

BSc (Hons) Computer Science



INFORMATICS
INSTITUTE OF
TECHNOLOGY

UNIVERSITY OF
WESTMINSTER



Why Follow This Programme

The BSc (Hons) Computer Science degree provides a comprehensive foundation in computing, equipping students with the knowledge, technical expertise, and practical skills required to thrive in today's rapidly evolving digital landscape. The programme is designed to prepare graduates to contribute to the development of innovative technological solutions that support the needs of modern businesses and organisations.

Throughout the course, students gain a broad understanding of core computing principles while developing specialist knowledge in areas such as Computer Engineering, web design and development, mobile application development, game and graphics development, and creative computing. The curriculum combines theoretical knowledge with practical application, enabling students to develop strong problem-solving, analytical, and technical skills.

A distinctive feature of the programme is its flexibility, allowing students to tailor their studies to their interests and career aspirations. Through a range of specialist modules, students can create a customised pathway within Computer Science, ensuring they graduate with a skill set aligned with their chosen area of expertise and the demands of the industry.

Aim of the programme

- Provide a strong foundation in core areas of Computer Science, including programming, web design, and databases.
- Develop knowledge of key computing principles and technologies that support modern digital systems.
- Introduce students to the full software development lifecycle, from analysis and design to implementation and maintenance.
- Offer opportunities to explore specialist pathways such as game development, mobile apps, data science, and computer engineering.

- Build practical, industry-relevant skills using modern tools, technologies, and professional development practices.
- Enhance problem-solving, critical thinking, and independent learning skills to prepare students for further study and future careers in computing.

Course structure – Core and Optional modules (Semester Wise)

– Full Time _____

Year	Semester	Module	Core/ Optional	Credits
Year 1 - (Level 4 - Certificate of Higher Education)				
1	1	Software Development I Introduction to programming principles and software development processes.	Core	20
	1	Mathematics for Computing Key mathematical concepts like logic and algorithms, essential for computing problem-solving.	Core	20
	1	Computer Systems Fundamentals Insight into the operation of computers, from hardware to software interactions.	Core	20
	1	English Communication Skills Develops essential English language skills for academic and professional success in IT. It focuses on improving speaking, listening, reading, and writing through practical tasks such as emails, reports, and presentations.	Core	N/A
	2	Foundations of professional computing Develops practical computing skills through real-world challenges and modern technologies. learn to analyse problems, develop solutions, and apply professional standards in areas such as AI, data protection, and ethics.	Core	20
	2	Software Development II A deeper dive into advanced programming concepts and the development of more complex systems.	Core	20
	2	Web Design and Development Learn how to design and develop websites and web applications using HTML, CSS, JavaScript, and server-side technologies.	Core	20

Year 2 (Level 5 - Diploma of Higher Education)				
2	1	Object Oriented Programming Software design using object-oriented principles like inheritance and polymorphism.	Core	20
	1	Database Systems Understanding database design, management, and querying.	Core	20
	2	Client-Server Architectures Exploration of the architecture behind systems where clients interact with central servers.	Core	20
	Year	Agile Team Project Provides hands-on experience in developing a real-world software prototype through teamwork and industry guidance.	Core	20
	Year	Professional Development Develops key employability, communication, and self-management skills for IT careers through practical activities. It builds CV writing, interview, teamwork, and presentation skills, preparing students to work confidently and professionally in industry environments.	Core	N/A
ANY TWO Optional modules from following list Please note: Not all option modules will necessarily be offered in any one year.				
Mobile and Web Computing Theme				
2	1	Advanced Client-side Development Building user-facing web apps.	Optional	20
	2	Mobile Application Development Creating apps for Android and iOS.	Optional	20
	2	Backend Web Development Backend development using databases and server management.	Optional	20

Usability and Interaction Theme				
2	1	HCI & User Experience Designing intuitive systems for users.	Optional	20
	1	3D Interactive Media Development Creating interactive 3D media.	Optional	20
	2	XR & Multimodal Interaction Exploring virtual and augmented reality (VR/AR) technologies.	Optional	20
Data Science Theme				
2	2	Data Structures and Algorithms Fundamental algorithms and data structures, including trees and graphs. Students learn key problem-solving techniques such as searching, sorting, and pathfinding, while developing skills in algorithm design and analysis.	Optional	20
	2	Practical Machine Learning Develops practical skills in machine learning and data mining, covering the complete data lifecycle from preparation and modelling to validation and optimisation.	Optional	20
Games and Computer Graphics Development Theme				
2	1	Game Engine Architecture Designing game engines and their core components.	Optional	20
	2	Maths and Physics for Games Mathematical and physical principles in game development.	Optional	20
	2	XR & Multimodal Interaction Focus on immersive, interactive gaming experiences.	Optional	20
Computer Engineering Theme				
2	1	Robotic Principles Basics of robotics, design, and control systems.	Optional	20
	1	Sensors and signals Working with sensors and processing physical data.	Optional	20
Award of Diploma of Higher Education available				

