



COMPUTER ENGINEERING

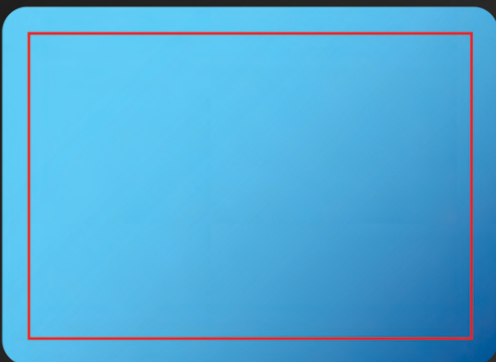
Temasek Polytechnic
School of Engineering



Create the future
with IoT, AI, cyber
security and smart
manufacturing!

Powered by GenAI Images

COMPUTER ENGINEERING



Course Overview

This course will empower you to become part of the Smart Nation talent pool. The unique blend of electronics and computer science in the curriculum will ensure that you are proficient in both hardware and software, as well as the integration of hardware systems and software applications. This enables you to become total solution providers with a competitive edge over those who are purely software or purely hardware trained.

- Strong emphasis on skills development ensures you will be sought after by employers
- Gain real-life working experience at GovTech under a one-year internship programme (compared to 16 weeks for most other diplomas)

Career Opportunities

With more and more companies embarking on digitalising their processes and businesses and placing high importance on applying the latest digital solutions, there is a growing demand for talent in the field of computer engineering.

Due to the versatility of the skills acquired, the course opens the doors to wider and better job opportunities in many industries.

You can look forward to careers as:

- Computer Systems Engineers
- Data Analytics Specialists
- Embedded Systems Engineers
- Hardware Engineers
- Integration Engineers
- Internet of Things Systems Engineers
- Software / Web / Mobile Application Developers



Powered by GenAI Images

What You'll Study

Select the Elective Cluster that brings your dream job to life!

Year 1: • Circuit Analysis • Computer Programming for Problem Solving • Digital Fundamentals 1 & 2 • Electronic Devices & Circuits • Electronic Prototyping • Engineering Mathematics 1 & 2 • Engineering Physics	Wafer Fabrication Process & Equipment Elective Cluster # • Wafer Fabrication Technology
Year 2: • Artificial Intelligence in Engineering • Artificial Intelligence & Machine Learning • Data Visualisation & Analytics • Engineering Mathematics 3 • Full Stack Development • Intelligent Automation • Internet of Things Project • Microcontroller Applications • Object-oriented Programming	Industrial Internet of Things Elective Cluster # • Mobile Device Applications Development
Advanced Engineering Skills Elective Cluster # • Advanced Skills Practices	Intralogistics & Cybersecurity Elective Cluster # • Distribution Centre Management
Industrial Internet of Things Elective Cluster # • System & Network Integration	Virtual Reality Elective Cluster # • Interactive Programming for Virtual Reality
Intralogistics & Cybersecurity Elective Cluster # • IoT Security	Sustainability in Engineering Elective Cluster # • Green Urban Transportation & Energy Storage • Solar Photovoltaic Technology & Leasing
Virtual Reality Elective Cluster # • 3D Modelling for Virtual Reality	Structured Work-Based Learning Elective Cluster ^ # • Work-Based Learning
Sustainability in Engineering Elective Cluster# • Life Cycle Analysis • Renewable Energy Technologies	Wafer Fabrication Process & Equipment Elective Cluster # • Cleanroom & Vacuum Technology
	University Pathway Programme (NUS) ^ University Pathway Programme (SUTD) ^ # Students must choose the same elective cluster in both Year 2 and Year 3 ^ For selected students

Temasek
POLYTECHNIC
CREATING TOMORROW

21 Tampines Ave 1
Singapore 529757

- www.tp.edu.sg/eng
- eng hotline@tp.edu.sg
- [Instagram.com/tpengine](https://www.instagram.com/tpengine)
- [Linkedin.com/company/tpengine](https://www.linkedin.com/company/tpengine)
- [Facebook.com/tpengineering](https://www.facebook.com/tpengineering)
- [Tiktok.com/@tpengine](https://www.tiktok.com/@tpengine)

T13
Diploma in
Computer
Engineering



The information in this brochure is accurate at the time of printing
For the latest information, please refer to our website
Date of printing: Jan 2025