1. **Title of the module**

COMP5320 (CO532) - Database Systems

1. **Division or partner institution which will be responsible for management of the module**

Division of Computing, Engineering, Mathematical Sciences (CEMS)

1. **The level of the module (Level 4, Level 5, Level 6 or Level 7)**

Level 5

1. **The number of credits and the ECTS value which the module represents**

15 credits (7.5 ECTS)

1. **Which term(s) the module is to be taught in (or other teaching pattern)**

Autumn or Spring

1. **Prerequisite and co-requisite modules**

Pre-requisite: COMP3230: Databases and the Web

 or COMP5230 Fundamentals of Programming and Logic

1. **The course(s) of study to which the module contributes**

BSc Computer Science, including all variants, both with and without Year in Industry.

BSc Business Information Technology, BSc Computing, both with and without Year in Industry.

BSc Artificial Intelligence, BSc Data Science, BSc Software Engineering, both with and without Year in Industry.

1. **The intended subject specific learning outcomes.
On successfully completing the module students will be able to:**

8.1 Understand the characteristics, strengths and limitations of current database systems

8.2 Undertake self-directed background research in the module topics, synthesise information collected from a variety of sources, including other modules, discuss database and data management issues with their peers and with non-specialists.

8.3 Specify, design, implement and evaluate database solutions, perform data manipulation and information retrieval operations.

1. **The intended generic learning outcomes.
On successfully completing the module students will be able to:**

9.1 The module will extend IT skills to cover a key area that is not addressed in other parts of their course. In particular, students will extend their ability to make effective use of modern information system environments. The module will also contribute to development of: self-management, adjust the pace and goals of their work to meet deadlines; oral and written communication; Internet-based information retrieval.

1. **A synopsis of the curriculum**

This module provides an introduction to the theory and practice of database systems. It extends the study of information systems in Stage 1 by focusing on the design, implementation and use of database systems. Topics include database management systems architecture, data modelling and database design, query languages, recent developments and future prospects.

1. **Reading list**

C.J. Date An Introduction to Database Systems, 8th Edition, Addison Wesley, 2004.

T M Connolly & C E Begg, Database systems : a practical approach to design, implementation and management, 6th edition, Addison Wesley, 2015

R Elmasri, M Shamkant & B Navathe, Fundamentals of database systems, 7th edition, 2017

N S Ryan & D J Smith, Database Systems Engineering, Thompson, 1995.

1. **Learning and teaching methods**

Total contact hours: 28

Private study hours: 122

Total study hours: 150

1. **Assessment methods**

13.1 Main assessment methods

Assessment 1 - Class Exercises (10%)

Assessment 2 - Database Design (20%)

Assessment 3 - Database Implementation (20%)

2-hour unseen examination (50%)

13.2 Reassessment methods

Like for like.

1. **Map of module learning outcomes (sections 8 & 9) to learning and teaching methods (section12) and methods of assessment (section 13)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Module learning outcome** | *8.1* | *8.2* | *8.3* | *9.1* |
| **Learning/ teaching method** |  |  |  |  |
| ***Private Study*** | **X** | **X** | **X** | **X** |
| ***Lectures*** | **X** |  | **X** | **X** |
| ***Classes*** | **X** |  | **X** | **X** |
| **Assessment method** |  |  |  |  |
| ***Coursework*** | **X** | **X** | **X** | **X** |
| ***Exams*** | **X** | **X** | **X** | **X** |

1. **Inclusive module design**

The Division recognises and has embedded the expectations of current equality legislation, by ensuring that the module is as accessible as possible by design. Additional alternative arrangements for students with Inclusive Learning Plans (ILPs)/declared disabilities will be made on an individual basis, in consultation with the relevant policies and support services.

The inclusive practices in the guidance (see Annex B Appendix A) have been considered in order to support all students in the following areas:

a) Accessible resources and curriculum

b) Learning, teaching and assessment methods

1. **Campus(es) or centre(s) where module will be delivered**

Canterbury

1. **Internationalisation**

The topics addressed by this module relate to a field which is of international importance, given the global role of computers in today's technological innovation. The topics covered by this module are international in nature, being identical worldwide and independent of traditional spoken language.

**DIVISIONAL USE ONLY**

**Revision record – all revisions must be recorded in the grid and full details of the change retained in the appropriate committee records.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date approved | Major/minor revision | Start date of delivery of revised version | Section revised | Impacts PLOs (Q6&7 cover sheet) |
| 10/11/2020 | Minor |  | 7, 9, 16 | No |