

COMPUTER SCIENCES: INFORMATION TECHNOLOGY, SOFTWARE ENGINEERING

Information Technology and systems can play an especially important part in accelerating organizational growth



Information Technology and Systems encompassing Information and communication technologies (ICT) are central to the creation of a global knowledge-based economy and society. Information Technology and Information systems can play an especially important part in accelerating organizational and economic growth, eradicating poverty and promoting sustainable development in developing and transition economy countries and in facilitating their beneficial integration into the global economy. Employment of Information Technology and Information systems professionals is expected to grow faster than the average for all occupations through the year 2020. Job opportunities will be best for



applicants with a strong understanding of business and good communication skills. In the modern workplace, it is imperative that technology works both effectively and reliably. Information Technology and Information systems professionals play a vital role in the implementation of technology within their organizations. They do everything from helping to construct a business plan to overseeing network security to directing Internet operations.



Information Technology and Information systems experts need a broad range of skills. Employers look for Professionals who have experience with the specific software or technology used on the job, as well as a background in either consulting or business management. The expansion of electronic commerce has elevated the importance of business insight and, consequently, many computer and information systems Professionals are called on to make important business decisions. As computer systems become more closely connected with day-to-day operations of businesses, computer and information systems managers are also expected to be aware of business practices. They must possess strong interpersonal, communication, and leadership skills because they are required to interact not only with staff members, but also with other people inside and outside their organizations. They must possess team skills to work on group projects and other collaborative efforts. They also must have an understanding of how a business functions, how it earns revenue, and how technology relates to the core competencies of the business. As a result, many firms now prefer to give these positions to people who have spent time outside purely technical fields.



Information Technology and Information systems managers may advance to progressively higher leadership positions in the information technology department. A project manager might, for instance, move up to the chief technology officer position and then to chief information officer. On occasion, some may become managers in non-technical areas such as marketing, human resources, or sales because in high technology firms an understanding of technical issues is helpful in those areas.



The Centre for Professional Courses (CPS), a division of CTPD is offers tuition for Information Technology and Systems which are globally examined by internationally recognized institutions namely the British Computer Society (BCS), Institute for the Management of Information Systems (IMIS), London Chamber of Commerce & Industry Examinations Body (LCCIEB) and the City & Guilds Pitman. These qualifications provide relevant skills for the Information Technology (IT), Information and Communication Technologies (ICT) and Information Systems (IS) technicians, engineers and managers.

The Association of Computer Professionals (ACP)

www.acpexamboard.com



The Association of Computer Professionals (ACP) is an independent, professional examining body, set up in 1984. The Association's principal aim is to set and maintain standards of education, which reflect the constantly changing requirements of the computer industry, both in the United Kingdom and overseas. This is achieved through the provision of course syllabuses and examinations to our carefully vetted training centres around the world, which in turn provide the expert tuition. ACP aims to raise the standards for everyone involved in the IT industry. Exciting opportunities are available to those who are appropriately qualified, as is demonstrated by the success of so many ACP members who have found permanent, rewarding employment in multinational companies, government departments and universities around the globe. Rapid technological growth has placed increased demands on IT professionals. Whilst setting our sights on the highest levels of academic and professional achievement, we strive to make training accessible to anyone who wishes to embark on a career in IT.

Tutors will be teaching current material which reflects developments in hardware, software and applications. Each professional level has three written examinations and a practical component, all of which are compulsory. Each examination lasts two and a half hours and is conducted on a closed-book basis (candidates may not refer to notes or other reference material). Examination sessions for every subject are arranged three times each year as promulgated in ACP's examination calendar. This syllabus should be read in conjunction with the ACP's brochure on Student Information and with ACP Centre Notes.

Professional Courses

Certificate in Information Technology and Programming

Certificate Overview

Unless a student has prior computing qualifications and/or experience, they will enter at the level of the '**Certificate in Information Technology & Programming**'. At this level, emphasis is placed on the introduction, installation, operation and application of computers. Practical applications include databases, desk-top publishing, graphics, multimedia, networking, electronic communication, spreadsheets and web pages. Students will attend a course of at least 300 hours' duration, devoting a further 60 hours to project work.

What does it cover?
The Certificate in IT focuses on the following core modules:

- Information technology fundamentals
- Computer applications and operations
- Applied programming

Plus a Programming project

Candidates are required to obtain a Pass grade in three written papers, each carrying 100 marks and of two and a half hours duration, and a practical programming project (100 marks). In the first two written papers, (Information Technology Fundamentals and Computer Applications and Operations) there is a free choice of five questions from eight. In the Applied Programming paper, one question should be chosen from the three available.

Assessment

Entry Requirements

Our entry criteria are flexible and realistic, allowing entry at Certificate level to those with no previous computing experience.

The levels are normally taught on full-time courses (comprising each week 15 hours classroom tuition plus a minimum of 3 hours hands-on practical work). The Certificate and Diploma courses require a full academic year, typically 40 teaching weeks; the Advanced Diploma course is normally taught over a second academic year.

Duration & Hours

Diploma in Information Systems Analysis & Design

Diploma Overview	Successful examination candidates from the Certificate course may progress to the ' <i>Diploma in Information Systems Analysis & Design</i> '. During a further 6 month course, of no less than 300 hours' duration, students will develop their basic skills into the area of Systems Analysis & Design, Software Engineering and Business Information Systems . The course has a marked practical emphasis to ensure that candidates reach a level of programming competence sufficient to commence employment. During the course, candidates are also required to submit 6 Practical Diploma Assignments (2 for each subject at this level), typically requiring between around 16 hours for each assignment and using languages such as Java, Pascal or 'C'.
Modules:	<ul style="list-style-type: none"> ▪ Software engineering ▪ Business information systems ▪ Diploma assignments
Assessment	Candidates are required to obtain a Pass grade in three written papers, each carrying 100 marks and of two and a half hours duration, and a practical component comprising six individual assignments, two from each subject (totaling 100 marks). In each written paper, there is a free choice of five questions from eight.
Entry Requirements	Our entry criteria are flexible and realistic, allowing entry at Certificate level to those with no previous computing experience. The levels are normally taught on full-time courses (comprising each week 15 hours classroom tuition plus a minimum of 3 hours hands-on practical work). The Certificate and Diploma courses require a full academic year, typically 40 teaching weeks; the Advanced Diploma course is normally taught over a second academic year.
Duration & Hours	

Advanced Diploma in Computer Science

Diploma Overview	This course is open to successful graduates of the ACP Certificate and Diploma, or those who have been offered exemption from the lower levels on the basis of alternative qualifications and/or experience. Skills learned at first year level are developed to a standard appropriate for more senior positions within the IT industry. Students are required to submit 2 projects - a Programming Project in Java (the preferred choice, for reasons highlighted in ACP's syllabuses), Pascal or 'C' as well as an Individual Project in an approved subject. Each project can be expected to demand 60-80 hours' work by the candidate and will contribute to their overall examination result.
Modules:	<ul style="list-style-type: none"> ▪ Information systems principles and networking ▪ Information systems analysis and design; advanced programming ▪ Information systems management <p>Plus an Advanced diploma project work</p>
Assessment	Candidates are required to obtain a Pass grade in three written papers, carrying 100 marks and of two and a half hours duration, and a practical component (100 marks) comprising an individual project and a programming project. In each written paper there are two sections; five questions must be chosen from ten; at least two questions must be selected from each section.
Entry Requirements	Our entry criteria are flexible and realistic, allowing entry at Certificate level to those with no previous computing experience.