



## ICT-U CAMEROON, P.O. Box 526 Yaounde, Cameroon

### Schools and Programs

## DETAILED ICT-U PROGRAMS AND CORRESPONDING CREDIT HOURS

### *Important note on English as a Second Language (ESL) and International Computer Driving License (ICDL):*

**English as a Second Language (ESL):** The courses detailed in this document are all taught in English. However, students with French or Spanish as their first language will be offered the opportunity to go through a one-semester intensive English as a Second Language (ESL) program to prepare the students for our ICT University courses. This one semester program DOES NOT count towards the student's degree. The details of the ESL program follow the explanation of the ICDL.

### **International Computer Driving License (ICDL):**

The ICDL demonstrates a student's ability to use a computer and its most popular computer applications. Candidates have to pass tests in the following seven modules as the first three (3) credit hour course at ICT-U. The ICDL program is for anyone who wishes to become fully competent in the use of a computer and common applications. Each ICDL module provides a practical program of up-to-date skills and knowledge areas which are validated by a test.

For students to achieve a solid base of skills and knowledge, therefore attaining a minimum level of digital literacy, it is recommended that candidates complete and attain certification in a minimum of four ICDL modules. Students are required to take training on each module prior to taking the test. Each module is tested separately with each test lasting no longer than 45 minutes. For a recommended level of ICT competence to be achieved, a certification of a minimum of seven ICDL modules is appropriate. In order to achieve the ICDL certification, individuals must pass a test for each of the seven modules.

ALL ICT-U students MUST take this course which counts for three (3) credit hours towards their degree. This course will be open to members of the public who just wish to do this as their part of their professional development, without engaging in any of ICT-U's degree programs.



- Module 1 - Concepts of ICT
- Module 2 - Using the Computer and Managing Files
- Module 3 - Word Processing
- Module 4 - Spreadsheets
- Module 5 - Using Databases
- Module 6 - Presentation
- Module 7 - Web Browsing and Communication
- Module 8 - 2D Computer Aided Design
- Module 9 - Image Editing
- Module 10 - Web Editing
- Module 11 - Health Information Systems Usage
- Module 12 - IT Security
- Module 13 - Project Planning

**English as a Second Language (ESL) Detailed Program:** Organized in five modules

### **English as a Second Language Module 1**

#### **Conversation Skills Are Developed**

• Reading and writing are important skills, but we begin the ESL program with emphasis on listening and speaking. The main focus of the program is developing one's ability to use English in everyday personal and workplace situations.

The student will receive a student assignment booklet and CD which are designed to help you learn to speak English. The student needs to follow the directions in the student assignment booklet to understand how and when to use each component of the program.

### **English as a Second Language Module 2**

#### **Literacy in the Workplace**

The student will learn the essentials of basic English necessary to survive on the job.

- Completing simple forms and asking for directions
- Identifying places at work
- Following simple instructions for using common machines at work
- Greeting customers, taking their orders and offering assistance
- Understanding good work habits
- Working with money, both at work and at home
- Following safety rules at work
- Reading help wanted ads, and completing a job application

### **English as a Second Language Module 3**



## Everyday English

The student will learn the essentials of basic English necessary to survive in any English speaking country

- Introducing and completing an identification form
- Reading maps, following directions and using a payphone
- Calendars, times and dates, store hour signs, and the weather
- The supermarket, reading price tags and expiration dates
- Shopping for clothes, comparison shopping, and writing checks
- Buying or renting a home, asking for simple repairs
- Making doctors' appointments, listening to doctors' instructions
- Reading help wanted ads, completing job applications
- Using public transportation and reading traffic signs

## English as a Second Language Module 4

### Basic Skills in Reading

The student readings include a variety of sources such as popular literature, classical literature, articles, reviews, and workplace-related materials.

- Fiction - includes many different examples from novels and short stories
- Nonfiction - biographies, autobiographies, essays, magazine articles, reviews
- Poetry and Drama - popular, social, and classical aspects of each are covered
- Prose and Visual Information - brochures and ads, calendars and schedules, forms and documents, manuals and handbooks, drawings and diagrams, charts and graphs

## English as a Second Language Module 5

### Basic Skills in Writing

Writing is a form of expression and communication. When the student writes well, others can understand what they are saying. The student will learn to use the writing process to their advantage.

