COURSE SPECIFICATION:
Core Award Data

BSc (Hons) Artificial Intelligence and Data Science (Session 2024-25)

VALIDATION DATE

04 May 2020

AWARDING INSTITUTION

Robert Gordon University

INSTITUTION OF DELIVERY

Informatics Institute of Technology, Sri Lanka

COURSE ACCREDITED /RECOGNISED/ APPROVED BY

None.

COURSE ACCREDITATION / RECOGNITION /APPROVAL

None.

AWARDS

Stage 1

Students are awarded a CertHE Artificial Intelligence and Data Science on completion of 120 SCQF credits (excluding the additional CM1607 *English Communication Skills* module)

Stage 2

Students are awarded a DipHE Artificial Intelligence and Data Science on completion of 240 SCQF credits.

Stage 3

Students are awarded a BSc Artificial Intelligence and Data Science on completion of 360 SCQF credits.

Stage 4

Students are awarded BSc (Hons) Artificial Intelligence and Data Science on completion of 480 SCQF credits.

AWARD TYPE

Undergraduate

MODES OF STUDY

Full-time blended learning

DURATION OF COURSE

The course will normally be delivered and assessed over the following duration(s). Please note the period from enrolment to final assessment will depend on the point of intake and scheduled University breaks.

Full time: 4 years.

The course has two intakes in September and January.

The maximum period of enrolment for the course is 6 years.

LANGUAGE OF STUDY

English

LANGUAGE OF ASSESSMENT

English

RELEVANT QAA SUBJECT GROUP

Computing

DATE OF PRODUCTION / REVISION

1 April 2024 (Version 3)

INTRODUCTION TO THE COURSE

The course is a collaboration between Robert Gordon University (RGU) in Scotland and the Informatics Institute of Technology (IIT) in Sri Lanka. IIT design, deliver and assess the course and RGU quality assure and confer awards for the course.

There is a rise in the demand for a workforce with skills in artificial intelligence and data science with the rapid enhancement of computer technologies in the 21st century. However, there is a skills shortage to meet the industry demands in this domain. This course is designed to address this shortage, as well as provide the opportunity for students aspiring to a career in artificial intelligence and data science.

Students will be able to gain practical understanding of contemporary data science trends and technologies in developing cutting-edge data science solutions. Specifically, the course adopts a general to specific organisation of modules; whereby initially a range of modules organised under key streams; systems, programming and artificial intelligence and data science is gradually specialised into modules as students progress through Stages 1 to 4. More broadly, all modules can also be categorised into key knowledge categories such as programming, algorithms, machine learning, mathematics and statistics, where students are exposed to both theoretical principles and cutting-edge technological advances. This will enable students to unlock the power of

automation, analytics and artificial intelligence, paving the way for innovation while on the course and after graduation.

Industrial placement during the third year is a unique and mandatory feature of this course. Providing students the opportunity to gain industrial experience in artificial intelligence and data science through hands-on engagement with trending data science technologies, their applications and best practices to solve real world problems.

Additionally, in the final year students are provided with the opportunity to specialise and conduct research in significant areas associated with artificial intelligence and data science as per the students' preferences via applying their knowledge gained through the taught aspects of the course and the practical exposures gathered during the placement year.

The course allows the student to plan their academic learning effectively. In addition to on campus engagement for lectures, tutorials and lab sessions, with RGU's supported online learning platform and tools, students have flexibility to engage in their academic studies around personal commitments. Some of the modules taught in the course which includes CM1601 Design Lectures, CM1607 English Communication Skills, CM2603 Data Science Group Project, and the modules delivered in Stage 3 for placement students (CM3604 Deep Learning, CM3602 Internet of Things Wearables and CM3603 Edge AI, will delivered online. Online learning can be accessed 24/7, relevant to the modules undertaken and includes the use of multimedia interactive activities, podcasts, quizzes, webinars and forum discussions, thus providing an engaging and motivating learning experience.

Students are supported through the course to achieve professional excellence through a suite of modules designed to develop academic, personal and interpersonal skills. They will be encouraged to develop an enquiring, analytical, open minded and creative approach to foster independent judgement, critical self-awareness, the ability to reflect, and an appreciation of the wider context of the course of study. These skills will be developed and practiced both in the context of the academic environment and in their placement workplace. Ultimately, by generating a deep interest and enthusiasm for artificial intelligence and data science, students and graduates will be motivated to continually update their knowledge and understanding within the context of a rapidly changing technological, political, social and economic environment.

Depending on the nature of the organisation, typical examples of career opportunities across a broad range of sectors, might include: data/enterprise architect, application architect, data scientists, machine learning scientist, machine learning engineer, data analyst, software engineer and an array of specialist positions. However, in many organisations, there may be specific elements of the course content involved in the role which are not reflected in the job title but which are a key component within it.

EDUCATIONAL AIMS OF THE COURSE

The course aims to:

- Design effective and logical computational solutions to resolve moderate to complex real-world problems.

- Apply mathematical and statistical techniques to analyse, model and provide valid interpretations associated with complex datasets.
- Demonstrate competence on programming and database concepts, data structures and algorithms, artificial intelligence techniques to develop sophisticated software solutions.
- Evaluate, visualize and communicate results of models developed using valid scientific methods.
- Formulate, design, plan, coordinate and evaluate medium to large scale artificial intelligence and data science projects.

Aims of Each Stage of the Course

Stage 1 (Certificate of Higher Education)

- To demonstrate knowledge and understanding of fundamental concepts of programming, database systems design and implementation, web techniques, computational mathematics with statistical techniques for data analysis and data structures and algorithms for artificial intelligence.
- To demonstrate the knowledge and understanding, and application of skills through theoretical and practical problem-solving activities.

Stage 2 (Diploma of Higher Education)

- To demonstrate awareness and understanding of the concepts and techniques related to machine learning and artificial intelligence.
- To demonstrate the understanding of programming and design concepts required for building real-world applications.
- To develop a data science related project by applying suitable software development methodologies, development practices and standards incorporating necessary skills while collaborating within a team.

Stage 3 (BSc)

- To demonstrate an in-depth knowledge and understanding of how artificial intelligence and data science techniques are used in industry or research.
- To critically evaluate skills and abilities and to identify the strengths and weaknesses of problem-solving approaches in a real-world environment.
- To evidence an understanding of the wider field of artificial intelligence and data science and its impact on society.
- To demonstrate academic and professional skills to effectively interact with others in a group working context, demonstrating ethical and professional work practices.

Stage 4 (BSc (Hons))

- To demonstrate adaptability for employment in industry and commerce in a rapidly changing environment while undertaking research and self-study.

