

|                              |   |
|------------------------------|---|
| <b>Programme Title</b>       | <b>BSc (Hons) Cloud Computing</b>                                     |
| <b>Awarding Body</b>         | Ravensbourne University London  |
| <b>Teaching Institution</b>  | Ravensbourne University London  |
| <b>Final Award</b>           | Level 6 – BSc (Hons) Cloud Computing                                  |
| <b>Interim awards</b>        | Level 4 – Cert HE Cloud Computing<br>Level 5 – Dip HE Cloud Computing |
| <b>UCAS Code</b>             | I160  |
| <b>QAA Subject Benchmark</b> | Computing   |
| <b>PRSB reference</b>        | N/A   |
| <b>Mode of study</b>         | Full Time / Part Time   |
| <b>Date produced/amended</b> | January 2020  |
| <b>Course Leader</b>         | Ajaz Ali  |

### Distinctiveness

Ravensbourne University London is known for its excellence in Media and Creative Arts education and for the application of technology in these areas. Working at the convergence of technology and media, and with strong links in the creative and technology industries, the University is uniquely placed to offer computing courses which are relevant now but also future proof our learners.

The BSc in Cloud Computing together with its sister course BSc in Cyber Security are the first honours degrees in the UK that:

- have been developed in partnership with Amazon Web Services (AWS), one of the leading global providers of cloud services;
- in addition, cover the Cyber Security Body of Knowledge (CyBOK 1.0) framework at this level.

Students on the course will have privileged access to resources and content on AWS-Educate covered on this course from experts from around the world. Students will also gain access to the dedicated AWS Educate Job Board portal after completion of this programme.

The course covers a range of requisite skills, knowledge and industry standard technologies related to cloud computing and its implementation in various sectors. Cloud computing is gaining momentum around the globe and a large number of organisations are switching to Cloud from a conventional computer based local infrastructure. The Cloud computing sector is predicted to double in size by 2023 according to IDC, a global provider of market intelligence in information technology (IDC, 2019).

The growth of cloud computing has been accompanied by a well-documented and increasing skills gap particularly in areas such as platform expertise, cloud architecture and security. Graduates of this course will be very well placed to work with a range of organisations from Small to Medium Enterprises (SME) to large corporations.

This course will equip students with a strong understanding of cloud computing and the skills necessary to pursue a career in this area. The course is practice based with students learning through case studies, labs, workshops and online resources as well as face to face teaching. Students will utilise state of the art tools and methodologies to learn about cloud solutions.

The technical knowledge and skills delivered on the course covers both the underpinning knowledge and skills necessary to Cloud computing as well as some specialist areas (see Course structure below).

Students will also develop a strong understanding of the industrial and professional context, including how the existing processes, management and distribution infrastructures have developed, and how new and disruptive technologies are impacting. Upon completion, students will be able to evaluate cloud computing trends, recognize best practices, and deploy cloud solutions in a range of scenarios.

Alongside developing students' technical knowledge and practices, the programme is designed to develop soft skills such as communication, team work, creativity, project management and leadership. This is achieved by students working in groups, selecting cross departmental and cross institutional electives and regular participation in-class activities.

The course encompasses units and electives which will allow students to broaden their perspectives, knowledge and skills, engage and collaborate with students in other disciplines and develop personally and as professionals in line with the Mindsets and Skillsets Manifesto (see below).

Students will have the opportunity in the final year to focus their interest and demonstrate their capacity for independent learning, research and autonomous professional working by completing: a dissertation and a final major project.

On completion of the course, students will be able to understand and apply industry-standard practices and new and emerging technologies to solve real-world information technology problems. Graduates will be well equipped to enter a range of careers and specialism in the industry.

### **Ravensbourne University London**

Ravensbourne University London is a leading University specialising in creative arts, design and digital media. By working closely with the UK high tech industry and research institutions, Ravensbourne has developed a unique proficiency and practical knowledge of the latest disruptive technologies in this area. Ravensbourne graduates meet the skill demands across many industry sectors including media production, broadcasting, engineering, culture, fashion and architecture, and we are proud to achieve excellent graduate employment rates.

