

## Module: Data Analytics Cloud 361

Module name:	Data Analytics Cloud 361
Code:	DAC361
NQF level:	6
Type:	Speciality – Diploma in Information Technology (Data Analytics)
Contact Time:	42 hours
Structured time:	7 hours
Self-directed time:	21 hours
Notional hours:	70 hours
Credits:	7
Prerequisites:	DBD261

### Purpose

This module aims to put into practice data analysis on the cloud. The student will be able to store and analyse data in the cloud and use it to extract, inform and manage actionable business insights. Also, students will be able to apply analytics algorithms to identify patterns in a large dataset, make predictions and produce useful information to inform decision-making. Students will be exposed to different cloud database platforms discussed during the course.

### Outcomes

Upon successful completion of this module, the student will be able to demonstrate:

- Detailed knowledge and informed understanding of the core areas of a cloud console, and an informed understanding of the database cloud connections.
- Demonstrate an informed understanding of database cloud setup and configuration within a specified database cloud platform.
- Demonstrate the advanced understanding of cloud database functionalities
- The ability to describe and utilize a range of analytic techniques to analyse large data using real-world applications and the ability to make informed decisions about cloud analytic technologies.
- Select and apply standard methods, procedures, or techniques to pull and analyse large data in a cloud database system using emerging trends and tools.

### Assessment

- Continuous evaluation of theoretical work through two assignment, a formative test and a summative test.
- Final assessment through a written examination

### Teaching and Learning

#### Learning materials

##### *Prescribed books (EBSCO)*

- 📖 **Vlasceanu, V., Neu, W.A., Oram, A., Alapati S. (2019) *An Introduction to Cloud Databases* O'Reilly Media, Inc. ISBN: 9781492044840.**
- 📖 **Chao, L., (2014) *Cloud Database Development and Management*. Auerbach Publications**

The teaching approach will use a combination of exercises, theory presentations and whole group discussions. It is a collaborative model with a practical approach, with a mandatory assignment which must be completed during the module.

### Notional learning hours

Contact	Distance	Other	Type of learning activities	% Learning
y	y	n	Lectures (face-to-face, limited interaction or technologically mediated)	40%
y	y	n	Tutorials: individual groups	20%
n	y	n	Syndicate groups	10%
n	y	n	Independent self-study of standard texts and references (study guides, books, journal articles)	10%
n	y	n	Independent self-study of specially prepared materials (case studies, multi-media, etc.	20%

### Syllabus

- Amazon Relational Database Service (Amazon RDS);
- Functionality in Amazon RDS;
- Functionality in Amazon DynamoDB;
- Amazon Redshift; Amazon Aurora;
- Perform tasks in an RDS database, such as launching, configuring, and interacting."