- To develop software development and practical skills by undertaking a substantial individual project.
- To undertake the development of computer-based systems for a variety of problem domains that require the application and synthesis of advanced programming techniques which are informed by current research trends.
- To implement problem solutions on a range of target platforms with the ability to critically evaluate the feasibility, security, and usability of the proposed solutions.
- To evaluate and utilise appropriate tools and frameworks in the planning, design, implementation, testing, and analysis of software solutions and data systems.
- To cooperate in an effective manner with colleagues and assume an active role in the planning and implementation of a software project, both as an individual and as an effective member of a small development team.

LEARNING OUTCOMES

Stage 1 – SCQF Level 7

Knowledge and Understanding

The student is expected to:

- Demonstrate a basic knowledge and understanding of mathematics, web technologies, fundamentals of computer systems, database systems design and implementation and basics of programming.
- Demonstrate knowledge and understanding of mathematical principles required for solving data science problems, which will also form the foundation for forthcoming data science modules.
- Demonstrate the basic understanding of computer science principles and related subject disciplines. The student is introduced to the required skills and knowledge for employing basic tools and techniques.

Practice: Applied Knowledge and Understanding

The student is expected to:

- Apply knowledge, skills and understanding of mathematical principles, web technologies, database design and implementation in practical contexts.
- Study in a systematically directed way with the aid of appropriate tutor guidance within the classroom and laboratory. All topics include elements, which require and encourage the development of these skills.
- Carry out routine inquiry, development or investigation into professional level problems and issues.

Generic Cognitive Skills

The student is expected to:

- Apply basic computer science and mathematical principles following procedures along with basic tools and techniques to solve standard, simple problems.
- Demonstrate the ability to analyse a data science problem and visualise data based on the specification provided.
- Display the ability to form one's own assessment based on criteria provided.

Communication, ICT and Numeracy Skills

The student is expected to:

- Demonstrate written and oral communication skills required to describe computer science aspects in an understandable and concise manner.
- Demonstrate practical skills in web technologies and database design and implementation using basic ICT applications.
- Demonstrate numerical and graphical skills necessary for data manipulation.

Autonomy, Accountability and Working with Others

The student is expected to:

- Exercise some managerial or supervisory responsibility for the work of others within a defined and supervised structure.
- Lead in implementing agreed plans in familiar or defined contexts, while taking account of your own and others' roles and responsibilities when carrying out and evaluating tasks.
- Work, under guidance, with others to acquire an understanding of current professional practice, managing limited resources within defined areas of work.

Stage 2 – SCQF Level 8

Knowledge and Understanding

The student is expected to:

- Demonstrate the knowledge associated with advanced mathematical theorems for artificial intelligence and data science and define intelligent problem-solving methods and their applications associated with philosophical and cognitive theory in artificial intelligence.
- Demonstrate knowledge and understanding of various modelling techniques, types of processes and probabilistic techniques in data modelling.
- Demonstrate a discerning understanding in identifying and comparing contemporary software development methodologies, project management methodologies, quality assurance standards related to innovation for producing data science software.

- Demonstrate an awareness and understanding of ethical, social, professional and legal issues associated with managing datasets and use of machine learning models in the real-world.

Practice: Applied Knowledge and Understanding

The student is expected to:

- Apply knowledge, skills and understanding in identifying, contrasting and applying advanced theories, concepts, specific tools and techniques for solving real world problems in artificial intelligence and data science.
- Apply knowledge, skills and understanding in selection of an appropriate evaluation technique and the application of appropriate data mining techniques to a given problem.
- Apply knowledge, skills and understanding in using a range of professional skills, techniques, practices and appropriate tools in line with suitable software development methodology to meet a designated set of requirements and standards.

Generic Cognitive Skills

The student is expected to:

- Compare and contrast reasoning and knowledge representation strategies used in artificial intelligence.
- Use a range of approaches to formulate and critically evaluate, contrast and apply suitable techniques related to artificial intelligence problem solving.
- Apply appropriate techniques related to advanced mathematical concepts and theorems and apply them to simulate the real-world processes.
- Analyse user centred design process, cognitive aspects, research methods, modelling and prototyping used to produce applications related to solving real-world data science problems.

Communication, ICT and Numeracy Skills

The student is expected to:

- Analyse legal, ethical, and professional issues in the context of intelligent systems solutions for real-world applications.
- Apply a selection of advanced numerical, modelling and design skills, relevant to specialised areas of data mining, simulation, software development and artificial intelligence.
- Use a wide range of specialised skills, techniques and standard applications associated with conveying complex information as well as evaluate numerical and graphical data for real-world applications related to artificial intelligence and data science.

Autonomy, Accountability and Working with Others

The student is expected to:

- Develop skills necessary to collaborate within a team on a software development project.
- Exercise autonomy and initiative at a professional level in practice for the work of others within a defined structure.
- Work under guidance with others to acquire an understanding of current professional practice and managing resources within defined areas of work.
- Manage under guidance ethical and professional issues in accordance with current professional and/or ethical codes or practices.

Stage 3 – SCQF Level 9

Knowledge and Understanding

The student is expected to:

- Demonstrate a critical understanding of the strengths and limitations of artificial intelligence and deep learning technologies and an awareness of related ethical issues.
- Display a critical understanding of a range of the principles, theories, concepts, terminologies and frameworks related to artificial intelligence and data science.
- Demonstrate skills, attitudes, and behaviours appropriate to the workplace, including but not limited, to technical skills, communication skills, planning and organisational skills, and personal and professional skills.

Practice: Applied Knowledge and Understanding

The student is expected to:

- Design and develop effective applications by using appropriate tools and techniques for a given requirement specification associated with artificial intelligence and data science.
- Demonstrate applied knowledge of specialised skills in the development of intelligent systems using relevant deep learning techniques to solve real-world problems and awareness of strengths and limitations of such technology.
- Design, implement and evaluate an Internet of Things (IoT) or Edge artificial intelligence application using appropriate tools and techniques for a given requirement specification.
- Apply theories, models, concepts and principles acquired during the course to the workplace.

Generic Cognitive Skills

The student is expected to:

- Test and critically evaluate functionalities and security implications in the development of IoT or Edge computing scenarios.

- Demonstrate the ability to critically analyse, select and use principles and procedures systematically to real-world situations or problems related to deep learning and IoT or edge computing.
- Critically appraise theory, process, solutions and outcomes based on experiences within the work-based learning environment.
- Investigate professional problems and issues encountered when deploying IoT or Edge computing-based solutions.
- Recognise and reflect their own strengths and weaknesses as computing professionals in an organizational environment.

Communication, ICT and Numeracy Skills

The student is expected to:

- Demonstrate evidence of, and reflect on new learning of knowledge, skills and abilities acquired for effective practice in the IT industry.
- Confidently and accurately select principles and procedures to solve a range of professional situations and problems, working with increasing autonomy in a work-based environment.

Autonomy, Accountability and Working with Others

The student is expected to:

- Demonstrate evidence of, and reflect on new learning with regard to knowledge, skills and abilities required for effective practice in the computing industry.
- Maintain standards and quality control as applied to specification, production, implementation and maintenance of data science applications, in accordance with current professional and ethical codes of practices.
- Manage own learning, with minimal guidance, using a wide range of resources appropriate to the profession, seeking and making effective use of feedback.
- Interact effectively within groups where appropriate, develop interaction and interpersonal communication skills with customers and other stakeholders.