Though relatively small, Ravensbourne is very well-known and respected by the UK's media, production and broadcasting organisations, and we are active in various relevant industry forums. We maintain a Society of Motion Picture and Television Engineers (SMPTE) Student Chapter at Ravensbourne, which gives our students valuable access to a range of technical meetings and seminars, and provides our teaching staff the opportunity to engage and collaborate with a leading global standards organisation and its respected international members.

### **Mindsets and Skillsets Manifesto**

This programme is written based on the Mindset and Skillset Manifesto. Our students are at the core of this Manifesto where we are committed to thread these five Principles through everything

we do:

- Cultivate / Where the individual thrives
- Collaborate / Where disciplines evolve
- Integrate / Where education engages industry
- Advocate / Where purpose meets practice
- Originate / Where creativity meets technology

### Course Structure

The programme is divided into units of study that are taught over three academic terms in each year of study covering areas such as:

#### Year 1/Level 4

Computer Networks and Technologies  
Web Design and Database Development  
Cloud Computing Principles  
Software Design and Development

#### Year 2/Level 5

Cyber Security for Creative Industries  
Artificial Intelligence and Machine Learning  
Media Streaming and Cloud  
Cyber Security Principles  
The Internet of Things (IoT) and Cloud Computing

#### Year 3/Level 6

IT Service Management  
Data Analysis and Visualisation  
Risk and Project Management

Students will have the opportunity in the final year/level 6 to focus their interest and demonstrate their capacity for independent learning, research and autonomous professional working by completing:

- a Dissertation
- a Final Major Project

Each unit has a detailed specification with indicative content which is divided into 2 or 3 sections.

The first section covers industry knowledge to ensure students understand the topic effectively and are able to work in a variety of roles and positions regardless of vendor specific tools.

The second section covers relevant Amazon Web Services (AWS) specific “Knowledge Areas” where students will learn about available tools and technologies offered by AWS.

When relevant, a third section links the content of the unit with the Cyber Security Body of

Knowledge (CyBOK) framework to ensure alignment with the body of knowledge created by the National Cyber Security Centre (NCSC).

The structure of this programme has a number of distinctive characteristics comprising:

- Core taught units covering industry wide knowledge and AWS specific knowledge
- Covering 19 areas of CyBOK framework
- Supplementary tutorials underpinning the core units, including Maths
- Specialisation subject tutorials and additional engagement such as industry visits or external seminars.
- Collaborative learning stream providing a linked program of industry speakers from AWS and other industries
- Contextual Studies to develop students' wider knowledge, interests and skills in line with the Mindsets and Skillsets Manifesto

Companies operating in a range of markets and application areas will require different focuses for some of the taught unit subject areas. This course is uniquely structured to meet this requirement. Units are supplemented by specialisation subject workshops and supervised hours delivered by experts in a particular field and also supported by external speakers. Speakers will include experts from relevant areas in industry, Ravensbourne researchers and incubatees, and representatives from leading organisations in the field.

#### **Potential Careers in Cloud Computing:**

- Cloud Infrastructure Architect
- Network Engineer
- Cloud Consultant
- Cloud Engineer
- Cloud Data Architect
- IT Support Engineer
- System Administrator
- Project Manager

#### **QAA benchmark statement (2019)**

This programme uses QAA benchmark for computing and related subjects:

*“Computing is concerned with the understanding, design and exploitation of computation and computer technology - one of the most significant advances of the twentieth and twenty-first centuries. It is a discipline that:*

- *Blends elegant theories (including those derived from a range of other disciplines such as Mathematics, Engineering, Psychology, Graphical Design or well-founded experimental insight) with the solution of immediate practical problems.*
- *Underpins the development of both small and large scale, secure reliable and usable systems that support organisational goals.*
- *Helps individuals in their everyday lives.*
- *Is pervasive, ubiquitous and diversely applied to a range of applications, and important components are often invisible to the naked eye.”*

