

## **UNDERGRADUATE PROGRAMMES**

### **Information Technology Engineering**

*Meet the real demands of the business world*

As its main goal the Bachelors Honours degree in ITE has the formation of competent professionals with broad knowledge in every area related to the New Technologies. The capacity to leader project development, to be able to identify problems, evaluate risks and provide efficient solutions. To have a great capacity for learning and adaptation to possible changes in a rapidly changing environment. It is a consolidated degree that is valued by firms. It is general and dynamic and aware of the most modern technological advances. This programme provides logical solutions to everyday life. It analyses firm needs and looking for solutions with help from IT programmes.

The Degree course in Information Technology Engineering provides solid training in the latest programming languages and operating systems, in computer architecture and engineering, artificial intelligence, and maintenance of computer systems and networks.

The students learn advanced design and development techniques for computer applications, using CASE tools, and high level programming languages and specific operating techniques and systems and advanced programming languages and specific operating techniques and systems.

Specialisation in the design and maintenance of computer systems and networks.

Specialised training in IT solutions in the different business areas; production, marketing, finance, employment and human resources.

Training of IT specialists able to find solutions to technical problems in the design of hardware systems, IT systems, interconnectivity and software maintenance.

Training in the latest techniques in the management and organisation of businesses in the information technology sector.

Foreign language practice and skills.

The Information Technology students develop their end-of-studies project in important companies in the region, where they implement complex IT applications and reach a high professional standard.

#### **Career Outlook**

The IT Engineering degree trains graduates to work in enterprises of all sectors and areas of information technology and communications, and hold positions of responsibility in IT departments of IT companies or in information systems departments of companies of any productive sector of life and work; from data centers, hardware and software companies, financial institutions, education, industry, telecommunications, high technology, security, computer consulting ... Some of the posts to which our students can choose in their careers are; Systems Analyst applications, Computer Consultant, Database Administrator, Programmer, Webmaster, Network and Security Manager, Project Manager Computer Programming and Data Centers, Internet Manager, Electronic Commerce ...

#### **Learning Method**

Besides having a high, rigorous academic level, the practical training the student undergoes is an essential requisite for her professional integration.

Cesine encourages the active participation of the students in their learning and application of the knowledge they have acquired towards dealing and coming up with adequate solutions for real, complex problems as well as developing his decision making skills.

This method is based on developing the intellectual skills and aptitudes by way of reduced groups in active classes. The discussion of practical cases, computer simulations, carrying out work in teams, monographic projects, development of IT applications are included here as well. Not to forget design projects for firms, research projects and studies for institutions and business organizations.

There is a continuous individualized follow-up of the learning process. It measures progress on a daily basis and allows for continuous evaluation of the student so as to assure student success in their studies.

Students also have, among other resources, innovative learning materials which have been developed by a team of expert professionals that helps contribute towards obtaining competitive knowledge and skills in each subject.

### **Internships in companies**

Cesine guarantees that all its students undergo a comprehensive internship program, most are remunerated and carried out in relevant national and international companies, that allow students to complete their studies with around 2500 hours valuable practical experience in firms,

Cesine has signed more than 350 cooperation agreements with some of the most important national and international companies such as:

Banco Santander, La Caixa, Robert Bosch, Nuclenor Aspla, Armando Alvarez, Equipos Nucleares, La Caixa, Bankinter, Solvay, Saint Gobain Pipeline, Endesa, ONO, BSH Home Appliances, Fagor, Edscha, Teka Industrial, Global Steel Wire, Draka Comteq, Hergom Industries, Bridgestone-Firestone and Sidenor are some of the companies where Cesine students have implemented complex software development, or collaborated in other functional areas.

### **Internships in the best American multinational companies.**

The students have the opportunity to deepen their international training by joining American multinational companies through the international students program at American University. This is the most comprehensive internship platform, both in the private and public sectors, of all existing U.S. programs. This program includes companies and organizations such as Microsoft, Bell Aerospace, Oracle Corporation, U.S. Airways, the US Chamber of Commerce, Deloitte & Touche, American Commerce, World Bank, Treasury Department, Intelsat, International Monetary Fund.

### **Учебная программа**

#### **1-й курс**

Методология и технология
Основы математики I
Введение в программирование

Коммуникационные навыки
Деловой английский язык
Видеоигры
Основы математики II
Видеоигр дизайн и мультимедиа
Введение в базы данных
Деловой английский язык II
Введение в программирование II

### **2-й курс**

Расширенное проектирование баз данных
Администрирование
Администрирование сетей
Деловой английский язык III
Статистика для инженеров
Моделирование видеоигр
Операционные системы
ООП и линейные структуры
Компьютерные структуры и технологии
Методы проверки SW
Моделирование видеоигр II

### **3-й курс**

Сотовый телефон ИТ (на двух языках)
Программирование в Интернет и мультимедиа
Разработка программного обеспечения
Бизнес и экономические аспекты (на двух языках)
Архитектура ЭВМ
Программирование сервера

Промышленные технологии и программируемые автоматы
Пользовательский интерфейс
Электронная коммерция (на двух языках)
<b>4-й курс</b>
Искусственный интеллект и робототехника (на двух языках)
Расширенное Веб-программирование II
Распределенные системы
ИТ-системы безопасности и защиты (на двух языках)
Разработка ПО Управление проектами
Языковые процессоры
Конец исследований проекта

### **Information Technology Engineering consists of 240 ECTS**

Bachelor Honours Degree in Information Technology Engineering by the University of Wales.

Authorized learning by the Education Council of the Regional Government of Cantabria by way of resolution dated February 12th, 1999 and 1<sup>st</sup> October 2002.

Cesine complies with all the requirements when validating the degree at the Ministry of Education.

This degree also allows for access to official master programmes and doctorates in Spain, according to the R.D. 1393/2007, 29th October, which covers the establishment of official university programmes.

### **Enrolment Fees**

	<b>ITE (in-class model)</b>	
<b>Annual registration</b>	1,200 €	
<b>Academic course amount, October to June</b>	4,800 €	

Once having passed the Admission tests and having been accepted the student, in order to reserve a seat, must pay the entire amount of the annual **registration** and the 2 quarters.