Stage 4 – SCQF Level 10

Knowledge and Understanding

The student is expected to:

- Demonstrate an understanding of the context of, and relationship between, the principal areas, features, techniques, boundaries, terminology and conventions of artificial intelligence and data science.
- Demonstrate confident familiarity and critical understanding of defining concepts and features of their chosen area of artificial intelligence and data science.

- Demonstrate appropriate IT project management expertise, professional and ethical conduct, in-depth technical, problem solving and communication skills in the conduct of an individual research project.
- Demonstrate a detailed knowledge and understanding in artificial intelligence and data science specialisms.

Practice: Applied Knowledge and Understanding

The student is expected to:

- Apply knowledge, skills and understanding in specialist data science areas, including intelligent information retrieval, natural language processing, computational intelligence, machine vision and their use in real-world applications.
- Apply practical knowledge of data science to execute a defined project of research, development or investigation in the individual research project.
- Be able to keep up-to-date with the latest trends and applications in data science, demonstrating awareness of challenges to data science posed by real-world applications.
- Practice in a range of professional level contexts that include a greater degree of unpredictability and specialism in artificial intelligence and data science systems.

Generic Cognitive Skills

The student is expected to:

- Confidently and accurately select application of principles and procedures to solve a range of professional situations and problems, working autonomously, particularly within the individual research project.
- Critically appraise as well as present current and emerging trends in artificial intelligence and data science and how they affect the development of intelligent systems.
- Formulate and analyse complex problems in an increasingly independent, confident and flexible way, applying knowledge and skills appropriate to their solutions.
- Critically review and consolidate knowledge, skills, practices and thinking in the domain of artificial intelligence and data science.

Communication, ICT and Numeracy Skills

The student is expected to:

- Demonstrate use and access a broad selection of specialist computing skills, tools and techniques for the individual research project.
- Engage effectively in independent roles, debate in a professional manner, and produce detailed critiques and coherent project reports underpinned by appropriate metrics for the individual research project.

- Use effective means of communication to present, convey and express complex ideas and information, about specialised topics to inform audiences related to the individual research project, formally and informally.

Autonomy, Accountability and Working with Others

The student is expected to:

- Manage own learning with minimal guidance, using a wide range of resources while seeking and making effective use of feedback provided from academic supervisors particularly to the individual research project.

- Maintain monitoring of standards and quality control as applied to the specification, production, implementation and maintenance of data science systems in accordance with current professional and ethical codes and practices.

DISTINCTIVE FEATURES OF COURSE

BSc (Hons) Artificial Intelligence and Data Science is a four-year course, with a one-year full-time placement in its third year. A credit bearing placement year is a unique selling point as students acquire one year of work experience prior to graduation. This enriches their final year experience and at the same time increases the chance of securing employment on graduation.

The course content provided in a logical manner gradually develops students' knowledge and skills in artificial intelligence and data science. This will enable them to become experts in two complementary disciplines which have a high demand locally and globally.

Main unique features include:

- A substantial project module in second year, in the form of a **data science group project**. This will allow the student to practically experience the theoretical aspects learnt in a group environment collaboratively. It will give students a competitive edge enabling them to secure placement opportunities in the industry in third year, while giving them an exposure in artificial intelligence and data science applications development and its lifecycle prior to their industrial placement. This will allow the student to practically experience theoretical aspects learnt in a group environment collaboratively. It will also act as an early-stage eye-opener for the student to develop their research-oriented insight in a group setting resolving inter-group conflicts as well.

- As mentioned, the **credit bearing industrial placement** in Stage 3 is a unique feature of this course. It aims to align with the IIT's unique selling point of delivering courses that are relevant to industry. The course will benefit from the IIT's strong collaborative links with industry partners. This creates an effective practice-led learning environment for students and also complements the highly skilled panel of lecturers at the IIT. The placement year provides the opportunity for the students to practically apply the concepts they have learnt in the first two years of the course. Additionally, the placement atmosphere exposes the students to real life working culture. A student who completes the placement year will

improve their skills in problem-solving, customer handling, time management, peer liaising and work-life balance, which are valuable attributes for graduates.

- Methodical **organisation of the syllabus**, where multiple streams (programming, systems and artificial intelligence and data science) is progressively developed by introducing increasing levels of complexity to the list of modules organised and gradually moving towards a specialisation in the artificial intelligence and data science stream. This will ensure versatile and enriched data science-related content coverage.

- **Case studies** of current industry trends as well as research in state universities will be showcased through invited talks feeding into research trends and other Stage 4 modules. Content covered in the course provides a strong foundation on theoretical and practical skills, and at the same time nurtures creativity and innovation through teaching and learning methods. This facilitates students to compete at local and international competitions, forums and conferences developing confidence and ability for future careers.

- The profile of the **lecturers** involved in delivering this programme is unique in that it includes a range of academics as well as experts drawn from industry. All of them are PhD, MPhil or Masters qualification holders with relevant industry and research experiences, blended with required teaching experience.

- The course uses a **multidisciplinary approach to delivery**, without being limited to traditional lectures on campus. Approaches like workshops, guest lectures, industry visits, webinars, and hackathons will also be used aided with new cutting-edge teaching methods (i.e. e-learning techniques, online teaching and learning experience, hands-on practical flipped classrooms) to improve overall efficacy. Thus, students become familiar with new communication and online learning methodologies, which is good for application in industry, as well as an enhancement to their learning experience, since the industry also promotes self-learning via new online learning techniques.

WHAT THE COURSE INVOLVES

The course will normally involve a four-year period which includes one-year industrial placement. Table 1 below shows how the course addresses a variety of subject streams to provide a wide range of knowledge and skills.

Table 1: Subject Streams of the Syllabus

Stream	Year	Semester	Subject	Core/ Optional	Credits
Systems	1	1	Computer Systems Fundamentals	Core	15
			Database Systems	Core	15
		2	Web Technology	Core	15
	3	2	Internet of Things and Wearables	Optional	15
			Edge Artificial Intelligence	Optional	15
Programming	1	1 & 2	Programming Fundamentals	Core	30
		2	Data Structures and Algorithms for Artificial Intelligence	Core	15
	2	1	Object Oriented Development	Core	15

Mathematics	1	1 & 2	Computational Mathematics	Core	30
	2	1	Advanced Mathematics for Data Science	Core	15
Data Science and AI	2	1	Machine Learning	Core	15
		2	Artificial Intelligence	Core	15
			Simulation and Modelling Techniques	Core	15
			Data Engineering	Core	15
		1 & 2	Data Science Group Project	Core	30
	3	1	Deep Learning	Core	15
	4	1 & 2	Individual Research Project	Core	30
		1	Research Trends	Core	30
			Computational Intelligence	Core	30
		2	Machine Vision	Optional	30
			Language Processing and Information Retrieval	Optional	30
Training	3	1 & 2	Industrial Placement	Core	90
Language	1	1	English Communication Skills	Core	[15]

In each year there will be two semesters. There will be two cohorts (in September and January) enrolling each year to the first year of the course. To accommodate both cohorts, delivery will be in September, January and May, i.e. the September intake will complete their second semester in April and the January intake will complete their second semester in August of the same year. However, the two cohorts commence their second year together in September, progress together through the other years and complete the course at the same time. This means the student joining in both September and January intakes of the same academic year could graduate together as long as they successfully complete all required credits. The curriculum of the course is structured so that prerequisites and core/optional modules are covered in a logical manner and gradually developing the knowledge and skill of the student.