- Essay and Creative Writing - the writing process, narrative writing, descriptive writing, expository writing, persuasive writing
- Workplace and Personal Writing - letter writing, job search writing, workplace writing, explanatory writing, report writing
- Grammar Guide - mechanics, usage, sentence structure
- Writing Handbook - models, editing, checklist, proofreading



## **ACADEMIC MAJOR 3: ELECTRONICS ENGINEERING TECHNOLOGY**

### **BACHELORS IN ELECTRONICS ENGINEERING TECHNOLOGY(B.ENG.) WITH A CONCENTRATION IN POWER SYSTEMS/RENEWABLE ENERGY**

#### **Program Description**

Electronics have revolutionized the world. From iPods and cell phones to personal computers, we use a number of high-tech devices multiple times a day. And individuals with the skills needed to build the electronic circuits that drive these devices are in demand. At The ICT University, you can earn a bachelor's degree in Electronics Engineering Technology (B.Eng.) at one of our campus locations and you could be at the forefront of a growing industry. Some of your courses will be taught online and you will get to interact (live) with professors from the US and students from multiple countries. Whether you are at our ICT-U campus or online, qualified practitioner faculty will teach your classes, and you'll have regular opportunities for collaboration and interaction with classmates.

In addition, Engineering Technology – Electronics students can specialize in the area of Renewable Energy.

**Graduation Requirements:** 9 full-time semesters, 139 credit hours

#### **Program Details**

##### **General Education Coursework**

At ICT University, we believe in the value of a comprehensive education. This means broadening your knowledge and skill sets beyond the area of your degree program, to help prepare you to succeed in today's diverse and evolving workplace. From day one, you can learn important analytical and communication skills, such as problem-solving, reasoning and analysis, academic and professional writing, plus mathematics and statistics skills. These skills can better equip you to work across cultures and understand a wide range of concepts that influence your area of study.

General Education Coursework:

- Communication Skills
- Humanities
- Mathematics and Analytical Methods
- Natural Sciences
- Personal and Professional Development
- Social Sciences

##### **Core Degree Coursework**

COMP-122	Structured Programming with Lab
COMP-220	Object-Oriented Programming with Lab
ECET-100	Introduction to Electronics and Computer Engineering Technology with Lab
ECET-110	Electronic Circuits and Devices I with Lab



ECET-210	Electronic Circuits and Devices II with Lab
ECET-220	Electronic Circuits and Devices III with Lab
ECET-230	Digital Circuits and Systems with Lab
ECET-299	Technology Integration I
COMP-328	Programming Environments and Java with Lab
ECET-310	Communications Systems with Lab
ECET-330	Microprocessor Architecture with Lab
ECET-340	Microprocessor Interfacing with Lab
ECET-350	SignalProcessing with Lab

12 Credit Hours in Power Systems/Renewable Energy

ECET-390	Product Development
ECET-492L	SeniorProject Development Lab I
ECET-493L	SeniorProject Development Lab II
ECET-494L	SeniorProject Development Lab III
REET-420	Power Electronics and Alternative Energy Applications with Lab
REET-425	Electric Machines and Power Systems with Lab

General Education Coursework (credit hours)	61
Core-Degree Coursework (credit hours)	28
Career-Focused Coursework (credit hours)	50
Approximate Credit Hours Required for Graduation	139

This could take 3-4 years. Students who enroll in the summer semester can complete the program in three years. Students taking only two semesters a year can complete in four years.

### Knowledge and Skills

**Engineering and Technology** — Use knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures and equipment to the design and production of various goods and services.

**Computers and Electronics** — Gain knowledge of circuit boards, processors, chips, electronic equipment and computer hardware and software, including applications and programming.

**Controls and Mechatronics**— Learn the electronic control of mechanical systems, covering sensors and transducers, signal conditioning, actuators, controllers, system models, system transfer functions, and dynamic system response.

**Signal Processing** — Explore analog signal processing (ASP) and digital signal processing (DSP), with emphasis on DSP and program ASP and DSP chips for applications in communications, control systems, digital audio processing and digital image processing.

**Maintenance and Repair** — Service, repair, calibrate, regulate, finetune or test machines, devices and equipment that operate primarily on the basis of electrical or electronic (not mechanical) principles.



Communications and Networking— Examine principles of data communications, including noise effects, multiplexing and transmission methods. Apply protocols, architecture and performance analysis of local and wide area networks.

Analyzing Data or Information — Identify the underlying principles, reasons or information by breaking down information or data into separate parts.

Design — Understand the use of design techniques, tools, and principles involved in the production of precision technical plans, blueprints, drawings and models.

Complex Problem Solving — Identify complex problems and review related information to develop and evaluate options and implement solutions.

### **Careers in Engineering Technology**

Electronics engineers are sought after in many different industries — from consumer product design to medical device manufacturing to communications. Your ability to both design and develop these solutions can make you a valuable asset to any team.

ICT University’s Engineering Technology – Electronics degree program focuses on advanced skill development, using the most current tools and techniques. You can also build on the written and verbal communication skills that will help you to lead teams of engineers to solve 21st century business and electronics challenges.

Graduates of ICT University’s Engineering Technology – Electronics degree program may consider careers including:

- Application Engineer
- Customer Service Engineer
- Electronic Technician
- Engineering Specialist
- Manufacturing Technician
- Sales Engineer
- Test Engineer/Technologist