About FENC

In 1998 the University of Technology, Jamaica (UTech) was reorganized into five Faculties. Emerging from the rationalization of the university's academic and administrative units, the Faculty of Engineering and Computing (FENC) became an entity. FENC comprises the following schools:

- School of Engineering
- School of Computing and Information Technology

FENC is the second largest such faculty in the Caribbean region and it is also the second largest faculty within UTech.

Vision Statement

To be the preferred partner in providing education and training for engineering and computing scholarship in Jamaica and the Caribbean.

Mission Statement

Build an education and training framework that responds to local and regional needs by:

- Promoting excellence in staff, students and graduates.
- Emphasizing quality in teaching and research.
- Developing relevant curricula based on student-centred learning concepts.
- Fostering innovative use of technology in teaching methods and laboratory exercises.

- Maintaining a strong commitment to research, service and teamwork.
- Developing applied research projects for industrial renewal.
- Building collaboration with engineering and computing training institutions locally and internationally.

ENGINEERING & COMPUTING

Application & Registration

1. Applications should be made on the prescribed form, which is available at the Student Affairs Office.

2. Course Participants are encouraged to register in advance by completing and submitting the application form

3. Final Payments should be made at least **two weeks** before commencement of the course. Payments are accepted in Cash, Debit/Credit Cards, or Manager's Cheques.

Cancellation

1. Courses may be cancelled where enrolment is insufficient, in which case, a refund of course fees will be made.

2. Student cancellation must be received one (1) week prior to the commencement of the course, failing which the individual or sponsor will be held responsible for the payment of fees.
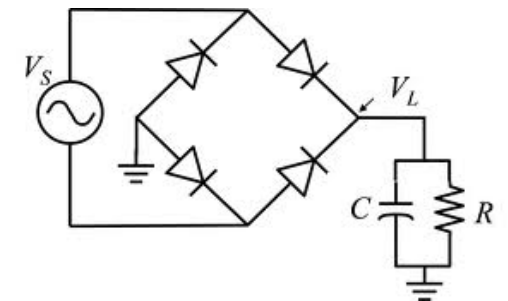
Contact

Student Affairs Office

Faculty of Engineering & Computing

University of Technology, Jamaica

237 Old Hope Road, Kingston 6

Phone: (876) 970-5163, 970-5165

Email: nmgordon@utech.edu.jm

University of Technology, Jamaica

Faculty of Engineering & Computing

Basic Electronics

"Solution Driven, Development Bound"

OBJECTIVE

The course aims to provide students with broad based knowledge of the fundamentals of electronics. Exposure to and use of measuring and test instruments forms a critical component

At the end of the course the student should:

- Understand the principles governing the flow of electricity through various materials
- Appreciate the use of electrical circuit symbols
- Understand the action of basic electrical components
- Appreciate the use of electrical components in electrical circuits
- Appreciate the use of logic in electrical circuitry
- Appreciate the use of measuring instruments

COURSE OUTLINE

Electrical Concepts

- Engineering & Scientific notation
- Atomic Structure
- Insulators/Conductors/Semiconductors
- Basic Electrical quantities

Electrical Circuits

- Ohm's Law
- Resistors
- Series Circuits
- Parallel Circuits
- Series/Parallel Circuits
- Capacitors
- Inductors

Alternating Current

- Graphical Representation
- Mathematical Representation
- Alternating Current quantities

Semiconductor Devices

- Diodes
- Power Supplies
- Transistors

Logic Gates

- Types/equivalent circuits
- Truth Tables
- Boolean Algebra

BREAKDOWN OF HOURS

Lectures/Tutorials	30 hours
Laboratories	10 hours
Exams/Tests	05 hours
DURATION:	45hours

LEARNING & TEACHING APPROACH

The course is delivered by lectures supported by tutorial sessions. Students are also required to complete five(5) two hour laboratory sessions.

ASSESSMENT PROCEDURES

Assessment is based on both practical and theoretical concepts.

In class test/exams	30%
Laboratory Exercises	20%
Final Test:	50%

AWARD

On successful completion of the course, that is, where a student gains a mark of 50% or above, the individual will be awarded a "Certificate of Competence".