>)

View timetable ([https://classregistration.westernsydney.edu.au/odd/timetable/?subject\\_code=MATH0028\\_25-T2\\_KW\\_1#subjects](https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=MATH0028_25-T2_KW_1#subjects))