Year 3				
3	Year	*Computer Science Placement (Year) In Year 3, students have the option to complete an industrial placement, which provides valuable real-world experience and enhances employability. This year-long placement enables students to apply their academic knowledge in a professional setting, contributing to their development as confident, industry-ready professionals. Although industrial placement is optional, it offers a unique opportunity to build professional networks, improve CVs, and gain a competitive edge in the job market. Students who choose not to take the placement year can continue directly to their final year.		120
Year 4				
4	Year	Computer Science Final Year Project An independent project where students demonstrate their research and development capabilities by tackling a real-world problem.	Core	40
	1	Applied AI Exploration of AI techniques, including machine learning and computer vision, and their practical applications.	Core	20
	2	Cyber Security Study of how to protect systems and data from threats, focusing on encryption, ethical hacking, and network security.	Core	20
ANY TWO Optional modules from following list Please note: Not all optional modules will necessarily be offered in a given Academic year				
Mobile and Web Computing Theme				
4	1	iOS Application Development Introduces machine learning and data mining through practical work. Students learn to prepare data, build and evaluate models using different algorithms. It also covers key challenges when applying these methods to real-world data.	Optional	20
	2	Distributed Systems and DevOps Engineering Explores techniques for building advanced applications using microservices architecture.	Optional	20

Usability and Interaction Theme				
4	1	Usability Testing and Evaluation Evaluating digital systems' usability.	Optional	20
	2	Advanced Interactive Media Development Building immersive apps and games with advanced features.	Optional	20
	2	Digital Marketing, Social Media and Web Analytics Strategies for digital marketing and improving online performance.	Optional	20
BIS (Business Information Systems) Theme				
4	1	Digital Strategy Develop the knowledge to apply Information Systems (IS) and Information Technology (IT) to drive business strategy, digital transformation, and organisational performance.	Optional	20
	2	Information Driven Entrepreneurship and Enterprise Leveraging data for business innovation.	Optional	20
Data Science Theme				
4	2	Operational Research and Optimisation Optimising systems for decision-making and operations.	Optional	20
Games and Computer Graphics Development Theme				
4	1	Game AI Developing artificial intelligence for video games.	Optional	20
	2	Advanced Interactive Media Development Creating complex interactive media such as 3D games.	Optional	20

Computer Engineering Theme				
4	1	Applied Robotics Designing and programming robotic systems.	Optional	20
	2	Internet of Things Creating smart devices that communicate over the internet.	Optional	20

Delivery Modes

- The course will be offered
 - Full time mode - Weekdays and Weekends
 - Weekday Schedule - Monday - Friday 8.30 A.M - 5.30 P.M (Based on the scheduled lecture slots)
 - Weekend Schedule - Saturday & Sunday 9.00 A.M - 5.00 P.M (Based on scheduled lecture slots)
 - Part Time mode
- Delivery method can be Online or Physical depending on the module.

Duration

- Full time - 4 Years
- Part time - 5 Years

Exam Styles

- Online In- Class Tests
- Written Examinations
- Lab based Practical Examinations
- Courseworks with VIVAs

Employability & Workplace Opportunities _____

Potential Careers

- Career opportunities (Employability and work placement opportunities):
 - Software Engineer / Senior Software Engineer
 - Data Scientist / Data Analyst
 - Mobile Application Developer
 - UI/UX Engineer
 - Game Developer

Admission Requirements _____

Students are required to meet the following O/L requirements:

- G.C.E. Ordinary Level Examination: Minimum of 6 passes, including at least 3 credits with Mathematics and English.
- Cambridge/Edexcel O/L: Minimum of 5 passes, including 3 credits with Mathematics and English.

A/L Stream	Special Notes	Entry Points
Physical Science		12
Biological Science		12
Technology	With Mathematics	12
Technology		14
Commerce	If IT /Business Statistics is a main subject	12
Commerce		14
Art	If IT /Business Statistics/Mathematics is a main subject	18

Please refer to the points awarded according to the A/L results below:

Local/ London Result	Awarded Points
A	10
B	8
C	6
S/D	4
E	2

Or Foundation Certificate in Higher Education from IIT

Or Recognised foundation programme (Subject to approval by the academic committee)

Pending Local or London A/L Results

Students will receive a conditional offer subject to the following:

Students must submit their archived A/L results documentation to the IIT registry department within 5 working days of the official release of the A/L results.

Students who do not meet the entry requirements for the undergraduate programme will be transferred to the IIT Foundation Certificate in Higher Education Immediately.

Foundation Certificate in Higher Education

Obtain a minimum of 6 passes in the Local GCE Ordinary Level examination, including at least three credit passes (with credit passes in English and Mathematics).

Or

Obtain a minimum of 5 passes in the London GCE Ordinary Level examination, including at least three credit passes (with credit passes in English and Mathematics).

Intakes & Admission Process

The Bsc(Hons) Computer Science degree offers intakes in January, and September, providing students with flexibility to begin their studies at a convenient time.

Local students (Sri Lankan nationals) interested in IIT's programmes can contact the marketing department at the hotline +94 766 760 760. Please note that an interview with prospective students is mandatory as part of the admission process.

International students (including resident foreign nationals) currently residing or visiting Sri Lanka should contact the IIT marketing department at +94 766 760 760. If applying from their home country, please email info@iit.ac.lk for assistance during the registration process. After submitting the application with the required documents (listed below), candidates will be interviewed via Skype.

Upon acceptance, a Conditional Offer Letter will be issued for visa processing. Please note, that the visa letter will only be provided after receiving the Registration Fee and the Year 1 Course Fee.

Documents Required

1. Completed application form
2. Relevant educational certificates (O/L and A/L) - Originals or certified copies
3. Birth certificate - Original or certified copy
4. NIC/Passport - Original and copy (International students must provide a valid passport for the duration of the programme)
5. Parent/Guardian NIC/Passport - Original and copy
6. One reference letter with a signature (Referee's letter must be on letterhead or have a seal)

Awarded University

UNIVERSITY OF WESTMINSTER

Scholarships Available



UGC
Recognized