

# APPROVED

Programme Code	HDCOMP	Programme Duration	1
Programme Level	8	EQF Level	6
Programme Credits	60	EHEA Level	First Cycle
Semester Duration	12 Week(s)		
Language of Instruction	English		
Field of Study	0613 - Software and applications development and analysis		
Supplementary Field of Study	Information and Communication Technologies (ICTs) not further defined or elsewhe		
CAO Code; QQI Programme Code etc	Code		

## Programme Outcomes

On successful completion of this programme the learner will be able to :

Description
Demonstrate fundamental knowledge and understanding of theory, concepts and methods in the specialist areas of computing field, relating to Software Development, Cloud Computing, Internet of Things, Cyber Security, Artificial Intelligence and Machine Learning, Blockchain, and Web Technologies.
Analyse, design, implement, test, deploy and document a technical software solution to solve complex problems.
Apply best practices in designing computer solutions in a range of real-world contexts.
Communicate effectively, present the results and defend the approach used in the development of a software solution.
Critically and effectively analyse problems through both independent and collaborative efforts in order to develop computing solutions as part of a software development team.
Analyse and apply new and emerging technologies and standards, which may include ethical implications, in the development of a software solution.

## Semester Schedules

### Stage 1 / Semester 1

Core Subject	
Module Code	Title
H8INDB	<a href="#">Introduction to Databases</a>
H8OOS	<a href="#">Object Oriented Software Engineering</a>

H8SDEV	<a href="#">Software Development</a>
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H8WBD	<a href="#">Web Design and Client Side Scripting</a>
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### Stage 1 / Semester 2

Group Elective 7	
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Module Code	Title
H8ACSD	<a href="#">Advanced Client Side Development</a>

Group Elective 6	
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Module Code	Title
H8BCAD	<a href="#">Blockchain Application Development</a>

H8BLF	<a href="#">Blockchain Foundations</a>
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Group Elective 7	
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Module Code	Title
H8CADEV	<a href="#">Cloud Application Development</a>

Core Subject	
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Module Code	Title
H8CAO	<a href="#">Computer Architecture Operating Systems and Networks</a>

Group Elective 7	
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Module Code	Title
H8DOS	<a href="#">DevOpsSec</a>

Group Elective 6	
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Module Code	Title
H8DSY	<a href="#">Distributed Systems</a>

Group Elective 1	
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Module Code	Title
H8ADVPROG	<a href="#">Algorithms and Advanced Programming</a>

H8DS	<a href="#">Data Structures</a>
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H8DSY	<a href="#">Distributed Systems</a>
Group Elective 2	
<b>Module Code</b>	<b>Title</b>
H8CADEV	<a href="#">Cloud Application Development</a>
H8DOS	<a href="#">DevOpsSec</a>
H8EFC	<a href="#">Edge and Fog Computing</a>
Group Elective 3	
<b>Module Code</b>	<b>Title</b>
H8FMC	<a href="#">Fundamentals of Mobile Communications</a>
H8IOTAD	<a href="#">IoT Application Development</a>
H8IOTFDEV	<a href="#">IoT Fundamentals and Development</a>
Group Elective 4	
<b>Module Code</b>	<b>Title</b>
H8DIGFOR	<a href="#">Digital Forensics</a>
H8PENTST	<a href="#">Network and Web Penetration Testing</a>
H8SPSP	<a href="#">Security Principles and Secure Programming</a>
Group Elective 5	
<b>Module Code</b>	<b>Title</b>
H8AI	<a href="#">Artificial Intelligence</a>
H8MLF	<a href="#">Machine Learning Fundamentals</a>
H8STATS	<a href="#">Statistics</a>
Optional	
<b>Module Code</b>	<b>Title</b>
H8DKCOMP	<a href="#">Domain Skills for Computing</a>

**Stage 1 / Semester 3**

Core Subject	
<b>Module Code</b>	<b>Title</b>
H8HDP	<a href="#">HDip Project</a>