

**The National Polytechnic Institute
of
Papua New Guinea**

Department of Mechanical Engineering

Diploma in Mechanical Engineering

For further information contact:

The Head of Mechanical Engineering Department
The National Polytechnic Institute of PNG
PO Box 4366 LAE,
Morobe Province 411

Phone: (675) 472 2555 / 472 1508 / 472 7530

Fax: (675) 472 1025 or (675) 472 6693

Email: npi_hodme@datec.net.pg / polytec.acad.clerk@gmail.com

*"Enroll at National Polytechnic Institute of PNG for a brighter
future"*

Objectives:

The department seeks to attain technical competence in Mechanical Engineering, cultivate personal attitudes conducive to continual growth and provide a strong motivation to apply engineering solutions to human development problems.

Course Offered:

DIPLOMA IN MECHANICAL ENGINEERING (DME)

Objectives:

The course is aimed to:

- Equip graduates with sound technical knowledge and training in Mechanical Engineering relevant to the needs of the industries in PNG.
- Provide graduates with the necessary background in Engineering Management, Computing and Communication Skills needed in middle level management.
- Provide bridging for the Mechanical Engineering studies between National Polytechnic Institute and the PNG University of Technology.

Entry Requirements:

- Completion of Grade 12 (or equivalent) with B grade in Maths and Physics, and C grade in English, Chemistry and biology or relevant trade certificate with industrial experience.
- Completion of Grade 10 with Upper Pass or better in English, Mathematics and Science plus tradesman certificate.
- Completion of Technical Training Certificate in Metal Trades (TTC- Metal Trades).
- Completion of Pre-Employment Technical Training/Apprentice ship course.
- Other qualifications as recognized by the Board of Studies.

Course Duration:

The course is run for 20 weeks per stage for four stages done in two consecutive years.

Certification:

On successful completion of stage III students will be awarded **Certificate of Higher Technical Education in Mechanical Engineering** and on successful completion of stage IV students will be awarded **Diploma in Mechanical Engineering**.

Course Outline:

STAGE ONE:	Hrs/Wk	Credit
Mathematics I	6	12
Science I	6	12
Language Studies I	6	12
Engineering Drawing	4	8
Workshop Technology I	4	8
Introduction to Computing	4	8
<i>TOTAL</i>	<i>30 hrs</i>	<i>60 credits</i>
STAGE TWO:	Hrs/Wk	Credit
Mathematics II	4	8
Science II	5	10
Language Studies II	4	8
Drawing and Design I	4	8
Workshop Tech II	5	10
Engineering Materials	4	8
Energy Conversion	4	8
<i>TOTAL</i>	<i>30 hrs</i>	<i>60 credits</i>
STAGE THREE:	Hrs/Wk	Credit
Eng'g Management I	4	8

Mechanical Power Transmission	5	10
Material Handling	3	6
Electro-technology	5	10
Fluid Mechanics	4.5	9
Oil Hydraulics	4	8
Applied Thermodynamics	4.5	9
<i>TOTAL</i>	<i>30 hrs</i>	<i>60 credits</i>

STAGE IV:

	Hrs/Wk	Credit
Mathematics III	4	8
Ref. & Air conditioning	4	8
Language Studies III	4	8
Drawing and Design II	4	8
Strength of Materials	5	10
Applied Mechanics	5	10
Eng'g Management II	4	4
<i>TOTAL</i>	<i>30 hrs</i>	<i>60 credits</i>

Other Course Offered: TECHNICAL TRAINING CERTIFICATE IN METAL TRADES

DME LECTURERS:

Hernan V. Ibarra	Jack Namampa	Jaime Bersola
Head of Department	Head of Section –	BSME (TIP, Phils.)
BSME (MIT, Philippines),	Diploma	MPSME
MNAMA MPSME	BSMEng (PNGUT),	
	MIEPNG	

For more details, please contact:

The Head of Department
Mechanical Engineering
 Tel No. 472 2555 Loc 34

MECHANICAL ENGINEERING DEPARTMENT

The department conducts courses intended to meet the needs of PNG industries for skilled, high-ranking technicians in manufacturing facilities.

Graduates are trained to assume responsibility for development, construction and operation of mechanical and industrial equipment as well as industrial systems that may be computer- based technology.

The courses provide extensive grounding in Mechanical Engineering and industrial technology supported by studies in Mathematics, Science, Computing Language Studies and Electrical Engineering.

Students will be exposed to current and emerging technologies and will make use of computers as tool of analysis, information and design.

Some courses provide practical industrial work experience for students to gain confidence and learn about manufacturing environment.

Graduates may seek employment in all aspects of Mechanical Engineering and industrial technologies. However, experienced graduates may also be employed as middle ranking managers in manufacturing.

SPECIAL COURSES

National Polytechnic Institute offers several specialist courses. These are advertised in the Press. Fees and duration vary according to requirements.

A BRIEF HISTORY OF THE FIRST POLYTECHNIC INSTITUTE IN PAPUA NEW GUINEA

THE National Polytechnic Institute of Papua New Guinea (*NPIPNG* or *Polytec PNG* for short) was officially launched on 2nd December 2009 with the Governor General, Sir Paulias Matane, making the official declaration and unveiling of the commemoration plaque.

_____ The National Polytechnic Institute was legally established in 2008 by the National Education Board acting under its authority as provided by Education Act 1983. On August 2008 a fact-finding team of five was sent to New Zealand to study the organizational structure set up, operation and management, and academic programs of selected polytechnics and institutes of technology. The team consists of acting TVET assistant secretary Mr. Jayasundra J. Banda, as team leader, the late principal—Mr. Mathew Piruruho, deputy principal—Mr. Lawrence Parry, and two department heads—Mr. Joselito Marcos and Mrs. Rosa Manua,

_____ Upon its return the team presented their findings and recommendations in a comprehensive report to the governing council. The report was well received by the governing council that created the Polytechnic Committee. The committee was tasked, in 2009, to carry out year-long activities—ranging from formulation of new vision and mission statements, strategic and management plans, policies and procedures on student affairs, governance and management, finance, and human resource development to academic matters among others—culminating into the official launching of the first polytechnic institute on the day before the 55th and last graduation rite of the former Lae Technical College.

_____ The National Department of Education established the National Polytechnic Institute as the first of four polytechnics envisioned to be created in each of the four regions of the country. The conversion from being a technical and a business college to a polytechnic institute was realized through the initiative of Technical Vocational Education and Training division, and was spearheaded by the college's governing council and administration together with its six academic departments.

_____ The former Lae Technical College was established in 1953 at the location where Busu High School is presently situated. In 1954, it was relocated to its present site with initially one administration block, two workshop units, one dining hall, and one toilet block.

_____ Various changes and improvements had taken place in the school in terms of infrastructure, academic programs, and personnel. Like any organizations, the college encountered a number of difficulties and problems but with the able assistance of the governing council, school authorities, stakeholders and the community, it has survived all the odds.

_____ With strong commitment from and undying faith of all stakeholders, it is envisioned that the institute will produce useful citizens equipped with life-long skills and knowledge that they can use in their quest for personal success and contribute to the progress and prosperity of this nation.

MISSION STATEMENT

WE are a government educational institution committed to develop individuals in various life skills through quality and relevant educational programs that meet business, industry and community needs for sustainable national progress.

VISION STATEMENT

WE are a prime institution for growth, excellence and prosperity through quality education and training.