Students will attend eight semesters spread over four years. Each module has its own assessment pattern. Students will attend a minimum three hour (maximum four hour) session each week per module. A week will normally have four modules being delivered on campus and online. Lectures will be scheduled on weekdays from 8:00 am to 5:30 pm (Sri Lankan time) as and when required classes will be held on weekends. During the 3rd year while on industrial placement; lectures, tutorials and workshops will be delivered online and on campus.

The course is made up of modules worth 15 credits, 30 credits and 90 credits (industrial placement). In the first and second year students would have a combination of 15 and 30 credit modules. However, in the third year, the industrial placement counts for 90 credits and in addition, students take two 15 credit modules. In the final year all four modules undertaken are 30 credits each. Every year students will be required to take a total of 120 credits for the course. A 15 credit module requires 150 hours of work – usually 50 hours will be scheduled activities at the IIT for the modules delivered on campus and during the online sessions for the modules taught online; lectures, tutorials, online activities and personal meetings, with the remaining 100 hours being private independent study. A 30 credit module requires 300 hours of work – usually 100 hours will be scheduled activities at the IIT; lectures, tutorials, online activities and personal meetings, with the remaining 200 hours being private independent study.

PROFESSIONAL EXPERIENCE / PLACEMENT

Students enrolled on the course are required to undertake an industrial placement during the third year of the course. The IIT works closely with industry bodies such as Federation of Information Technology Industry Sri Lanka (FITIS) and Sri Lanka Association of Software and Services Companies (SLASSCOM), two associations covering all major IT companies in Sri Lanka, and many of its alumni are linked to leading software companies in the country (Virtusa, WSO2, MilleniumIT, 99X Technologies, IFS). These strong links with industry as well as the increased need for artificial intelligence and data science application developers locally and globally provides excellent opportunities for industry placements and Honours projects that are driven by applied problems.

Additionally, guest lectures, workshops led by industry specialists, will be another opportunity for the undergraduate students to update themselves as well as to establish new networking opportunities. Since students who have completed the placement should have developed strong links with the industry specialists in specific areas, they can use this network to invite experts to the University to conduct workshops and knowledge sharing sessions on specialised technologies/work procedures.

The IIT has clubs to represent professional bodies such as IEEE, IET and Rotaracton campus. IEEE has three clubs namely IEEExtreme, Computer Science and Women in Engineering. The on campus clubs facilitate students to work with industry experts, undergraduates from other universities, participate in technical forums, conferences and workshops to enhance their knowledge and skill and develop a network with professionals locally and globally.

OPPORTUNITIES FOR FURTHER STUDY

An Honours degree achieved with at least an upper second classification (2.1) will normally provide access to postgraduate and doctoral programmes in UK higher education institutions. In addition, in Sri Lanka and other counties (e.g. USA, Australia), some of the top ranking universities require a four-year degree with a credited placement as paramount to enter postgraduate degrees. Since the BSc (Hons) Artificial Intelligence and Data Science meets these requirements, students have the opportunity to pursue such postgraduate degrees.

Furthermore, the course has a strong grounding in research techniques and enables students to advance into research and development at postgraduate and doctoral levels. RGU and the IIT are exploring this avenue of jointly supervised PhD opportunities with matched funding schemes. Increasingly, doctoral programmes by online learning are growing in number, format, subject area and modes of delivery.

EXTERNAL AND INTERNAL INDICATORS OF QUALITY AND STANDARDS

QAA Subject Benchmark Statements are part of the QAA Quality Code. They set out the nature of study and the expectations of graduates in specific subject areas. All undergraduate and postgraduate courses delivered at the IIT in collaboration with its partner institutions are in alignment with a Subject Benchmark Statement in their subject, and for this course it is Computing.

Scottish Credit and Qualification Framework (SCQF) statements are also used during the design of modules, courses and programmes. The relevant SCQF level is included within each Module Descriptor.

RGU appoints External Examiners to assure standards of assessment. Examiners are appointed from both academic and practice backgrounds to cover key subject areas. The External Examiner will verify that standards are appropriate for the award elements, assist in the comparison of academic standards across higher education awards and ensure that assessment processes are fair and equitable in line with RGU's Regulations.

Validation and annual monitoring are carried out by partner institutions to ensure that the IIT meets the standard.

British Computer Society (BCS) accreditation of courses provides an indicator of quality to students and employers and provides independent recognition for institutions that offer them. BCS has accredited all undergraduate and postgraduate courses delivered by the IIT including two MSc programmes delivered in collaboration with RGU.

The IIT obtained certification in 2019 to ISO 9001: 2015 Quality Management Systems (QMS), which is internationally recognised as the world's leading quality management standard and has been implemented by over one million organisations in over 170 countries globally. Annual audits are carried out to ensure compliance.

The IIT works closely with industry bodies such as Federation of Information Technology Industry Sri Lanka (FITIS) and Sri Lanka Association of Software and Services Companies (SLASSCOM), two associations covering all major IT companies in Sri Lanka, to ensure that the curriculum is up-to-date and meets the employee expectations. In 2018 the IIT took part in the SLASSCOM hot skill audit programme and was ranked within the top 10 universities in Sri Lanka.

ACADEMIC REGULATIONS

This course is governed by the provisions of the university's Academic Regulations, which are available at **www.rgu.ac.uk/academicregulations**. In particular:

Regulation A1: Courses

Regulation A2: Admission and Enrolment

Regulation A3: Section 1: Student Appeals (Awards and Progression) Procedure

Regulation A3: Section 2: Student Misconduct Procedure

Regulation A4: Assessment and Recommendations of Assessment Boards

Applicants must satisfy the university's general admission requirements for undergraduate and postgraduate courses as contained in *Academic Regulation A2: Admission and Enrolment*, including proficiency to a minimum standard in the English language. Specific entry requirements for this course are detailed below.