**The programme will meet the QAA benchmark standards in computing as follows:**

6.1 Benchmark standards are defined at threshold, typical and excellent levels for bachelor's degrees:

**The threshold level:**

- 6.2 Set here at the bottom of the honours class the threshold level would be treated by many higher education providers as disappointing performance, given the entry qualifications of their students, and it is not the outcome expected of them.
- 6.3 On graduating with an honours degree in Computing at threshold level, students should be able to:
  - i. demonstrate a requisite understanding of the main body of knowledge for their programme of study
  - ii. understand and apply essential concepts, principles and practices of the subject in the context of well-defined scenarios, showing judgement in the selection and application of tools and techniques
  - iii. produce work involving problem identification, the analysis, design and development of a system with accompanying documentation, recognising the important relationships between these stages and showing problem solving and evaluation skills drawing on supporting evidence
  - iv. produce small well-constructed programmes to solve well-specified problems
  - v. demonstrate generic skills, an ability to work under guidance and as a team
  - vi. member.
  - vii. identify appropriate practices within a professional, legal and ethical framework and
  - viii. understand the need for continuing professional development.

**The typical level**

- 6.4 Set here at the middle of the honours class this typical level would be treated by many higher education providers as median performance across all students.
- 6.5 On graduating with an honours degree in Computing at typical level, students should be able to:
  - i. demonstrate a sound understanding of the main areas of the body of knowledge within their programme of study, with an ability to exercise critical judgement
  - ii. critically analyse and apply essential concepts, principles and practices of the subject in the context of loosely defined scenarios, showing effective judgement in the selection and use of tools and techniques
  - iii. produce work involving problem identification, the analysis, the design or the development of a system, with appropriate documentation, recognising the important relationships between these
  - iv. the work will show problem solving and evaluation skills, draw upon supporting evidence and demonstrate a good understanding of the need for a high quality solution

- v. demonstrate generic skills with an ability to show organised work both as an individual and as a team member and with minimum guidance
- vi. apply appropriate practices within a professional, legal and ethical framework and identify mechanisms for continuing professional development and lifelong learning.

**Excellence**

- 6.6 While the Subject Benchmark Standards in this section are defined for threshold and typical levels, programmes in Computing will provide opportunities for students to achieve to their potential.
- 6.7 Such students:
  - i. will be able to contribute significantly to the analysis, design or the development of systems that are complex, recognising the important relationships between these
  - ii. will be creative and innovative in their application of the principles covered in the curriculum
  - iii. will be able to exercise critical evaluation and review of both their own work and the work of others.
  - iv. will be able to demonstrate team leadership skills

**Programme aims**

**Networking:** To develop professional skills in computer network architecture, directory services, operating systems and virtualisation.

**Databases:** To develop a sound understanding and application of databases, Big Data, Data Management and available database tools

**Software Development:** To gain requisite skills in software architecture, Software Development Lifecycle and possible approaches to software development.

**Security:** Develop essential knowledge in cyber security, access and permission controls, and encryption.

**Artificial Intelligence and Machine Learning:** Develop a strong understanding of various models and how AI/ML work hand in hand to develop intelligent tools for decision making

**Cloud Computing:** Develop an overarching specialist understanding and expertise end to end cloud computing concepts, tools and practices.

**Soft skills:** Develop skills such as confidence, commercial awareness, communication, team work, problem solving, leadership and organisation.

