



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: DATA COMMUNICATION AND NETWORKING (DCN)

PhD IN DATA COMMUNICATION AND NETWORKING (DCN)

Program Overview:

The PhD in telecommunications is a 4 year program that allows students to engage in independent, first-class research and teaching. Our research agenda covers broadly the state-of-the art Internet technologies and security from various angles. It offers research-oriented graduate study and professional specialization in Data Communication and networking. The program emphasizes both scholarly and applied research. The PhD program consists of at least 45 credits hours. The student may also receive credits for research work, if this work is of high scientific quality (i.e. in principle publishable) and is not related to the thesis work of the student.

This program is based on the Dissertation Option. It requires 24 credit hours of core courses and at least 12 hours of research courses outside of the core courses. At least 12 credits out of the 24 credit hours must be at the 800 level. 600 level courses are not counted in the coursework requirement except for courses related to student's Qualifying Examination. Students are also required to take 15 hours of research seminar courses.

Below is a breakdown of the doctoral program in Data Communication and networking requirements:

- Completion of Coursework
 - ICT Research Seminars (15 hours)
 - Courses in Area of Concentration (24 hours) (Manuscript development)
 - Quantitative Research Methods/Statistics (3 hours)
 - Qualitative Research Methods (3 hours)
- Doctoral degree comprehensive examination
- Submission/Publication of three peer reviewed journal and three conference articles (facilitated through one-to-one mentoring of ICT-U faculty members)
- Scientific (theory-driven) thesis/dissertation
- Public Defense of thesis/dissertation



This program includes theories and application related communication systems, signal processing, image processing, pattern recognition and computer vision; employing various techniques, such as signal detection, speech recognition, 3-D image modeling. Topics include routing and flow-control techniques suitable for high-speed digital networks switching architectures and protocols for heterogeneous networks of various sizes. Such networks include ATM networks, as well as modeling and analysis of an integrated mixture of different traffic types and sources suitable for the Integrated Service Digital Network.

Program modules:

- ELEN-647 Introduction to Telecommunication Networks (3 hours).
- ELEN-650 Digital Signal Processing-I (3 hours).
- ELEN-651 Digital Signal Processing Laboratory (3 hours).
- ELEN-656 Probability and Random Processes (3 hours).
- ELEN-657 Image Processing (3 hours).
- ELEN-658 Digital Image Processing Laboratory (3 hours).
- ELEN-685 Selected Topics in Engineering (3 hours)
- ELEN-686 Special Projects, ELEN-749 Digital Communications (3 hours)
- ELEN-752 Wireless Information Networks (3 hours).
- ELEN-847 Telecommunication Networks (3 hours).
- ELEN-848 Information Theory (3 hours).
- ELEN-849 Data Communications (3 hours).
- ELEN-850 Digital Signal Processing-II, (3 hours).
- ELEN-857 Pattern Recognition (3 hours).
- ELEN-869 Machine Vision for Intelligent- Robotics (3 hours).
- DCN-901 Network Service Business Model (3 hours).
- DCN-902 Technology Management in Telecommunication industry (3 hours).
- DCN-905 Research Seminar in Telecommunications Business (3 hours)
- DCN-906 Introduction to Data Communications and Multimedia Technology (3 hours).
- DCN-903 Introduction to Data communications (3 hours)
- DCN-907 Information Security Technology (3 hours)
- DCN-910 Mobile Systems Programing (3 hours)
- DCN-911 Information Security and Usability (3 hours)
- DCN-917 Internet technology for mobile computing (3 hours)



- DCN- 915 System Engineering in Data Communication software (3 hours)
- DCN-912 Individual study in Data Communications (3 hours)
- DCN-913 Seminar on network Security (3 hours)
- DCN-916 Developing process for Information security (3 hours)
- DCN-918 Laboratory work in Data Communication Software (3 hours)
- DCN-920 Quantitative Research Methodology 1 (3 hours).
- Quantitative Research Methodology 2 (3 hours).
- Qualitative Research Methodology 1 (3 hours).
- Qualitative Research methodology 2 (3 hours).