

ISYS2120: Data & Information Management - Course Information

Unit: ISYS2120: Data & Information Management (6 CP)

Mode: Normal-Day

On Offer: Yes

Level: Intermediate

Faculty/School: School of Computer Science

Unit Coordinator/s: [Khushi, Matloob](#)

Session options: Semester 2

Versions for this Unit: 2020 - Semester 2

Campus: Camperdown/Darlington

Pre-Requisites: [INFO1113](#) OR [INFO1103](#) OR [INFO1105](#) OR [INFO1905](#) OR [INFO1003](#) OR [INFO1903](#) OR [DECO1012](#).

Prohibitions: [INFO2120](#) OR [INFO2820](#) OR [COMP5138](#).

Brief Handbook Description: The ubiquitous use of information technology leaves us facing a tsunami of data produced by users, IT systems and mobile devices. The proper management of data is hence essential for all applications and for effective decision making within organizations.

This unit of study will introduce the basic concepts of database designs at the conceptual, logical and physical levels. We will place particular emphasis on introducing integrity constraints and the concept of data normalization which prevents data from being corrupted or duplicated in different parts of the database. This in turn helps in the data remaining consistent during its lifetime. Once a database design is in place, the emphasis shifts towards querying the data in order to extract useful information. The unit will introduce the SQL database query languages, which is industry standard. Other topics covered will include the important concept of transaction management, application development with a backend database, and an overview of data warehousing and OLAP.

Assumed Knowledge: Programming skills