Course Specific Academic Regulations

IIT will adopt RGU's Academic Regulations with the following agreed adaptations and amendments:

Regulation A2: Admission

Admission Requirements for Undergraduate Courses

Firstly, all students are required to obtain one of the following:

Sri Lankan Requirements	UK Requirements
- Five GCE/O Level passes with a minimum grade C in English and Maths	- Six GCSE passes with a minimum grade C in English and Maths

The Sri Lankan requirement of an O Level pass in English accounts for the English language requirements for the course. To build on this, CM1607 *English Communication Skills* is a core module delivered in Semester 1 of Stage 1 to facilitate students in basic written/verbal communication skills needed for the course. Successful completion of the module is required for progression to Stage 2 but the 15 SCQF credits do not contribute to any award.

Secondly, all students are required to obtain one of the following:

Standard Admission Requirements

Sri Lankan Requirements	UK Requirements
- Three A Level passes with a minimum grade S in a science stream	- Three A Level passes with a minimum grade D in a science stream

Non-Standard Admission Requirements

Sri Lankan Requirements	UK Requirements
- Two A Level passes with a minimum grade S in a science stream and a minimum of 12 points based on the below points scheme - Successful completion of the IIT Foundation Certificate in Higher Education Programme with at least 50% in the Mathematics for Computing and Business and Introduction to Programming modules - Partial completion of an Honours degree course in computing, conducted by any other recognised university, local or foreign	- Two A Level passes with a minimum grade D in a science stream and a minimum of 12 points based on the below points scheme

Points Scheme

A Levels			
Sri Lankan		UK	
Grade	Points	Grade	Points
A	10	A	10
B	8	B	8
C	6	C	6
S	4	D	4
		E	2

Other Qualifications	
Sri Lankan	
Grade	Points
C in General Information Technology (GIT) conducted by the Department of Examination	2
IT related Diploma or Certificate course conducted by a recognised body with minimum of 6 months full time duration	4
National level achievements in sports/extracurricular activities	2

As Sri Lankan A Level assessments are untaken in August, provisional Sri Lankan A Level grades can be used as a basis for an offer of admission providing the provisional grades meet the above specified admission requirements. When the formal Sri Lankan A Level results are released in December, students will be subject to the following conditions:

a. A student who does acquire the required A Level results as specified above continues on the course to Semester 2 in January.
b. A student who does not acquire the required A Level results by a marginal amount*, but has passed all of Semester 1 modules, can continue on the course to Semester 2 in January.
c. A student who does not acquire the required A Level results by a marginal amount* and has failed all or some of Semester 1 modules, should leave the course but their Semester 1 performance is retained. The student could return to Semester 2 of the course in May after successful completion of the IIT Half Foundation Programme from January to May (one semester). The student would be required to undertake any reassessments from Semester 1 in August. On successful completion of Semester 2 and any reassessments, the student can continue on the course to Stage 2 in September with their original cohort.
d. A student who does not acquire the required A Level results or meet the conditions outlined in b. or c. is required to leave the course and their Semester 1 performance is discounted. The student could start the course again, with a new cohort, by successfully completing the IIT Full Foundation Programme from January to August (two semesters).

**A marginal amount is defined as two A Level passes with a minimum grade S (Sri Lankan)/grade D (UK) in a science stream and a minimum of 8-10 points based on the above points scheme.*

Applicants with qualifications in other streams, such as the technology stream, will be considered on a case-by-case basis by the Course Team.

Regulation A3-1 Academic Appeals

The course is delivered in accordance with RGU's ***Fit to Sit Policy***.

The IIT's 16B Appeals Handling Procedure will be used for appeals against decisions relating to academic performance and/or recommended academic awards as follows:

Level 1:
The appeal should be submitted, using RGU's Student Academic Appeal Stage 1 Form, to the IIT Registrar who, in consultation with the Course Leader, considers whether there are grounds for appeal. If it is deemed there are grounds for appeal, the appeal will be considered by the Assessment Board. The appeal should be made in writing within 5 days of receiving results after the Assessment Board. The outcome will be communicated to the student within three weeks. Where relevant/appropriate the IIT will seek guidance from RGU.

Level 2:
If the appeal is not resolved at Level 1, the student can continue with their appeal by going through the RGU Stage 2 Academic Appeal process outlined with Regulation A3-1.

Regulation A3-2: Student Misconduct Procedure

The Student Misconduct Procedure is replaced by the IIT's 15 Misconduct or Malpractice Procedure – Students.

Regulation A4: Assessment and Recommendations of Assessment Boards

Approval of Instruments of Assessment

Assessments will be internally moderated by the IIT, overseen by RGU as appropriate and sent to the External Examiner for approval.

Assessment Board

The Assessment Board shall normally constitute a Convener (IIT), External Examiner (approved by RGU), RGU Link Coordinator, IIT Head of Department, IIT Course Leader, IIT Module Coordinators and representatives from IIT Registry and RGU Academic Quality.

The Assessment Board will be convened twice each year to decide on student progression and award.

Condonement

CM3606 *Industrial Placement* and CM4605 *Individual Research Project* are central to the objectives of the course and, therefore, cannot be condoned.

Complaints Procedure

Complaints are managed through the IIT QMS 16A Complaint Handling Procedure.

SOURCES OF FURTHER INFORMATION

Further information is available at: **www.iit.ac.lk/undergraduate**.

EQUALITY AND DIVERSITY

IIT are committed to the active promotion of equality across its functions, including its course provision. Please refer to IIT's Equality and Diversity Policy Level 2 Section 20 outlined in IIT's Quality System Process (QSP).

NOTE

This document constitutes one of two course documents that should be read together:
Course Specification: Core Award Data
Course Specification: Student Learning Experience

CONTACT DETAILS

Informatics Institute of Technology (IIT)
57, Ramakrishna Road, Colombo
06, Sri Lanka. Telephone:
Telephone: +94 (0) 112 360 212 /
+94 (0) 112 580 714

Fax: +94 (0) 112 362 305
Web: **http://www.iit.ac.lk**

In compiling this information the university has taken every care to be as accurate as possible, though it must be read as subject to change at any time and without notice. The university reserves the right to make variations to the contents or methods of delivery of courses, to discontinue, merge or combine courses, and to introduce new courses.

DETAILED COURSE STRUCTURE

Full-Time			
Stage 1	**Semester 1**	***CREDITS***	***LEVEL***
CM1601	Programming Fundamentals	-	7
CM1606	Computational Mathematics	-	7
CM1603	Database Systems	15	7
CM1604	Computer Systems Fundamentals	15	7
CM1607	English Communication Skills	15	7
Total for Semester:		**45**	

Full-Time			
Stage 1	**Semester 2**	***CREDITS***	***LEVEL***
CM1602	Data Structures and Algorithms for Artificial Intelligence	15	7
CM1605	Web Technology	15	7
CM1601	Programming Fundamentals	30	7
CM1606	Computational Mathematics	30	7
Total for Semester:		**90**	
Total for Stage:		**135**	

Notes

CM1607 *English Communication Skills* is a core module, which is required for progression to Stage 2 but the 15 SCQF credits do not contribute to any award.

