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# ENGR 3004 BIOMEDICAL SIGNALS AND DATA ANALYSIS

Credit Points 10

Legacy Code 301121

**Coordinator** Gaetano Gargiulo (https://directory.westernsydney.edu.au/ search/name/Gaetano Gargiulo/)

**Description** This unit will cover recent advances in biomedical signal and data analysis including electrocardiography, electroencephalography, human-computer-interface, electromyography, biomedical images and spikes processing. Topics covered span from basic to advanced signal processing. This unit will have a strong practical design focus with laboratories and tutorials focused on the design of usable software packages dealing with real biomedical signals.

School Eng, Design & Built Env

Discipline Biomedical Engineering

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/) page.

Level Undergraduate Level 3 subject

Pre-requisite(s) ELEC 2001 OR ENGR 2001

#### Assumed Knowledge

Basic programming skills.

# 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.

| ltem                 | Length                       | Percent | Threshold | Individual/<br>Group Task |
|----------------------|------------------------------|---------|-----------|---------------------------|
| Professional<br>Task | 3<br>submissions<br>required | 50      | Ν         | Individual                |
| Practical<br>Exam    | 2 hours                      | 50      | Ν         | Individual                |

**Teaching Periods** 

# Sydney City Campus - Term 1 Sydney City Day

Subject Contact Peter Lendrum (https:// directory.westernsydney.edu.au/search/name/Peter Lendrum/)

View timetable (https://classregistration.westernsydney.edu.au/even/ timetable/?subject\_code=ENGR3004\_22-SC1\_SC\_D#subjects)

# **Spring** Penrith (Kingswood)

### Day

Subject Contact Gaetano Gargiulo (https:// directory.westernsydney.edu.au/search/name/Gaetano Gargiulo/)

View timetable (https://classregistration.westernsydney.edu.au/even/ timetable/?subject\_code=ENGR3004\_22-SPR\_KW\_D#subjects)

### Parramatta - Victoria Rd

### Day

Subject Contact Gaetano Gargiulo (https:// directory.westernsydney.edu.au/search/name/Gaetano Gargiulo/)

View timetable (https://classregistration.westernsydney.edu.au/even/ timetable/?subject\_code=ENGR3004\_22-SPR\_PS\_D#subjects)

# Sydney City Campus - Term 3 Sydney City Day

Subject Contact Peter Lendrum (https:// directory.westernsydney.edu.au/search/name/Peter Lendrum/)

View timetable (https://classregistration.westernsydney.edu.au/even/ timetable/?subject\_code=ENGR3004\_22-SC3\_SC\_D#subjects)