| Programme Learning Outcomes   |   |   |
|---|---|---|
| Level Four  | Level Five  | Level Six   |
| <p>LO 1 Research/Inspiration</p> <p>Demonstrate your capacity for information gathering techniques using a wide range of sources, providing visual, contextual and industry case-study research as appropriate.</p> <p>Related Principle: ORIGINATE</p> | <p>LO 1 Research/Inspiration</p> <p>Analyse and interpret information gathering techniques using a wide range of sources, providing visual, contextual and industry case-study research as appropriate.</p> <p>Related Principle: ORIGINATE</p>                     | <p>LO 1 Research/Inspiration</p> <p>Select and evaluate information gathering techniques using a wide range of sources, providing visual, contextual and industry case-study research as appropriate.</p> <p>Related Principle: ORIGINATE</p>                           |
| <p>LO 2 Concept/Ideation</p> <p>Generate first concept ideas or strategic project themes drawing upon reference to acquired research materials</p> <p>Related Principle: ORIGINATE</p>  | <p>LO 2 Concept/Ideation</p> <p>Analyse research materials leading to the generation of the ideation and concepts that inform and lead to project development.</p> <p>Related Principle: ORIGINATE</p>  | <p>LO 2 Concept/Ideation</p> <p>Critically appraise and evaluate appropriate research materials to generate workable concepts or strategic project themes that inform and underpin project development. Related Principle: ORIGINATE</p>                                |
| <p>LO 3</p> <p>Development/Prototyping</p> <p>Demonstrate a range of tests and solutions, informed by knowledge of the principles of the creative process.</p> <p>Related Principle: INTEGRATE</p>  | <p>LO 3 Development/Prototyping</p> <p>Analyse a range of potential pathways that result in appropriate solutions, informed by an understanding of the principles of the creative process.</p> <p>Related Principle: INTEGRATE</p>                                  | <p>LO 3</p> <p>Development/Prototyping</p> <p>Investigate potential pathways that result in appropriate solutions, informed by a systematic understanding of the principles of the creative process. Related Principle: INTEGRATE</p>                                   |
| <p>LO 4 (Pre) Production</p> <p>Identify, select and apply an appropriate selection of processes, materials and methods that inform creative and academic practice.</p> <p>Related Principle: COLLABORATE</p>   | <p>LO 4 (Pre) Production</p> <p>Employ relevant knowledge of production skills alongside a grasp of the creative potential of a selection of processes, materials and methods that inform creative and academic practice.</p> <p>Related Principle: COLLABORATE</p> | <p>LO 4 (Pre) Production</p> <p>Demonstrate systematic working knowledge, production skills, selection, application and understanding of a selection of processes, materials and methods that inform creative and academic practice. Related Principle: COLLABORATE</p> |
| <p>LO 5 Presentation /Storytelling for Influence</p> <p>Evidence effective communication of projects, whether in visual, oral or written form.</p>  | <p>LO 5 Presentation /Storytelling for Influence</p> <p>Select and employ effective methods of presentation and communication of projects in considering the audience/client and the purpose of the work,</p>   | <p>LO 5 Presentation /Storytelling for Influence</p> <p>Communicate projects creatively and professionally, whether in visual, oral or written form. Methods of presentation are appropriate</p>  |

|  |  |   |
|--|--|---|
| Related Principle: ADVOCATE  | whether in visual, oral or written form.   | to the audience/client and the purpose of the work.   |
|  | Related Principle: ADVOCATE  | Related Principle: ADVOCATE   |
| LO 6 Critical and creative mindsets Demonstrate enquiry into what makes good practice - both creatively and academically<br>Related Principle: ORIGINATE   | LO 6 Critical and creative mindsets Analyse conceptions of diverse practice and use this to inform a course of action<br>Related Principle: ORIGINATE  | LO 6 Critical and creative mindsets Evaluate a range of critical approaches in order to form an independent position<br>Related Principle: ORIGINATE  |
| LO 7 Employability Evidence of nurturing professional transferable and employability skills, including the ability to manage time and work to clear briefs and deadlines, respond to set goals, and communicate effectively.<br>Related Principle: CULTIVATE | LO 7 Employability Demonstrate professional transferable and employability skills, including the ability to manage time and work to clear briefs and deadlines, respond to set goals, and communicate effectively.<br>Related Principle: CULTIVATE | LO 7 Employability Effectively employ professional transferable and employability skills, including the ability to manage time and work to clear briefs and deadlines, respond to set goals, and communicate effectively.<br>Related Principle: CULTIVATE |
| LO 8 Professional Identity Evidence an emerging personal creative and professional identity<br>Related Principle: CULTIVATE  | LO 8 Professional Identity Investigate specific professional contexts to situate your own practice<br>Related Principle: CULTIVATE   | LO 8 Professional Identity Align your professional identity as a practitioner with a viable career context.<br>Related Principle: CULTIVATE   |

#### Learning and Teaching methods

This programme is developed in partnership with AWS Educate programme. It will be delivered through classes, lectures, workshops and online resources provided by the University and also access to the AWS Educate programme. Students will have access to the AWS dedicated portal with resources developed by experts from around the world. A special job portal will also be available for these students using the same platform.

