

NCUK

International
Year One

**ELECTRICAL &
ELECTRONIC
ENGINEERING**

NCUK
UNIVERSITY PATHWAYS



International Year One in Electrical & Electronic Engineering Programme and Module Overview

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ELECTRICAL & ELECTRONIC ENGINEERING

Overview

The International Year One in Electrical & Electronic Engineering is a first-year undergraduate programme that provides students with a comprehensive base of knowledge and skills in electrical and electronic engineering. This programme prepares students for a smooth transition into the second year (FHEQ Level 5) of an electrical and electronic engineering degree.

Benchmarking statement

The International Year One in Electrical & Electronic Engineering is at FHEQ Level 4.

Entry requirements

- **NCUK International Foundation Year:** At least two 'D' grades and an EAP 'D' grade, OR
- **GCE A-levels:** A minimum of grade 'D' in two relevant UK-recognised 'A' levels and IELTS 5.5 (or equivalent), OR
- Country-specific⁹ entry requirements that are similar.
- All applicants must also have passed in both maths and physics in the qualification they use for entry.

Programme structure

The programme comprises 1,200 total study hours, divided into 600 guided learning hours and 600 independent study hours. Students will complete seven compulsory modules: five modules spanning both semesters and one separate module in each semester.

Standard delivery example:

- **Teaching hours:** 20 hours per week
- **Total:** 600 hours of guided learning + 600 hours of independent study (1,200 learning hours)
- **Duration:** 30 weeks (divided into two 15-week semesters)

Modules

- **Analogue & Digital Electronics (20 credits):** Covers active circuit elements, digital logic components, and mathematical circuit analysis with practical applications.
- **Circuit Principles (20 credits):** Introduces fundamental circuit elements, DC and transient analysis, and practical circuit applications.
- **Electronics Design Project (20 credits):** Focuses on electronic product design, implementation, sustainability, and practical circuit construction with management insights.

⁹ Country-specific entry requirements for the NCUK International Year One: <https://www.ncuk.ac.uk/ncuk-programmes/international-year-one>

- **Engineering Mathematics (20 credits):** Develops advanced mathematical skills essential for engineering study.
- **Programming (20 credits):** Provides a foundation in C programming, progressing from basics to complex concepts with practical exercises.
- **Electronic Engineering Materials (10 credits):** Explores semiconductor properties, device structures, optical components, and magnetic materials.
- **Energy Transport & Conversion (10 credits):** Introduces energy conversion, electrical transmission, distribution networks, and demand-side management.

Assessment, grading & certification

The assessment breakdown is generally 40% coursework and 60% exam. Each module requires a minimum pass mark of 40%. The programme awards classifications as follows:


- **Distinction:** 70%+ overall mean mark with 120 credits awarded
- **Pass:** 40%+ overall mean mark with at least 100 credits
- **Fail:** Less than 40% overall or fewer than 100 credits


Progression


Students who complete the programme successfully are certified for progression to the second year of appropriate undergraduate degree courses at NCUK’s university partners.


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University of BRISTOL



Waipapa Taumata Rau
University of Auckland



UNIVERSITY OF BIRMINGHAM



UNIVERSITY OF LEEDS



University of Sheffield



Queen Mary
University of London



RMIT
UNIVERSITY



UNIVERSITY OF LIVERPOOL



Lancaster
University



MASSEY
UNIVERSITY
TE KŪHANGA O PŌHEHUROA
UNIVERSITY OF NEW ZEALAND



VICTORIA UNIVERSITY OF WELLINGTON
TE HIRANGA WAKA
NEW ZEALAND



UC
UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
UNIVERSITY OF CANTERBURY NEW ZEALAND



THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato
NEW ZEALAND



SWINBURNE
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University of Salford
MANCHESTER


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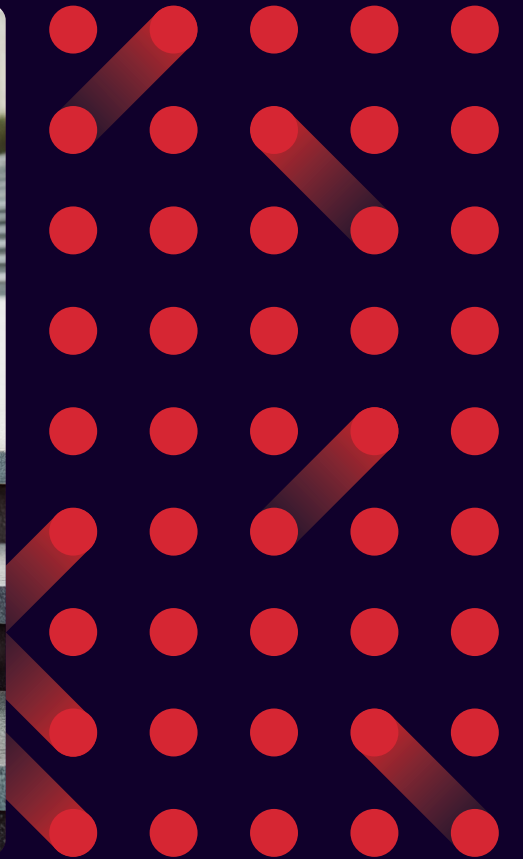


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