Full-Time			
Stage 2	**Semester 1**	***CREDITS***	***LEVEL***
CM2601	Object Oriented Development	15	8
CM2604	Machine Learning	15	8
CM2607	Advanced Mathematics for Data Science	15	8
CM2603	Data Science Group Project	-	8
Total for Semester:		**45**	

Full-Time

Stage 2	**Semester 2**	***CREDITS***	***LEVEL***
CM2602	Artificial Intelligence	15	8
CM2605	Simulation and Modelling Techniques	15	8
CM2606	Data Engineering	15	8
CM2603	Data Science Group Project	30	8
Total for Semester:		**75**	
Total for Stage:		**120**	

Full-Time			
Stage 3	**Semester 1**	***CREDITS***	***LEVEL***
CM3606	Industrial Placement	-	9
CM3604	Deep Learning	15	9
Total for Semester:		**15**	

Full-Time			
Stage 3	**Semester 2**	***CREDITS***	***LEVEL***
CM3606	Industrial Placement	-	9
Choose 1 option module from the following group:			
CM3602	Internet of Things and Wearables	15	9
CM3603	Edge Artificial Intelligence	15	9
Total for Semester:		**30**	

Full-Time			
Stage 3	**Semester 3**	***CREDITS***	***LEVEL***
CM3606	Industrial Placement	90	9
Total for Semester:		**90**	
Total for Stage:		**120**	

Full-Time			
Stage 4	**Semester 1**	***CREDITS***	***LEVEL***
CM4601	Computational Intelligence	-	10

CM4604	Research Trends	-	10
CM4605	Individual Research Project	-	10
Choose 1 option module from the following group:			
CM4606	Machine Vision	-	10
CM4603	Language Processing and Information Retrieval	-	10
Total for Semester:		**-**	

Full-Time			
Stage 4	**Semester 2**	***CREDITS***	***LEVEL***
CM4601	Computational Intelligence	30	10
CM4604	Research Trends	30	10
CM4605	Individual Research Project	30	10
Choose 1 option module from the following group:			
CM4606	Machine Vision	30	10
CM4603	Language Processing and Information Retrieval	30	10
Total for Semester:		**120**	
Total for Stage:		**120**	

COURSE STRUCTURE DIAGRAM

The below table shows the different semester timings for each intake in Stage 1. Both intake cohorts undertake the same course structure from Stage 2 onwards.

	September Intake	**January Intake**
September	Stage 1 – Semester 1	
January	Stage 1 – Semester 2	Stage 1 – Semester 1
May		Stage 1 – Semester 2
September	Stage 2 – Semester 1	
January	Stage 2 – Semester 2	
May		
September	Stage 3 – Semester 1	
January	Stage 3 – Semester 2	
May	Stage 3 – Semester 3 (Placement)	
September	Stage 4 – Semester 1	
January	Stage 4 – Semester 2	
May		

COURSE SPECIFICATION:
Student Learning Experience

BSc (Hons) Artificial Intelligence and Data Science

STUDENT LEARNING EXPERIENCE

The **Purpose** of the University is:

- To be an innovative, inclusive and professionally focused University that has a positive impact on those we serve.

The **Mission** of the University is:

- To transform people and communities by providing excellent teaching, research and enterprise opportunities to contribute to economic, social and cultural and environmental sustainability.

The **Culture** of the University is:

- To recognise and celebrate the values of curiosity, authenticity, approachability, collaboration, enterprise, ambition, respectfulness, and equality.

Driven by the spirit of curiosity to continually improve, our values and principles will guide us. Our partnerships with other organisations and the communities we serve are also a mechanism to develop and grow our diversity. We have a strong commitment to widening and extending access to our courses, regardless of an individual's background.

At the core of the University's significant achievements is the commitment and dedication of our people. The sense of partnership between our staff and students is strong and supporting our students to succeed in their studies and beyond is deeply ingrained in our culture. These features are reflected in the University's student satisfaction rates, which in recent years have consistently placed RGU in the top 10 of universities in the UK.

RGU has a long history of inspiring highly employable graduates. This is achieved through close, collaborative contact with employers in the design and delivery of our curriculum; the range and breadth of accreditations with professional and statutory bodies; the significant role work placements and work-based learning play within our courses; and the embedding of enterprise across all our activity. In a changing society, we will ensure the continued evolution of our curriculum so that our graduates can continue to succeed in their ambitions and make a positive impact within society well into the future.

To achieve our ambitions, our curriculum must be global in outlook, and we must maximise the international reach of our course portfolio. The University's research activities must have international impact and our enterprise activities must reflect the global reach of the economic sectors we work with and the ambitions of the region.

TEACHING AND LEARNING STRATEGY

Teaching strategies for the course is a crucial factor associated with the overall quality of the course and graduates. The following section elaborates important attributes associated with the delivery strategy.

Teaching Strategies and Self-Learning

BSc (Hons) Artificial Intelligence and Data Science is a novel course, embracing both artificial intelligence and data science pathways in catering to the prevailing skills shortage. A variety of trending and effective teaching and learning strategies are utilised to deliver the contents of the course to the enrolled students. These strategies are inclusive of formal face-to-face lecture series, several online lectures, guided laboratory sessions, tutorial sessions on campus and online, workshops, guest sessions by industry experts, field visits as well as student-centred exhibitions, competitions and hackathons.

Both lecturer-centred and student-centred approaches are used for enforcing bi-lateral interaction between both the groups. At the inception for the first-year students, more attention and follow up is required, as they are in a transition period of getting adjusted to the university education system. Therefore, at first year, more lecture-centred emphasis is provided and gradually, when the student moves from second to third and fourth year, student-centred emphasis can be increased. Through these mechanisms, students will learn about self-responsibility and how to efficiently manage the autonomy given for them. These skill-sets are exclusively important when the student enters the society as a matured professional.

In addition to the guided learning strategies, students are encouraged to develop their individual learning as well as industry always gives prominence to quickly adaptable, research-oriented, self-learning individuals who can work with minimal or no supervision.

Skills Development

The employability skills students require are not limited to discipline-specific hard skills as soft skills also play a vital role in uplifting an individual to the state of a professional. Each subject stream contributes to the enhancement of the students' skillsets. Those skills could be numerical skills, which are effectively addressed from the mathematics stream associated modules. Soft skills such as communication, conflict resolution, group interactions, time management, autonomy accountability and cognitive aspects are addressed with multiple assessments comprising group work activities, presentations, thesis/report writing. Additionally, strong emphasis is given to improve the technical skillsets required to perform as a skilful Software Engineer or a specialised Data Scientist.

Learning Environment

Upon enrolling to the course, a student will obtain access to the RGU's CampusMoodle, e-learning environment. This is used to place course content, assignments, and liaise between students and Module Lecturers. Lecturers can upload course material, create discussion forums, quizzes and

numerous forms of learning and testing experiences are available to the students via RGU's e-learning environment.

