# COURSE SPECIFICATION

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| **Course Aim and Title** | BSc (Hons) Information Technology |
| **Intermediate Awards Available** | Ordinary Degree Dip HE, Cert HE |
| **Teaching Institution(s)** | UEL |
| **Alternative Teaching Institutions (for local arrangements see the final section of this specification)** | MAHSA University, Malaysia |
| **UEL Academic School** | Architecture, Computing and Engineering |
| **UCAS Code** | |
| **Professional Body Accreditation** | |
| **Relevant QAA Benchmark Statements** | Computing |
| **Additional Versions of this Course** | |
| **Date Specification Last Updated** | March 2019 |

# Course Aims and Learning Outcomes

The Bachelor of Information Technology (IT) course aims to provide a great influence on all aspects of life. Almost all workplaces and the living environment are being computerized. It is essential that the students are exposed to various aspects of Information Technology including its scope, operating a computer, use of various tools of MS office, and using the internet, etc. This exposure will enable the students to enter their professions with confidence, live in a harmonious way and contribute to productivity.

IT incorporates a number of specialist areas underpinning the digital technologies we use every day. Our course is taught by leading researchers who are pushing the boundaries of what is possible in this rapidly changing field to ensure you're up to date with the latest developments.

MAHSA University provides a well-structured course in collaboration with various industries and academia. The curriculum provides the necessary industrial application and technological skills with the capability to apply relevant computing skills with strong critical thinking, analysis and teamwork.

## Knowledge

- understand and demonstrate the knowledge, principles and skills in Information Technology
- contribute significantly to the analysis, design or the development of systems that are complex
- recognise the important relationships between various applications and able to apply thinking skills to be creative and innovative in the application development

## Thinking Skills

- explore opportunities relevant to many aspects of computing skills like programming, networking, and physical prototyping
- critically evaluate and review both their own work and the work of others

## Practical Skills
- demonstrate knowledge and responsibility of the societal, health and safety relevant to IT practice.
- identify, analyse and apply appropriate techniques, resources and modern tools to solve IT-related problems.
- design solutions for systems, components or processes for IT-related problems.
- demonstrate competency in management and entrepreneurship.

## Skills for Life and Work
- engage in independent and life-long learning consistent with technological change.
- understand and commit to ethics, professionalism and norms of IT practice.
- communicate effectively, demonstrate leadership and teamwork with the community and society.

**Bachelor in Information Technology graduates may involve in positions such as:**

- Software Engineers
- System Engineers
- Network Engineers
- System Architects
- Database designers
- Solution Architects
- IT Researcher
- IoT specialists

You'll learn the main areas of the discipline, including Software Engineering, Artificial Intelligence, Information Security and Data Analytics, as well as Computer Systems, Computer Architecture and Data Structures. In addition to the technical knowledge you'll need to pursue a career in this field, you'll learn about the impact of technology on individuals, organisations and society. With a work-based learning module embedded within the course, you'll also have the chance to develop your skills in the workplace and enhance your CV. You also have the unique opportunity of getting professional certifications from Microsoft and EC council while studying at MAHSA.

The course promotes student-centred learning, problem-based learning, and hands-on training which will help the students develop critical thinking and problem-solving skills.

To complement the theory and practical study, MAHSA incorporates a well-structured internship course in collaboration with various software development industries into the curriculum. The curriculum provides the necessary industry application technological skills with the capability to apply relevant programming skills with strong critical thinking, analysis and teamwork.

# Learning and Teaching

Knowledge is developed through
- attending lectures/guest presentations
- engaging with formative tutorial work
- actively participating in design and project work
- guided-reading
- knowledge-based activities with feedback
- online-discussions and activities
- attending lectures/seminars through guest speakers from the professional institutions

Thinking skills are developed through
- analytical assessment of data
- solving tutorial problems
- critical assessment of information
- problem-solving practical applications
- research projects
- reflective activities with feedback
- tutorial activities & discussions
- online discussions and activities

Practical skills are developed through

- drawing and design
- field courses and site visits
- applying technical regulations to given scenarios
- application to real-life and simulated case studies
- IT activities with feedback
- research skills-based activities with feedback
- seminar preparation and presentations

Skills for life and work (general skills) are developed through
- interactive communication exercises
- individual and group work sessions
- the demands of the study medium
- planning activities with feedback
- project and teamwork
- using specialist software

## Assessment

Knowledge is assessed by
- time-constrained examinations
- laboratory and fieldwork exercises
- assignments, design and project work

Thinking skills are assessed by
- approach to solving problems
- analysis of alternative solutions
- practical solutions to complex tasks

Practical skills are assessed by
- laboratory reports and experimental assessment
- group survey work
- application to practical problem-solving

Skills for life and work (general skills) are assessed by
- oral presentations
- written communication exercises
- drawing, sketching and design work
- team project work
- use of specialist software

Students with disabilities and/or particular learning needs should discuss assessments with the Course Leader to ensure they can fully engage with all assessments within the course.

## Work or Study Placements

Students, who have come directly to the BSc Information Technology course, can undertake an Industrial training between the second and third year of study. Alternatively, some arrange work experience over the summer.

# Course Structure

All courses are credit-rated to help you to understand the amount and level of study that is needed.

One credit is equal to 10 hours of directed study time (this includes everything you do e.g. lecture, seminar and private study).

Credits are assigned to one of 5 levels:

3: Equivalent in standard to GCE 'A' level and is intended to prepare students for year one of an undergraduate degree course.
4: Equivalent in standard to the first year of a full-time undergraduate degree course.
5: Equivalent in standard to the second year of a full-time undergraduate degree course.
6: Equivalent in standard to the third year of a full-time undergraduate degree course.
7: Equivalent in standard to a Master's degree.

