



APPROVED

Awards	
Honours Bachelor Degree	
Mode of Delivery:	Full Time
No. of Semesters :	8
NFQ Level:	8
Programme Credits:	240
Language of Instruction:	English
Department:	Computing and Networking

Semester Schedules

Stage 1 / 60 ECTS / Semester 1

Mandatory	
Module Code	Module Title
ZAPP C1201	Applications and Interpersonal Communications
ZCOM C1201	Computer Hardware 1
ZMAT C1201	Mathematics 1
ZNTW C1201	Networking 1
ZPRG C1201	Programming 1

Stage 1 / 60 ECTS / Semester 2

Mandatory	
Module Code	Module Title
ZCOM C1202	Computer Hardware 2
ZMAT C1202	Mathematics 2
ZNTW C1202	Networking 2
ZPRG C1202	Programming 2
ZSYS C1201	Operating Systems

Stage 2 / 60 ECTS / Semester 1

Elective Regulation

Learners may apply to EXIT on completion of this stage of the programme with a Higher Certificate in Science in Computing in Programming (Level 6 Embedded Exit Award) provided they have achieved the required learning outcomes for the level 6 award and have accumulated 120 credits. IT Carlow academic regulation apply

Mandatory	
Module Code	Module Title
PROG	Web Programming and Databases 1
DIGT	Digital Logic
DATA	Data Structures and Algorithms
DEVL	Object Oriented Software Development 1
ANAL	Systems Analysis and Testing

Stage 2 / 60 ECTS / Semester 2

Mandatory	
Module Code	Module Title
COAP	Assembly and C
STRU	Discrete Structures
DEVL	Object Oriented Software Development 2
PROG	Web Programming and Databases 2
PROJ	Project (Software Development)

Stage 3 / 60 ECTS / Semester 1

Elective Regulation

Learners may apply to EXIT on completion of this stage of the programme with a Bachelor of Science in Software Development (Level 7 Embedded Exit Award) provided they have achieved the required learning outcomes for the level 7 award and have accumulated 180 credits. IT Carlow academic regulation apply

Mandatory	
Module Code	Module Title
ENGR	Software Engineering
PROG	Advanced Programming
SYST	Operating Systems
DATA	Advanced Data Structures and Algorithms
DEVL	Cloud Development

Stage 3 / 60 ECTS / Semester 2

Group Elective 1	
Module Code	Module Title
RECH	Approved Semester Abroad
WKPL	Work Placement (Software Development)
PROJ	Project (Software Development)

Stage 4 / 60 ECTS / Semester 1

Mandatory	
Module Code	Module Title
COMP	Concurrent Development
DATA	Data Science and Machine Learning 1
DEVL	Agile Software Development
COAP	Agile Software Verification
PROJ	Project (Software Development) (Part 1 of 2)

Stage 4 / 60 ECTS / Semester 2

Elective Regulation
Take any 2 elective modules

Mandatory	
Module Code	Module Title
LEAD	Data Science and Machine Learning 2
SECU	Secure Application Development
PROJ	Project (Software Development) (Part 2 of 2)

Group Elective 1	
Module Code	Module Title
COAP	Cloud Data Centers
SCIE	Case Studies in Data Science
VISU	Data Visualisation
DATA	Data Engineering
FALT	Bias in Computational Systems
LANG	Programming Language Design
TECH	Artificial Intelligence in the Wild
DSGN	UI/UX Design and Development
SYST	Blockchain Technology
COMP	Linux Infrastructure Engineering
DEVL	Distributed Development
ENTR	Entrepreneurship