OPIT Open Institute of Technology

Award in Cloud Computing - Fact Sheet

Overall Programme Description	The Award in Cloud Computing is designed to give students a healthy mix of theoretical foundations and practical skills.
	Throughout the course, they will learn to design, analyze and maintain complex systems. It gives students a good coverage of the most crucial aspects ranging from low-level fundamentals up to the design of cloud systems.
	Apart from the theoretical aspects, it also exposes students to practical interactions and some aspects of Artificial Intelligence in Cloud Systems.
	The ultimate aim of this short course is to give students a solid grounding thus allowing them to either migrate to the world of work quickly or further on their studies.
	At the end of the course, students will also have a portfolio of projects that they can present to their future employers.

Target Audience

Ages 19 – 30 ⊠		Age 31 – 65 ⊠
Age 65+ ⊠		

Target Group

The Award in Cloud Computing is addressed to (a) those wishing to take up a career in the ICT industry, (b) persons already employed in related sectors who wish to enhance their career prospects by acquiring a formal qualification, and (c) those wishing to pursue further studies following completion of this first degree.

The course prepares students either to find employment in the field or to undertake further studies. Accordingly, the study plan has been designed with strong formative characteristics, sound theoretical foundations, and uses innovative pedagogies.

The field of Computer Science is much bigger than the topics covered in the Award in Cloud Computing so this award can be considered as a good stepping stone to start a rewarding career. It is designed to give a solid foundation to students and expose them to a breadth of topics thus allowing students to take an informed decision when selecting a specialisation at a later stage.

OPIT | **Open Institute of Technology**

Entry Requirements	The entry requirements for this course are:

1. An EQF Level 4 certificate which includes Mathematics or
2. A minimum of four EQF Level 3 passes or equivalent, which includes Mathematics and English or
3. International equivalents to the above requirements.

In addition, the course will be taught in English. Therefore, a IELTS 5.5 level or equivalent certification is required to non-mothertongue participants to ensure a successful and total understanding of the training.

Students, who do not hold the requested level must sit for the English Entry Test in order to certify the students' competences.

All the enrolled students will follow an Induction Module before the beginning of the chosen training. This will explain to the student all the policies and procedures outlined in this handbook, and specific information related to the training, such as learning outcomes and expectations.

Study Guidelines will also be shared. Induction will also include a handbook and/or a tutorial lesson related to the different functionalities of the VLE and how to use it. If students have any specific requirements or needs, they should inform the Students Support Office.

During the admission process of students wishing to enrol to the Award in Cloud Computing, we will also ensure that such students have the required basic digital competence to successfully complete such a course. We will do so by administering to such students a standardised questionnaire that will cover aspects including, but not limited to: the availability of a PC with a webcam and speakers, the availability of an adequate internet connection, basic knowledge of operating systems and web browsers, fulfilment of the prerequisites of the course (if any).

OPIT – Open Institute of Technology
Shield Higher Education Ltd
Company Registration Number C-102836

VAT MT29530419
Level 5, Carolina Court, Giuseppe Cali Street, Ta'Xbiex
XBX 1425, Malta

Award in Cloud Computing - Fact Sheet - version May 2023 - Page 3 of 6

Learning Outcomes for Knowledge obtained at the end of the programme	The learner will be able to:
	a) Comprehend the inner workings of cloud systems
	b) Apply software engineering principles
	c) Exploit the underlying hardware limitations
	d) Analyze the limits imposed by the resources available and devise ways of overcoming them
	e) Understand the problems using formal mathematical tools
	f) Explore multidisciplinary approaches to find plausible solutions
	g) Interpret the use of diverse software design frameworks and methodologies
	h) Investigate the use of specialized methodologies
	i) Analyse complex problems and propose technology based solution
	j) Ability to communicate technical concepts effectively
Learning Outcomes for Skills obtained at the end of the programme	The learner will be able to:
	a) Apply algorithmic and mathematical reasoning to computation problems
	b) Map real-life processes and identify deficiencies
	c) Design software architectures
	d) Implement effective system and/or application software solutions
	e) Ability to work effectively in groups
	f) Use current tools and methodologies in computing projects
	g) Analyse and compare alternative solutions to computing problems

OPIT – Open Institute of Technology
Shield Higher Education Ltd
Company Registration Number C-102836

VAT MT29530419
Level 5, Carolina Court, Giuseppe Cali Street, Ta'Xbiex
XBX 1425, Malta

Award in Cloud Computing - Fact Sheet - version May 2023 - Page 4 of 6

OPIT Open Institute of Technology

Applying Knowledge and Understanding:	At the end of the module/unit the learner will have acquired the following skills: a) Plan and setup analytical tasks that can be used with Cloud technologies b) Apply the techniques learnt to design a cloud system capable of handling big data c) Design a system which uses the Map-Reduce Paradigm d) Setup industry standard platforms such as Google Cloud, Microsoft Azure or Amazon Web Services e) Prepare financial budgets (pertaining to cloud expenses) that allow business owners to make smart decisions f) Compose security, performance and scalability plans using the latest Cloud technologies
	Module-Specific Learner Skills At the end of the module/unit the learner will be able to 1. Explain how an information system works 2. Understand the functions of the various components in a cloud architecture 3. Design and propose a basic cloud system
	Module-Specific Digital Skills and Competences At the end of the module/unit, the learner will be able to: a) Using of the Internet for Research b) liaising with other students and lectures through the VLE and emails c) using of MS Powerpoint

Hours of Total Learning

1 ECTS is equivalent to 25 total hours of learning, inclusive of contact hours, supervised placement and practice hours, self-study hours and assessment hours.

Total Contact Hours [1]	42	Supervised Placement and Practice Hours	13
(Contact Hours are hours invested In learning new content under the Direction of a tutor/lecturer (e.g. lectures, participation in online forums, video-lectures)		(During these hours the learner is supervised, coached, or mentored. Tutorial hours may be included here)	
Self-Study Hours	83	Assessment Hours	12
(Estimated workload of research and study)		(Examinations/ presentations/ group work/ projects, etc.)	

Total Learning Hours | **150 Hours**

The Programme Structure:

Module/ Unit Title	Compulsory (C) or Elective (E)	ECTS	MQF Level	Mode of Teaching	Mode of Assessment
Cloud Computing	Compulsory	6	6	Video lessons, forums etc., at students' own pace and via the e-learning platform, supported by the sharing of power-point presentations, course notes, course exercises, case studies, tables, graphics, published articles, multimedia, web-links, e-books	(i) Online self-assessment, and (ii) a practical research project (weighting 20%:80%)
Total ECTS for Programme Completion	**6 ECTS**				

---

[1] *In the case of online learning, synchronous and asynchronous learning activities under the direction and control of an instructor are considered as contact hours.*