In addition, after enrolling in the course, each student will be given an RGU student account. Through the credentials of this account, students will be able to access almost all established research repositories (i.e. IEEE Xplore, Springer, ACM) which will be an ideal platform to enforce a researched-oriented culture among students.

At the IIT, students are equipped with state-of-art lecture halls, lab facilities with modern software and an up-to-date library which contains most of the books/articles related to the programme delivered. Both labs and library are accompanied by supportive staff to facilitate the student requests. Further, the course is taught by experienced staff with necessary technical, teaching and research expertise. Another strength of the IIT is the alumni as the IIT has more than 3,000 alumni, who are in distinguished roles and who could contribute to the course by sharing their expertise, strong industry links, supervising research projects and various other means.

Student-Lecturer Interaction

Constant and appropriate student–lecturer interaction is vital in transforming a student to accomplish the graduate attributes. In addition, to formal email communication alternative communication methods depending on their needs, such as face-to-face, email, chat, virtual learning environment forums, Skype and phone are also facilitated. The list below describes how various hierarchies related with the course communicate with students.

- A Module Leader: module related queries (via Email, CampusMoodle, face-to-face at Lectures/Tutorials/Labs)
- The Course Leader: course queries and/or personal issues (via Email, CampusMoodle, Phone, face-to-face)
- Student Relations Manager: non-academic matters and personal issues (via face-to-face)
- The Registrar: module registration related issues. (via Email)
- IT Services: for technical support in the laboratories and/or for setting up software on their own devices e.g. Wi-Fi (via Email)
- Library staff (via Email)
- Designated email contact at RGU: course validity related questions (via Email)

ASSESSMENT

A variety of assessment methods are used in this course, with particular emphasis placed on coursework assignments, including design exercises (ranging from design studies to fully implemented solutions), comparative studies, investigative reports, demonstrations, presentations, interviews, computer aided assessments and unseen written examinations. Students are informed in advance what assessment methods will be used for each module. The format of assessment varies significantly from one year to the next, examples of assessment will be created in order to ensure students understand what the assessment entails. All assessments include a marking/grading scheme, which describes the criteria used for the award of marks/grades.

Assessment Plan

Coursework may be used as a form of formative and/or summative assessment, and within the context of industrial training this may be work-related.

Coursework deliverables cover a variety of artefacts such as technical reports, presentations, demonstrations, assessed labs. These will be used to assess problem identification, problem analysis with evaluation of alternative solution strategies, solution design, evaluation of solution performance, documentation and presentation skills. With assessed labs, where students undertake a coursework in a computer laboratory under examination conditions, students will normally also have access to a range of reference materials. The use of state-of-the-art computational tool kits and programming skills will be assessed in all practical coursework assignments in addition to analytical and critiquing skills (i.e. literature survey, evaluation methodologies) and communication skills (results presentation and documentation). Technical reports will be used to document coursework assignments. Demonstration of IT competence is mandatory in production of documentation to support all coursework submissions.

Within the industrial placement module, work-related coursework will be a portfolio of evidence showing engagement in the industrial placement, such as attendance in pre-placement training sessions, creation of a resume, personal and professional development plans, placement agreement, final placement report along with records issued by the company, such as the letter of service for the period of the placement, poster presentation and viva. Coursework could also be work-centric, such as a report in response to a case study scenario where the case study is built to reflect current issues within a specific sector.

With the individual research project, a plagiarism analysis report, such as from Turnitin will accompany the final dissertation. Supplementary documentation on project management will record project progress, quality guidelines and project deliverables. It will also contain information on the use of WWW resources to present interim individual research project progress updates and guidelines on the live presentation and demonstration of individual research project outcomes.

The following sections detail the assessment of the SCQF Level Descriptors.

Knowledge and Understanding (C1)

For taught modules the focus will be to assess the student's ability to integrate key features, boundaries and conventions through a critical understanding of the principal theories, concepts and principles. Students will be expected to have a detailed knowledge and understanding when addressing assessment components in each of the core technological modules. The methods of assessment used are mentioned above, such as coursework.

Practice: Applied Knowledge and Understanding (C2)

Practical skills are assessed throughout coursework assignments and examinations which involve the use of a variety of computing tools and packages as well as programming environments. Evaluation skills are key to demonstrating knowledge and understanding of business analytics practice. The individual research project will assess practical skills required to complete a substantial real-world research problem.

The technical modules will assess a range of specialised tools and packages that are at the forefront of computer science with a special focus of artificial intelligence and data science related development. Students will be expected to integrate knowledge and skills from a range of such offerings and techniques of inquiry to create appropriate solutions for assessment tasks.

Some of these modules will assess a range of professional skills, techniques and best practices as informed by legal, ethical and social aspects.

The opportunity to assess group working is also integrated within several modules comprising assessment components that have group-based coursework, in addition to the group project.

The integrative individual research project module is primarily designed to assess the student's ability to plan and execute a significant project of research, investigation and software development to demonstrate originality, creativity, and aptitude for innovation. Presentations and a viva component will further assess the student's ability to respond positively to critique and participate in peer-review processes. Importantly, it will also expose students to the unknown, and often unpredictable, variety that is to be expected of professional level contexts.

Generic Cognitive Skills (C3)

Assessment generally involves the production of technical report content, which reflects on problem identification, critical appraisal and analysis of alternative solutions.

With the technical modules, assessments will focus on testing the student's ability to critically analyse and evaluate issues in real-world scenarios.

The assessment of generic cognitive skills is particularly evident in the individual research project module. In particular, students will be expected to critically review, consolidate and extend knowledge, skills, practices and thinking in relation to their chosen research project. These projects provide the student with the opportunity to excel in their original and creative problem-solving skills. Although not a requirement, it has the potential to generate work that can lead to publishable research material.

Communication, ICT and Numeracy Skills (C4)

Communication skills are assessed through technical reports documenting development of assignments; structured project documents to manage project conduct, establish quality guidelines, archive project deliverables; use of web resources to present individual research project progress; live presentation of research project outcomes. Communication tasks are implicitly assessed in tasks which involve both oral/written communication as well as documentation.

ICT skills are assessed through the use of IT tools in all coursework assignments (i.e. use of tools to plan, aid design, collate results and document coursework). Demonstration of IT competence is mandatory in production of documentation to support all coursework submissions including development of support material for the project oral presentation. Numeracy skills are essential for the successful completion of most course modules and are implicitly assessed in coursework and

unseen written examinations. Numeracy skills are particularly key to data analysis tasks and the evaluation of project results.

Autonomy, Accountability and Working with Others (C5)

Explicit assessment of these skills is evident in the project conduct of the individual research project, which reflects the student's interaction with the supervisor and includes demonstration of own-initiative and ability to work independently.

Other coursework that involves presentations will equip students to handle peer pressure and respond appropriately to questions. Team-working skills will be assessed in the modules which include group work for the compilation of a critical report on legal, ethical, professional and social issues.