The specific needs of industry vary significantly and require differentiated learning for their employees. This differentiation is achieved by supplementing the main core taught units with specialist tutorials and external lectures that provide deep and broad learning opportunities respectively.

The learning experience is an evolving journey starting in the first year at Level 4, an introductory level, progressing through the second year at Level 5, an intermediate level, and culminating in the third year at Level 6 with an advanced level of taught units and on a Final Major Project.

Induction consists of introductory seminars explaining the course structure and content, technical and learning resource inductions and individual tutorials for informal initial assessment.

The course uses a spiral approach in teaching where students are introduced to new concepts in first year at level 4, more advanced knowledge is then developed on these foundations in second year at level 5 and then final year students develop further analytical skills at level 6.

#### Level 4 – Skills, technology and principles:



At Level 4, your objective is to understand computing fundamentals, cloud technologies, software development and the principles that underpin them. You will engage in a range of practical projects and lab-work, and investigate roles and technologies through hands-on experience relevant to the taught subject.

You will have practical, theoretical and technical knowledge and understanding of various elements of computing to address problems that are well defined but complex and non-routine. At this level you should be able to analyse, interpret and evaluate relevant information and ideas.

**Level 5 – ideas, development and exploration.**

You will consolidate your technical knowledge, develop new skills and experiment technically and creatively on increasingly challenging projects. You will collaborate with other courses to broaden your experience, and with industry practitioners to better understand the uses of cloud computing.

At this level you should have developed an increased level of depth of knowledge and understanding of various areas of study.

**Level 6 – independent professional working.**

During the final year, you will consolidate your learning from Levels 4 & 5, and then focus on the analysis of emerging trends, technologies, and standards in the industry. Investigative techniques, independent working and the application of academic and industry research form the core of Level 6 studies.

Through your Final Major Project and Dissertation, you will create individual outcomes through self-initiated work, testing of ideas, and applying solutions that will prepare you for professional practice with confidence.

Teaching is normally undertaken by a team comprising full-time lecturers, part-time specialist tutors, and industry practitioners. All tutors will have recent and relevant knowledge and experience.

Ravensbourne has adopted and developed a practice led approach to teaching and learning. This means that you are provided with opportunities to apply and practice the taught theory in real situations.

Teaching blends the following methods:

- Lectures
- Tutorials
- Seminars & Workshops
- Visits & Masterclasses
- Laboratory & Practical Sessions
- Virtual Learning Environment Study and Interaction

The practice-led, hands-on approach employed by the tutors for the core units, the support gained by additional subject specialist tutorials, and the integration of the collaborative learning stream that brings contributions from industry experts are woven into an effective and unique format in this programme.

The course provides opportunities for students to develop and demonstrate knowledge and

understanding, qualities, skills and other attributes in the following areas.

On completion of the course students will have acquired:

- Knowledge and understanding are often developed through lectures, tutorials, directed reading etc. and assessed via portfolio and presentations etc.
- Intellectual skills may be developed through more active learning processes such as projects, group assignments, problem solving tasks and workshops etc. It may be assessed via assignments, reports, presentations etc
- Practical skills can be developed through practice in a subject specific field or work placement and assessment may be via demonstration of a skill or by providing evidence of having done so.
- Transferable skills can similarly be developed through active learning involving teamwork, communication, analytics, group working, leadership etc.

### Assessment Strategy

As you progress through your course, assessment points throughout the course enable you to practise and demonstrate the learning outcomes with confidence, and receive formative and summative feedback from tutors.

Each unit will have one or more assessments appropriate to the learning outcomes. 15-credit units will typically have one assessment. 30-credit units may have two individually weighted assessments. In some units, you may be given an overall holistic grade for the unit rather than for the individual elements of assessed work.

