

# BLDG 0002 BUILDING CALCULATIONS (WSTC PREP)

**Credit Points** 10

**Legacy Code** 700318

**Coordinator** Robert Paluzzano ([https://directory.westernsydney.edu.au/search/name/Robert Paluzzano/](https://directory.westernsydney.edu.au/search/name/Robert%20Paluzzano/))

**Description** This unit is designed to assist students to become competent in the field of introductory senior mathematics. It introduces and reinforces mathematical skills in the areas of scale, application of scale, Pythagoras theory, trigonometry, sine and cosine, application of sine and cosine, building volumes, application of building volumes, gradients, application of gradients and thermal flow. Emphasis is placed on developing key competencies in building calculations.

**School** Western Sydney The College

**Discipline** Building Science and Technology

**Student Contribution Band** HECS Band 2 10cp

Check your HECS Band contribution amount 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 0027 - Scientific Methods in Construction Management

**Restrictions** Students must be enrolled at The College in 6031 - Diploma in Building Design Management / Bachelor of Building Design Management, 7136 - Diploma in Building Design Extended, 6045 - Diploma in Construction Technology/Bachelor of Construction Technology or 7165 - Diploma in Construction Technology Extended.

## Learning Outcomes

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

1. Apply Scale and ratios
2. Apply Pythagoras Theory
3. Solve Trigonometric Equations
4. Apply Sine and Cosine to building calculations
5. Apply Building Volumes to building calculations
6. Apply Gradients to building calculations
7. Develop preliminary knowledge of Thermal Flow

## Subject Content

Scale and Ratios  
 Pythagoras theory  
 Trigonometry  
 Sine and Cosine  
 Application of Sine and Cosine  
 Building volumes  
 Application of Building Volumes  
 Gradients  
 Application of Gradients  
 Thermal Flow  
 Scale and Ratios  
 Pythagoras theory  
 Trigonometry  
 Sine and Cosine  
 Application of Sine and Cosine

Building volumes  
 Application of Building Volumes  
 Gradients  
 Application of Gradients  
 Thermal Flow

## 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.

Item	Length	Percent	Threshold	Individual/Group Task
Intra-session Exam	1 hour	30	N	Individual
Intra-session Exam	1 hour	30	N	Individual
Intra-session Exam	90 minutes	30	N	Individual
Reflection	5 minutes + 2 minutes question time	10	N	Individual

Prescribed Texts

- Breach, M. 2011, Fundamentals Maths for Engineering and Science, Palgrave Macmillan

Teaching Periods

## Term 1 Penrith (Kingswood)

**Day**

**Subject Contact** Robert Paluzzano ([https://directory.westernsydney.edu.au/search/name/Robert Paluzzano/](https://directory.westernsydney.edu.au/search/name/Robert%20Paluzzano/))

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=BLDG0002\\_22-T1\\_KW\\_D#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=BLDG0002_22-T1_KW_D#subjects))

## Term 2 Penrith (Kingswood)

**Day**

**Subject Contact** Robert Paluzzano ([https://directory.westernsydney.edu.au/search/name/Robert Paluzzano/](https://directory.westernsydney.edu.au/search/name/Robert%20Paluzzano/))

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=BLDG0002\\_22-T2\\_KW\\_D#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=BLDG0002_22-T2_KW_D#subjects))