Table 2: Mapping SCQF Characteristics to Modules

SCQF Level	Module	Module Code	C1	C2	C3	C4	C5
7	Database Systems Design and Implementation	CM1603	x	x	x		
7	Computer Systems Fundamentals	CM1604	x	x			
7	Computational Mathematics	CM1606	x	x	x	x	
7	Programming Fundamentals	CM1601	x	x			
7	English Communication Skills	CM1607	x				
7	Web Technology	CM1605	x	x	x	x	x
7	Data Structures & Algorithms	CM1602		x	x		
8	Object-Oriented Development	CM2601		x	x		
8	Artificial Intelligence	CM2602	x	x	x	x	
8	Advanced Mathematics	CM2607	x	x	x	x	
8	Simulation and Modelling Techniques	CM2605	x	x	x		
8	Machine Learning	CM2604		x	x		
8	Data Engineering	CM2606		x	x		
8	Data Science Group Project	CM2603	x	x	x	x	x
9	Industrial Training	CM3601	x	x	x	x	x
9	Deep Learning	CM3604		x	x		
9	Edge AI	CM3603	x	x	x		
9	IoT and Wearables	CM3602	x	x	x		
10	Individual Research Project	CM4605	x	x	x	x	x
10	Research Trends	CM4604		x	x	x	x
10	Computational Intelligence	CM4601		x	x		
10	Machine Vision	CM4602	x	x	x		
10	Language Processing and Information Retrieval	CM4603	x	x	x		

SUPPORT FOR TEACHING, LEARNING AND ASSESSMENT

The University provides a number of means of supporting teaching and learning:

- student induction organised on a course or School basis;
- an ongoing scheme of personal/pastoral support for students, including online support, such as Silvercloud, provided by the Inclusion Centre;
- an extensive programme of student study skills delivered through the Study Skills and Access Unit and the Library;
- an extensive library of learning resources;
- close collaboration with industry and professional, statutory and regulatory bodies;
- the University's active participation in the Quality Assurance Agency's Quality Enhancement Themes, **www.enhancementthemes.ac.uk**;
- support for staff from the Department for the Enhancement of Learning, Teaching and Assessment (DELTA), including credit rated teaching, learning and assessment provision;
- RGU Learning and Teaching Framework which forms a template to produce adaptable and skilled graduates equipped for the opportunities and challenges of their future professional careers.
- extensive opportunities for student placements with companies or organisations, academic overseas exchange programmes, and support for entrepreneurial activity;
- support from the Employability Team, including online advice and information via the RGU e-Hub;
- CampusMoodle, **http://campusmoodle.rgu.ac.uk/**, the University's dedicated virtual learning environment;
- a commitment to knowledge exchange and technology transfer through focused research activity, which contributes to the critical underpinning for all taught courses;
- the expanding provision of state-of-the-art, purpose-built facilities and buildings.

Academic support is provided by the academic staff delivering the course. The course is led by a Course Leader, who is the person to approach to ask about any aspect of the course. Each module is led by the Module Leader, a member of academic staff who, with colleagues, guides a student's study in a variety of ways from formal lectures to private conversation.

Each student will be assigned a Personal Tutor to support them. In order to acquaint themselves with their Personal Tutor, students will meet them on a regular basis.

MONITORING OF QUALITY AND STANDARDS

The University employs several mechanisms for evaluating and improving the quality and standards of teaching, learning and assessment, including:

- *Annual Course/Programme Appraisals* are prepared for each course and reviewed and approved by Course/Programme Management Teams and School Academic Boards which consider, amongst other things, feedback generated from student questionnaires;
- *Institution-Led Subject Review*, involving external panel members, on a six-yearly basis to formally review its major subject provision, followed by a three year interim review to monitor progress against actions/issues raised through the review process;
- *External Examiner Annual Reports*;

- Ongoing liaison with industrial/professional liaison groups.

Formal Committees with responsibility for monitoring and evaluating quality and standards:

- Staff/Student Liaison Committees, or equivalent;
- Course/Programme Management Teams;
- School Academic Boards;
- Assessment Boards;
- Quality Assurance and Enhancement Committee and associated Sub-Committees.

This validated course is delivered and assessed by the IIT and approved and overseen by RGU. All academic collaborations are subject to approval, monitoring and review by RGU. The ultimate responsibility for the course monitoring and maintaining the standard of the course lives with RGU.

A Link Coordinator is appointed to the course by RGU to take responsibility for the general operation, coordinator and monitoring of the collaboration. The Link Coordinator provides the academic link between RGU and the IIT, ensuring adequate ongoing communication between the institutions and acts as an adviser to the Course Team. The Link Coordinator produces a Link Coordinator Annual Report as part of the Annual Appraisal process.

The collaboration is formalised in a Contract of Collaboration. Monitoring and compliance with contractual obligations is led by Business and Economic Development at RGU.

The IIT also have a Quality Manual and Quality Policies in place.

FEEDBACK FROM STUDENTS

The University and RGU:Union work in partnership to create an environment which stimulates:

- the participation of students, by empowering them to proactively provide views and opinions;
- a supportive learning community where students and staff engage in meaningful dialogue; and
- the engagement of students in the design of solutions and enhancements.

This approach is underpinned by the Student Partnership Agreement which promotes the ethos of partnership at all levels of the University. Further information can be found at the Student Representation and Partnership CampusMoodle Area: **www.rgu.ac.uk/studentpartnership**.

There are a variety of opportunities for students to provide feedback to the University, and to become actively involved in shaping their learning experience. These opportunities are integral to the University's approach to the quality assurance and enhancement of teaching and learning, and the holistic student experience. Mechanisms through which students are engaged and supported are:

- participation in Student Experience Questionnaires (SEQ) and the National Student Survey (NSS);
- staff/student liaison arrangements at course/programme level;
- support for Student Representatives;
- student representation on Institution-Led Subject Review Panels and Validations;
- student representation on key University committees.

Feedback from the IIT will be given to students in response to assessment, in response to questions in lectures, seminars and tutorials, and in guidance received during supervision.

Feedback comes in many forms such as coursework feedback, class feedback, verbal feedback on tutorial work, tutor feedback, project supervision meetings, feedback during Q&A sessions, peer feedback and industry feedback.

NOTE

This document constitutes one of two course documents that should be read together:
Course Specification: Core Award Data
Course Specification: Student Learning Experience

CONTACT DETAILS

Informatics Institute of Technology (IIT)
57, Ramakrishna Road, Colombo
06, Sri Lanka. Telephone:
Telephone: +94 (0) 112 360 212 / +94 (0) 112 580 714

Fax: +94 (0) 112 362 305
Web: **http://www.iit.ac.lk**

In compiling this information the university has taken every care to be as accurate as possible, though it must be read as subject to change at any time and without notice. The university reserves the right to make variations to the contents or methods of delivery of courses, to discontinue, merge or combine courses, and to introduce new courses.