Courses are made up of modules that are each credit weighted.

The module structure of this course:

| Level | Module Code | Module Title | Credit Weighting | Core/ Specialisation | Available distance learning Y/N |
|---|---|---|---|---|---|
| 4 | CS401 | Information Technologies and Management | 20 | Core | N |
| 4 | CS402 | Mathematics for Computing | 20 | Core | N |
| 4 | CS403 | Academic Skills | 20 | Core | N |
| 4 | CS404 | Computer Architecture and Networks | 20 | Core | N |
| 4 | CS405 | Data Structures & Algorithms | 20 | Core | N |
| 4 | CS406 | Database and Environmental Management | 20 | Core | N |
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| Level | Module Code | Module Title | Credit Weighting | Core/Option | Available distance learning Y/N |
|---|---|---|---|---|---|
| 5 | CS501 | Computer Security and Management | 20 | Core | N |
| 5 | CS502 | Web and Mobile Application Development | 20 | Core | N |
| 5 | CS503 | Advanced Programming | 20 | Core | N |
| 5 | CS504 | Software Development | 20 | Core | N |
| 5 | CS505 | Data Management 1 | 20 | Specialisation 1 | N |
| 5 | CS506 | Data Management 2 | 20 | Specialisation 1 | N |
| 5 | CS507 | Games Computing 1 | 20 | Specialisation 2 | N |
| 5 | CS508 | Games Computing 2 | 20 | Specialisation 2 | N |
| 5 | CS509 | Mobile Computing 1 | 20 | Specialisation 3 | N |
| 5 | CS510 | Mobile Computing 2 | 20 | Specialisation 3 | N |
| 5 | CS511 | Network Computing 1 | 20 | Specialisation 4 | N |
| 5 | CS512 | Network Computing 2 | 20 | Specialisation 4 | N |
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| 6 | CS601 | Entrepreneurship | 20 | Core | N |
| 6 | CS602 | Research Project | 40 | Core | N |
| 6 | CS603 | Industrial Training | 20 | Core | N |
| 6 | CS604 | SQL Programming | 20 | Specialisation 1 | N |
| 6 | CS605 | Database Technologies | 20 | Specialisation 1 | N |
| 6 | CS606 | Multimedia and Animation | 20 | Specialisation 2 | N |
| 6 | CS607 | Prototyping and iterating game designs | 20 | Specialisation 2 | N |
| 6 | CS608 | Mobile Game Development | 20 | Specialisation 3 | N |
| 6 | CS609 | XML and WEB services | 20 | Specialisation 3 | N |
| 6 | CS610 | Adhoc and Sensor Network | 20 | Specialisation 4 | N |
| 6 | CS611 | High Speed Network | 20 | Specialisation 4 | N |

*Please note: Specialisation modules might not run every year, the course team will decide on an annual basis which specialisations will be running, based on student demand and academic factors, in order to create the best learning experience.*

*For example: the specialisation modules are offered to students based on their area of interest during the reenrollment, subject to having one fourth of the total number registered.*

Additional detail about the course module structure:

Part-time day release students would normally study 60 credits per academic year and follow the same structure as noted for full-time study.

A core module for a course is a module which a student must have passed (i.e. been awarded credit) in order to achieve the relevant named award. An specialisation module for a course is a module selected from a range of modules available on the course.

The overall credit-rating of this course is 360 credits for the BSc Hons. If, for any reason, you are unable to achieve this credit, you may be entitled to an intermediate award; the level of the award will depend on the amount of credit you have accumulated. You can read the University Student Policies and Regulations on the UEL website.

## Typical Duration

It is possible to move from full-time to part-time study and vice-versa to accommodate any external factors such as financial constraints or domestic commitments. Many of our students make use of this flexibility and this may impact on the overall duration of their study period.

The expected duration of this course is 3 years full-time or 6 years part-time.

A student cannot normally continue study on a course after 4 years of study in full time mode unless exceptional circumstances apply and extenuation has been granted. The limit for completion of a course in part time mode is 7 years from first enrolment.

## Course Specific Regulations

This course can provide the underpinning educational base for the 'Software Developer/IT Executive' Degree apprenticeship.

This course in Malaysia does not currently have professional body accreditation but students are strongly encouraged to make individual applications for membership at professional institutions.

The School hosts a regular course of site visits open to all students on various software development institutions. Students will benefit from visiting some of the most prestigious corporates in Malaysia.

# Further Information

More information about this course is available from:

- The MAHSA University ([www.mahsa.edu.my](www.mahsa.edu.my))
- The Course Handbook
- Module study guides
- Course information ([mahsa.edu.my/faculties/Business/bachelor-information-technology.php](mahsa.edu.my/faculties/Business/bachelor-information-technology.php))
- The UEL web site ([www.uel.ac.uk](www.uel.ac.uk))
- UEL Manual of General Regulations (available on the UEL website)
- UEL Quality Manual (available on the UEL website)
- School web pages

All UEL courses are subject to thorough course approval procedures before we allow them to commence. We also constantly monitor, review and enhance our courses by listening to student and employer views and the views of external examiners and advisors.

**Additional costs:**

Occasional additional costs may incur in field trips or specialist equipment that you may wish to purchase for group projects.

# Alternative Locations of Delivery

There is no alternate locations .This course will run only at Saujana Putra Campus, Kuala Lumpur, Malaysia.