

Pacific Biomedical Network Meeting





College of Engineering, Science & Technology (CEST)

School of Electrical and Electronics Engineering (SEEE)

Department of Electronics Engineering Presenter:

OUR VISION

To be the leading dual-sector university in the Pacific.

OUR MISSION

To serve the people, the economy, and society of Fiji and the wider Pacific region, by providing education and training for employability, with an excellent student experience; carrying out research with real-world impact, aligned to national priorities and with global relevance; engaging proactively with stakeholders, in our communities, nation and region; and demonstrating leadership in sustainability.

OUR VALUES

Care
for ourselves and each other

Honesty
in the spirit of continuous improvement

Accountability
to our students, stakeholders and funders

Service
to our communities, nation and region

Excellence
in everything we do

OUR FOCUS

- ✦ Education for Employability
- ✦ Research with Real-World Impact
- ✦ Student Experience
- ✦ Financial Sustainability



FIJI NATIONAL
UNIVERSITY

Care | Honesty | Accountability | Service | Excellence



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 www.fnu.ac.fj

"Registered with the Fiji Higher Education Commission as a University under the Higher Education Act 2008.
Registration Certificate Number RC 0050".



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FNU Overview

Colleges & Centres

- College of Agriculture, Fisheries & Forestry
- College of Business, Hospitality & Tourism Studies
- College of Engineering, Science & Technology
- College of Humanities & Education
- College of Medicine, Nursing and Health Sciences
- National Training and Productivity Centre
- Fiji Maritime Academy

- A ‘**dual sector**’ university, offering technical and vocational education and training (TVET) and higher education, from certificates to doctorates.
- Operates in various campuses & locations in Fiji.
- Total student number of about 30,000
- ❖ Our focus “*To provide education and training which is aimed at **employability***”

FNU Qualification Framework

TVET

- Hands on or Job Specific Skills
- Competency Based Training
- Experience is important
- Adaptive (creative) skills

- ❑ Certificate level 3 Programmes
- ❑ Certificate level 4 Programmes

HE

- Education with learning
- Research, Simulation & Analysis
- Design & innovation
- New knowledge

- ❑ Diploma Programmes
- ❑ Degree Programmes
- ❑ Master and PhD Programmes

Registration - Fiji Higher Education Commission's (FHEC)
ENZ accreditation (selected diploma Programmes)

FNU CEST PROGRAMME STRUCTURE

Programme	Levels	Total Credit Points	Duration	Units per quarter/semester
Certificate Level 3	3	90	3 quarter + 6 months industrial attachment (quarter-based)	6 units (@5 CPs each)
Certificate Level 4	4	120	4 quarter + 12 months industrial attachment (quarter-based)	6 units (@ 5 CPs each)
Diploma	6	360	2.5 years + 6 months industrial attachment (semester-based)	5 units (@ 12 CPs each)
Bachelors (Honours)	8	480	4 years + 6 months industrial attachment (semester-based)	4 units (@ 15 CPs each)

CEST Schools and Programmes

The College comprises of a total of six Schools:

- ❖ School of Building & Civil Engineering
- ❖ School of Electrical & Electronics Engineering
- ❖ School of Mechanical Engineering
- ❖ School of Sciences
- ❖ School of Mathematical & Computing Science and
- ❖ School of Transport

Certificate in Biomedical Engineering (Level 4)

Offered by	School of Electrical & Electronics Engineering
Programme Description	<p>The main purpose of this programme is to prepare students for employment in Certificate level four occupations specializing in trade level biomedical engineering work in hospitals or biomedical engineering technology industries. The programme is directed towards occupations with typical job titles such as Biomedical trade's person and assistant technician. The programme aims to provide a broad-based, initial vocational Programme for the technical workforce, specializing in Biomedical Engineering technology.</p>
Entry requirement	Pass in Year 12 Certificate Examination equivalent with a pass in English
Campus	Samabula

Quarter 1	Quarter 2
EEC301 Electrical Calculations I	EEC306 Electrical Principles II
EEC302 Electrical Principles I	EEC307 Workshop Practice II
EEC303 Workshop Practice I	EEC308 Analog Electronics I
ETH301 Introduction to Ethical Practices	EEC362 Electronic Communication Systems 1
EEC305 Electrical Measurement and Components	EEC309 Digital Electronics I
COM303 Introduction to Communication Literacy	OHS303 Occupational Health & Safety
Quarter 3	Quarter 4
ACR498 Refrigeration Principles	EEC471 Electronic Biomedical Materials and Device
BMT442 Introduction to Human Biology & Infection Control	BMT474 Medical Imaging Processing
EEC498 Network Fundamentals	EEC426 Programmable Logic Controller
EEC447 Microcontroller Applications	EEC492 Electronic Biomedical Instrumentation
EEC451 Introduction to Mechatronics	EEC466 Introduction to Bioinformatics
PME442 Hydraulics & Pneumatics 1 (E)	EEC491 Biomedical Engineering Project

Industry Attachment of 12 months

PROGRESS AND ACHIEVEMENTS

Year	Enrollment numbers	Graduations
2019	4	-
2020	7	-
2021	10	-
2022	33	5
2023	24	

- Upgrade of Lab equipment
- Staff upgrade
- Dedicated biomedical lab
- Programme Review

CHALLENGES

- ❑ Biomedical staff
- ❑ Biomedical Trainers
- ❑ Setup of biomedical service center hub
- ❑ Development of Diploma level Programme

FUTURE DIRECTIONS

- ❑ Experience and master/Phd level Biomedical staff
- ❑ Updated Biomedical Trainers
- ❑ Setup of biomedical service center hub
- ❑ Review of certificate Programme with industry feedback
- ❑ Development of Diploma level Programme

Thank You
Any Questions