BACHELOR PROGRAM

—

SOFTWARE ENGINEERING

OUR **BACHELOR** PROGRAMS

Canadian Institute of Technology offers high quality educational programs ranging from Bachelor in Business Administration, Business Administration and IT, Finance & Accounting, Software Engineering, Telecommunication Engineering, Computer Engineering & IT, Robotics & Mechatronics Engineering and Electronics Engineering. Designed for students interested in pursuing a career in these fields, you will get a start in the job market, and may gain exemptions from professional qualifications.

You will develop a professional understanding of these programs, applicable to real world jobs.

Canadian Institute of Technology commits on delivering quality education through its highly qualified domestic academic staff with teaching experience abroad as well as international academic staff.

Study with McGraw Hill, one of the biggest educational publishers in the world.

Improve your English skills and increase employment opportunities by gaining access to an international career.

A connected and supportive network

Teaching process is based on the best international educational practices, empowering graduates with creative, innovative, entrepreneurial skills, and a passion for knowledge.

WHY BACHELOR IN
SOFTWARE ENGINEERING

Our study program in Software Engineering provides students with the knowledge and skills to pursue professional paths in application development, database and systems administration, software and web deployment and more. Upon completion of this program's project-based curriculum, students will be proficient in coding, modeling and creative problem-solving.

The Bachelor of Software Engineering degree program has been designed from the outset to provide a firm foundation for employability of the students and a long-term successful career. The curriculum emphasizes theory and provides practical experience with the most advanced software development tools and strategies.

The Bachelor of Software Engineering helps prepare the student succeed in their career by providing them a comprehensive breadth and depth of knowledge underpinning the foundation of Software Engineering in terms of Computer Science Theory, Programming Languages and Engineering practice.

Students will also acquire communication skills and the engineering design principles of design, testing, debugging as it applies to software systems in terms of their development and maintenance.

TARGET SKILLS

Acquire a solid understanding of the software development life cycle and processes from the early design stages to the long-term software maintenance and evolution.

Have the competent ability to construct and evaluate software in the context of physical systems and real-world applications.

Design usable human computer interfaces providing usability and accessibility.

Apply established engineering design principles to software development including trade-off analyses in terms of performance and cost.

Understand the important criteria of software quality, assurance and conformance to standards.

Nurture and grow the skills necessary to plan and manage large industrial software projects.

Learn interpersonal skills in order to work both independently and in a team.

Comprehend engineering economics and entrepreneurship in software practice.

Appreciate the underlying principles on which physical systems and real-world applications are built on.

Effectively integrate and participate in the design process of these systems and applications.

Be able to communicate precisely, orally and in writing; conveying the knowledge and skills in software engineering in an uncomplicated way.

Proficiently utilise the knowledge from the other related areas of engineering, mathematics and complementary studies.

Above all to be a world-class future Software Engineer, lifelong learner and contributor to the wellbeing of the world.

TYPICAL CAREER OPPORTUNITIES

- AI & Machine Learning Programmer
- Database Designer & Manager
- Decision Support System Developer
- Business Analyst
- Enterprise Information System Designer
- System Administrator
- Information Specialist

- Software Developer
- E-commerce Developer
- Software Architect
- Software Project Manager
- Website Manager
- Software Tester
- Games Developer
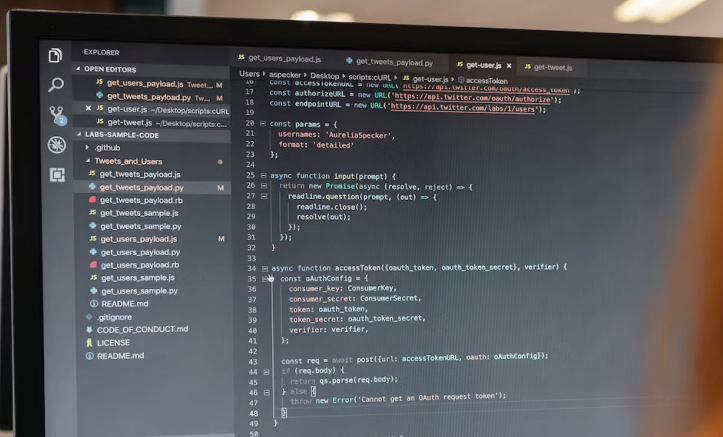
BACHELOR IN
SOFTWARE ENGINEERING

First Year

FIRST SEMESTER COURSES

- Academic Reading and Writing
- Introduction to Economics
- Calculus I
- Computer Applications
- Elective Subject

Choose one of:
- Introduction to Psychology
- Research Methods
- History of Economics

