

AMITY GLOBAL INSTITUTE

MODULE SYLLABUS

Course	Bachelor of Science Honours in Computer Science (University of London)
Module Title	Databases and Advanced Data Techniques
Module Syllabus No. (if any)	CM3010
Syllabus / Content / Learning Outcomes	This module aims to show you how to work with data in your computer programs. You will learn how to use SQL and NoSQL databases to store tabular data and documents. You will learn about the ethics of gathering and processing data and why it is important to consider issues around data security. You will learn about open data resources, and how you can access them from your computer programs. You will learn about audio and video data, and the challenges of working with this kind of data.
No. of Teaching Hours	Contact Hours – Lectures, Seminars & online activity (22 x 3) = 66 Independent Preparation, pre-reading and analysis = 84 TOTAL = 150
Teaching Methods	Lectures, tutorials, case-studies analysis, research journals and group discussion.
Assessment Methods and Weightages	One two hour unseen written examination and coursework Coursework 50% and Written examination 50% At least 35% in each element of summative assessment and a combined weighted average of at least 40%, subject to the application of rules for compensation.
Skills for Maximising Learning Outcomes	Reading and research
Dates of Examinations, Major Assessments and Assignments	Please refer to www.london.ac.uk exam tables If your effective date of registration is: <ul style="list-style-type: none"> • 1 October, you will take your first examination(s) in March of the following year, • 1 April, you will take your first examination(s) in September of the same year.
Topics covered	<ul style="list-style-type: none"> • Open data sources: different data formats • Gathering and cleaning data • The ethics of working with data • SQL: advanced data representation • SQL: advanced queries and linking • NoSQL and document stores • NoSQL and data pipelines • Speeding up queries with indexes • Audio and video data • Data security

Note: All Information provided to Amity will be kept strictly confidential except for those required under statutory requirements and by government authorities and relevant university partners and accreditation bodies as part of the regulatory or course requirements.