



## 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



## **I. DEGREE PROGRAM: MASTERS (MS / MPhil)**

### **ACADEMIC MAJOR 1: INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT)**

#### **MASTER OF SCIENCE IN INFORMATION AND COMMUNICATIONS TECHNOLOGY (MS)**

##### **Program Overview**

This ICT master's degree helps IT experts to gain and develop the practical skills considered necessary to succeed within the information and communications technology field through hands-on, practical coaching in specific courses, structured for the busy grown person. The amalgamation of practical skills and strategic business perception, together with the cutting-edge technical skills crucial to blossom in the field, will aid you advance your vocation now and position you for upcoming line of business growth and security.

Prospective and contemporary IT experts will profit from targeted training based on professional needs, such as web design and development, telecommunications technology, or database design and administration. Tailor your Information and Communication Technology master's degree through the ground-breaking Professional Options curriculum, which permits you to decide on courses that accommodate to the unambiguous requirements of your line of business.

In the speedily developing, converged world of ICT, it is critical to take hold of the varied industry rudiments, while also gaining an insider's standpoint regarding definite areas of ICT such as web and software design, technology and project management, networking, geographic information systems, and information security. Students will gain knowledge of how and to what extent their area of study come together with others to give them a distinctive and competitive edge all through their vocations.

The Information and Communications Technology (ICT) master's degree is a two years degree program for students taking classes in the Spring, Summer and Fall semesters. Regular and part-time students are allowed to go above three years, however, students cannot be allowed in the program after four years. The course load will consist of the following:

- Completion of Coursework
  - ICT Research Seminars (6 hours)
  - Courses in Area of Concentration (27 hours) (Manuscript development)
  - Quantitative Research Methods/Statistics (3 hours)



- Qualitative Research Methods (3 hours)
- Master's degree comprehensive examination or Scientific (theory-driven) thesis and a public defense
- Submission/Publication of three peer reviewed journal and three conference articles (facilitated through one-to-one mentoring of ICT-U faculty members)

See a list of some of the core and required courses by concentration below:

### **Telecommunication Technology Specialty**

This master's degree specialty provides students with practical, hands-on education related to the telecommunications industry, including how to assess budding telecommunications technologies, wireless networks and services, and the convergence of voice, data, and multimedia services on the global IP network for the fulfillment of communication needs.

Master of Science in **Information and Communications Technology** with a specialty in **Telecommunications Technology** requires completion of **48** credit hours (12 courses)

This degree prepares students to:

- Grow to be talented in the technical specifications of multiple telecommunications technologies.
- Appraise alternative technologies for the fulfillment of communications needs.
- Evaluate current and emerging telecommunications technologies.
- Get ready for a future in which telecommunications, data transfer, and digital entertainment converge.
- Prepare and assess the effectiveness of an enterprise network.

**Compulsory Courses: (12 credits)**

**Professional Foundation Courses**



ICT Industry Structures and Concepts (3 credits)

ICT Current Technologies and Trends (3 credits)

Enterprise Architecture (3 credits)

**Core Courses (8 credits)**

Graduate Research and Writing (3 credits)

ICT Capstone project (4 credits)

**OR**

Captone Seminar (4 credits)

**Specialty Courses (16 credits)**

Telecom Networks (3 credits)

Broadband Wireless Networks (3 credits)

Next Generation Wireless Networks and Services (3 credits)

Network Security with Lab (3 credits)

**Elective Courses (12 credits)**

GIS in Telecommunications (3 credits)

Enterprise Networks (3 credits)

Global Telecom Regulation (3 credits)

Client Relationship Management (3 credits)

Convergence Technologies (3 credits)

Cloud and Internet Law (3 credits)

TCP/IP Networks (3 credits)

IS Security Principles (3 credits)

**I. Software Design and Programming Specialty**

The Software Design and Programming master's degree area of expertise exposes students to applied, hands-on training on classifications, implementation strategies, and cost-effective project management skills. The techniques are functional during lab sessions, where professional instructors lead software degree students to categorize and overcome difficulties presented by designing and programming software. Students engaged in the degree program find out how to develop quality software programs and applications. They also learn about Software Quality Assurance, the Unified Software Development Process, and C# and Java languages.

Master of Science degree in Information and Communications Technology with a specialty in Software Design and Programming requires completion of **48** credit hours (12 courses).



## **Compulsory Courses**

### **Professional Foundation Courses (12 credits)**

ICT Industry Structures and Concepts (4 credits)

ICT Current Technologies and Trends (4 credits)

Enterprise Architecture (4 credits)

### **Core Courses (8 credits)**

Graduate Research and Writing (4 credits)

ICT Capstone project (4 credits)

### **OR**

Capstone Seminar (4 credits)

### **Specialty Courses (16 credits)**

Web Enabled Information Systems (4 credits)

Object-Oriented Programming (4 credits)

Distributed- Client Server (4 credits)

Object-Oriented Methods (4 credits)

### **Elective Courses (12 credits)**

XML Apps Development (4 credits)

Website Design and Management (4 credits)

Database Design and Programming (4 credits)

JAVA Programming (4 credits)

Advanced C# programming (4 credits)

.NET Programming with C# (4 credits)

Application Security (4 credits)

Principles of Cryptography (4 credits)

IS Security Principles (4 credits)

Native Application Development with Adobe AIR on Mobile Devices (4 credits)

Web scripting with JavaScript (4 credits)

Web development with PHP (4 credits)

Introduction to the Flash platform (4 credits)

Motion and Interactivity with Adobe Edge (4 credits)