COURSE SPECIFICATION

Course Title	MSc Cloud Computing
Intermediate awards available	PGCert Cloud Computing, PGDip Cloud Computing
Teaching Institution(s)	UEL (on campus)
Alternative Teaching Institutions	N/A
UEL Academic School	School of Architecture, Computing and Engineering
UCAS code	
Professional Body Accreditation	None
Relevant QAA Benchmark statements	Computing (Master's) (2019)
Additional Versions of This Course	MSc Cloud Computing (with Industrial Placement)
Date specification last updated	February 2022

Course Aims and Objectives:

This course is designed to give you the opportunity to:

- Plan, manage and deliver a significant Cloud Computing based projects, resulting in a high-quality research output through dissertation;
- Investigate and develop Cloud Computing projects with the confines of the ethical, social and professional context of Cloud Computing;
- Gain advanced theoretical and specialist practical knowledge of progressive and emerging topics including devOPS, virtualisation, software defined network;
- Create innovative solutions through the integration of a range of standard and specialised Cloud Computing tools/technologies
- Develop the professional skills necessary for a senior career in the IT industry

What you will learn

- **Knowledge**
    - Knowledge and understanding of essential facts, concepts, theories and principles of emerging technologies in cloud and distributed computing.
    - Knowledge and understanding of contemporary tools and technologies to produce solutions relevant to the domain of cloud computing to meet a set of agreed requirements.

- **Thinking skills**
    - Critically reason the production of cloud computing artefacts.
    - Independent thinking and analytical skills in the real-world problems related to cloud computing.

- **Subject-Based Practical skills**
    - Analyse, interpret, synthesise and evaluate design methods and alternative solutions for a given problem in the diverse fields of finance, medical, and technology domain.
    - Identification and implementation of appropriate intelligent algorithms.
    - Experience in algorithm design using state-of-the art programming languages.

- **Skills for life and work (general skills)**
    - Structure and communicate ideas effectively, both orally and in writing.
    - Work professionally as an individual and as a team player to develop creative solutions to problems.

Learning and Teaching

Teaching and Learning strategies ensure that knowledge, understanding, methods and skills in Computer Science based topics are achieved through appropriate teaching styles. Teaching and Learning is based on an understanding of adult learning and of differences in an individual's approach to learning.

The course uses:
- A series of face-to-face lectures, workshops and lab-based learning as a way of securing a knowledge base;
- Other teaching methods practical sessions, seminars and reflection of work-based practice to enforce learning and professional skills;
- Holistic, experiential and self-directed learning approaches as the basis for adult learning;
- Valuing course members as active learners with differing and valuable experiences;

- Problem-based learning approach as a way of addressing the complexity of situations in the real world;
- Supervision to develop reflexive and reflective software engineering experts in professional settings.
- Preparation of essays, reports and presentations and production of major self-directed project

Knowledge is developed through
- Guided reading
- Knowledge-based activities with feedback
- Online discussions and activities

Thinking skills are developed through
- Reflective activities with feedback
- Online discussions and activities

Practical skills are developed through
- IT activities with feedback
- Research skills-based activities with feedback

Skills for life and work (general skills) are developed through
- Planning activities with feedback
- Project work

Assessment

- **Knowledge is assessed by**
  - examinations (in-class and at end of year)
  - individual/group reports
  - group assessments
  - presentations
  - dissertation

- **Thinking skills are assessed by**
  - all assessment tasks set (especially related to critical thinking)
  - use of appropriate problem-solving skills

- **Practical skills are assessed by**
  - assessment tasks requiring use of general and specialised IT applications
  - demonstration of projects/tasks
  - use of tools in practicals and presentations

- **Skills for life and work (general skills) are assessed by**

  o evidence of group and team working
  o ability to work to time constraints

Work or Study Placements

Students on the placement version of the course will undertake an internship within a partner organisation and complete a 120 P-credit Industrial Placement Module. The module is graded at either Pass or Fail, assessed by the partner industrial organisation and the University and grades reflected on the students' academic transcripts.

The industrial placement component is for a duration of an academic year, ie, normally 30 weeks including minimum 24 weeks of delivery time. It starts after students have completed the 1st year of study, ie, all the taught modules and the dissertation component of the MSc course which together form 180 credits.

Students on the two-year MSc with placement courses must pass all taught modules of their respective course plus dissertation, ie, 180 credits, before they become eligible to progress to the next stage and undertake industrial placement.

Students on the MSc course with placement will also normally be required to fulfil the 80% attendance requirement (on all modules) to be eligible to progress to the industrial placement module.