SECOND SEMESTER COURSES

- Computer Science Fundamentals
- Introduction to Economics
- Linear Algebra
- Computer Communications and Networks
- Physics I

Second Year

THIRD SEMESTER COURSES

- Fundamentals of Programming I
- Physics II
- Electric Circuits
- E-commerce and Innovation
- Calculus II

FOURTH SEMESTER COURSES

- Fundamentals of Programming II
- Introduction to Software Engineering
- Engineering Chemistry
- Calculus III
- Software Architecture and Systems

Third Year

FIFTH SEMESTER COURSES

- Database Systems
- Introduction to Operating Systems
- Computer Architecture and Assembly Language/Microprocessor Systems
- Introduction to Web Design
- Software Project Management

SIXTH SEMESTER COURSES

- Software Architecture and Systems
- Systems Dynamics
- Elective Subject

Choose one of:
- Applied Logic for Computer Science
- Software Evolution
- Computer Communications & Networks II

• Internship

The Internship Course takes place in the third year of bachelor studies, spanning 4 weeks (120 hours) and earning 6 ECTS credits. It offers practical experience in real-world scenarios, enhancing critical thinking, innovation, and design skills. Through collaboration with professionals, students learn to address challenges, meet objectives, and explore novel ideas in commercial devices, systems, or software. The internship should align closely with their field of study.

Objectives of the Internship Course:

a. Bridge the gap between theory and practical implementation.

b. Cultivate skills within a professional work environment.

c. Provide valuable job market experience.

d. Contribute to market-related opportunities.

• Thesis

The undergraduate diploma thesis is an integral part of the final semester of the program. It is valued at 6 credits in the first cycle academic and professional higher education study program in Software Engineering.

The diploma thesis can be prepared at the same time as other study requirements are completed in the third year, and the submission and defence of the diploma thesis is the final component of first cycle studies.

Theses is the ultimate obligation of the student to get a diploma at the end of the study program. It is an individual research work, which the student performs during the last year of the studies. The thesis can guide their master's studies and career as well.

The Bachelor in Software Engineering first cycle diploma gives the possibility to its owner to access the second cycle studies (master studies). For continuing the second cycle studies in Software Engineering, Industrial, Telecommunications, Information Technology, and on related study fields.

HOW TO APPLY

Bachelor's Programs (National Students)

The first step to become a student at CIT is to complete the application form, which is available at **www.cit.edu.al**. An Admissions Officer will then contact you to provide further details about the pre-registration process and the required documents for this stage.

NOTE: Completing the A1/A1Z form on e-Albania portal and the online form in U-Albania portal are fundamental steps for your enrollment.

Admission Criteria
To be admitted to the bachelor's study programs, the candidate must have:
• Successfully completed high school;
• A high school GPA of 6.5 and above;
• Demonstrated English language proficiency at the B1 level
  or higher.

All high school students must include University College "Canadian Institute of Technology" as one of their 10 choices in the U-Albania System to register at our university.

SCAN ME
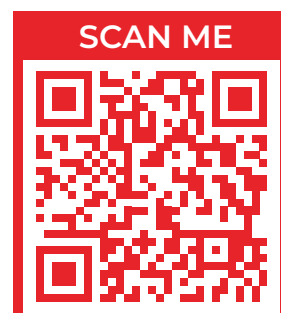
Bachelor's Programs (International Students)

The first step to become a student at CIT is to complete the application form, which is available at **www.cit.edu.al**. An Admissions Officer will then contact you to provide further details about the pre-registration process and the required documents for this stage.

Admission Criteria
To be admitted to the bachelor's study programs, international candidates must meet the following requirements:
• Hold a high school diploma recognized by the Albanian Education Service Center;
• A high school GPA of 6.5 and above;
• Demonstrated English language proficiency at the B1 level
  or higher.

International students are required to apply to the Albanian Education Service Center (QSHA) for the recognition of their high school diplomas.

SCAN ME

CIT
CANADIAN INSTITUTE OF TECHNOLOGY
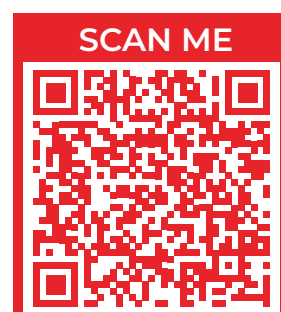
OPEN YOUR DOOR TO THE WORLD

Canadian Institute of Technology
Str. "Xhanfize Keko" No.12
("Xhura" Complex near TV Klan)
Tirana-Albania
+355 (0) 42 22 9778 | +355 (0) 67 40 42 042
info@cit.edu.al
www.cit.edu.al

Canadian Institute of Technology

Canadian Institute of Technology - CIT

@CITECHNOLOGY

canadian_institute_of_tech