# 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 subject 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 subject 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.

Туре	Length	Percent	Threshold	Individual/ Group Task
Professional Task	3 submissions required	50	N	Individual
Practical Exam	2 hours	50	N	Individual

Teaching Periods

# **Sydney City Campus - Term 1 (2022)** 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 (2022)**

### Penrith (Kingswood)

Dav

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

Dav

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 (2022) 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)

### Sydney City Campus - Term 2 (2023) Sydney City

On-site

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

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject\_code=ENGR3004\_23-SC2\_SC\_1#subjects)

### **Spring (2023)**

#### Penrith (Kingswood)

On-site

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

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject\_code=ENGR3004\_23-SPR\_KW\_1#subjects)

### Parramatta City - Macquarie St

On-site

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

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject\_code=ENGR3004\_23-SPR\_PC\_1#subjects)

# Sydney City Campus - Term 3 (2023) Sydney City

On-site

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

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject\_code=ENGR3004\_23-SC3\_SC\_1#subjects)