Students unable to meet the above requirements and progress successfully will normally be moved to the one-year full-time version of the course and their student visa, if any, will be curtailed accordingly.

The structure of the extended version of the MSc courses that includes the industrial placement is summarised in the following table:

For September intake:	
Term 1 (Y1: Sep – Jan)	Taught modules
Term 2 (Y1: Jan – May)	Taught modules
Term 3 (Y1: May – Sep)	Dissertation
End of July Y1	Deadline for confirming placement
Term 1 and 2 (Y2: Sep – May)	Industrial placement
For January intake:	
Term 2 (Y1: Jan – May)	Taught modules
Term 1 (Y1: Sep – Jan)	Taught modules
Term 2 (Y1: Jan – May)	Dissertation
End of March	Deadline for confirming placement
Term 3 and 1 (Y2: May –	Industrial placement

Jan)	
For May intake: Term 1 (Y1: May - July) Term 2 (Sep – Jan) Term 3 (Jan – May)	Taught modules Taught modules Deadline for confirming placement Industrial placement (30 weeks) Dissertation

Students must check the Academic Calendar for start and end of term dates.

It is ultimately the student's responsibility to secure their placement. The University through the Centre for Student Success and the School will offer guidance and support; and recommend students to our industrial partners who are interested in participating in the course. But the onus to find and secure the placement is on the students. If they are unable to secure a placement at the end of taught modules, they will be transferred back to the full-time taught course without the placement component and your student visa, if applicable, will be curtailed accordingly by UKVI.

Students undertaking the Placement Module will also normally need to meet the following requirements:
- 80% attendance at the 12 week employability module workshops and classes.
- Registration on the UEL Employment Hub with CV and Covering Letter uploaded.
- Details of placement provided to the Placement Officer by 31st July (Sept starters) and 31st March (January and May starters).

Placement Agreement form signed by the student and partner organisation at least 3 weeks before the placement start date.

PROGRAM STRUCTURE

All courses are credit-rated to help you to understand the amount and level of study that is needed.

One credit is equal to 10 hours of directed study time (this includes everything you do e.g. lecture, seminar and private study).

Credits are assigned to one of 5 levels:

3   Equivalent in standard to GCE 'A' level and is intended to prepare students for year one of an undergraduate degree course.
4   Equivalent in standard to the first year of a full-time undergraduate degree course.
5   Equivalent in standard to the second year of a full-time undergraduate degree course.
6   Equivalent in standard to the third year of a full-time undergraduate degree course.
7   Equivalent in standard to a Masters degree.

Courses are made up of modules that are each credit weighted.

The module structure of this course:

Course structure table

Level	Module Code	Module Title	Credit Weighting	Core/Option	Available by Distance Learning? Y/N
7	CN7023	Artificial Intelligence and Machine Vision	30	Core	N
7	CN7026	Cloud Computing	30	Core	N
7	CN7022	Big Data Analytics	30	Core	N
7	CN7016	Computer Security	30	Core	N

7	CN7000	Mental Wealth; Professional Life (Dissertation)	60	Core	N
7	EG7021	Industrial Placement (Core for the MSc with Industrial Placement course only)	120P	Core for MSc with Industrial Placement	N

Please note: Optional modules might not run every year, the course team will decide on an annual basis which options will be running, based on student demand and academic factors, in order to create the best learning experience.

Typical duration

Course without Industrial Placement
The MSc course will be available in full-time and part-time modes, and its delivery may include traditional, block and blended learning. The full-time duration of this course is 12 months for the September and May intake and 17 months for the January intake.

The minimum period for completion of the MSc is 1 year full-time and 2 years part-time. For those not on a student visa, it is possible to move from full-time to part time study and vice-versa to accommodate any external factors such as financial constraints or domestic commitments. Many of our students make use of this flexibility and this may impact on the overall duration of their study period.

The time limit for completion of a course is four years after first enrolment on the course.

Course with Industrial Placement
The course with industrial placement is offered in full-time mode only. The duration of this course is two academic years (including the industrial placement element). See "Work or Study Placements" section for more detail

Further Information

More information about this course is available from:

- The UEL web site (www.uel.ac.uk)
- The course handbook
- Module study guides
- UEL Manual of General Regulations (available on the UEL website)
- UEL Quality Manual (available on the UEL website)
- School web pages available on the UEL website)

All UEL courses are subject to thorough course approval procedures before we allow them to commence. We also constantly monitor, review and enhance our courses by listening to student and employer views and the views of external examiners and advisors.

Additional Costs

No additional costs are anticipated.

Alternative Locations of Delivery

N/A