The methods of assessment and the submission date(s) will be specified in the Project brief issued at the start of each unit of study. Assessed work is usually submitted in electronic form, and will be graded against the assessment criteria using the University's grading descriptors. Some assessment is by group work. Part of the work may be assessed through individual or group presentation of the artefact or viva voce question and answer sessions with a panel, as specified in particular project briefs.

#### Typical assessment methods used during this programme may include:

- Presentations (Individual / Group)
- Demonstration of Artefact (Individual / Group)
- Reports (portfolio, technical or reflective)
- Video, Audio, and captioned Media
- Software Programme
- Electronic Project
- Course work

Every Taught Unit and Learning Activity has a dedicated page/section in the Virtual Learning Environment, containing all the information and documentation you require for that unit, such as Project Briefs. This includes an overview of the unit subject content and coverage, rationale of the brief, expected Learning Outcomes, assessment criteria, assessment methods, work submission deadlines, relevant reading material, tutor availability for discussion etc.

There are two types of assessment feedback, Formative and Summative:

- **Formative assessment** is provided so that you can improve on your work and achieve the project learning outcomes in an effective manner. Formative assessments are not graded but include desired performance goals. Formative assessment and feedback are made either as written or verbal feedback and takes place well before the end of the unit so you have time to integrate the feedback in your final submissions.

- **Summative assessment** is usually scheduled at the end of the unit along with a mark or grade. Summative assessment allows you to reflect upon your achievements and performance and provides guidance on how to improve on future modules. Summative assessment is generally written feedback, and will be made available to you via the Virtual Learning Environment.

### BSc (Hons) Cloud Computing unit list

| Order | Unit Code | *Unit Title   | Credits |
|-------|-----------|---|---------|
|       | Level 4   | Year 1  |         |
| 1.1   | CLC20102  | Computer Networks and Technology (Term 1)               | 30      |
| 1.2   | CLC20103  | Web Design and Databases (term 1)                       | 15      |
| 1.3   | CLC20104  | Cloud Computing Principles (Term 2)                     | 30      |
| 1.4   | CLC20105  | Software Design and Development (Term 3)                | 30      |
| 1.5   | C18101    | ** Themes for Contemporary Culture (Term 2 & 3)         | 15      |
|       |           |   |         |
|       | Level 5   | Year 2  |         |
| 2.1   | ECLC20202 | Cyber Security for Creative Industries (Term 1) E*      | 15      |
| 2.2   | ECLC20203 | Artificial Intelligence and Machine Learning (Term 1) E | 15      |
| 2.3   | CLC20204  | Media Streaming and Cloud                               | 15      |
| 2.4   | CLC20205  | Cyber Security Principles (Term 2)                      | 30      |
| 2.5   | CIE18200  | * Cross Institutional Elective (Term 2)                 | 15      |
| 2.6   | CLC20206  | Internet of Things (IoT) and Cloud Computing (Term 3)   | 30      |
| 2.7   | C18201    | ** Big ideas and Philosophies (Term 1 & 3)              | 15      |
|       |           |   |         |
|       | Level 6   | Year 3  |         |
| 3.1   | CLC20302  | IT Service Management (Term 1)                          | 15      |
| 3.2   | C18301    | Dissertation (Term 1)                                   | 30      |
| 3.3   | CLC20303  | Cloud Data Analysis and Visualisation (Term 2)          | 15      |
| 3.4   | CLC20304  | Risk and Project Management (Term 3)                    | 30      |
| 3.5   | CLC20305  | Final Major Project (Term 2 and 3)                      | 30      |

\* All units on this course are mandatory. Students will have the opportunity to choose a cross-departmental elective – one unit from a list of electives from any other courses run under the same school.

\*\* New Mindsets units - contextual studies, mandatory units across all departments

E\* Elective Unit

## Entry Requirements

Students will normally be expected to possess five GCSEs (grade C or above) or equivalent (including English and Maths) and also to hold at least one of the following or equivalent UK or international qualification:

- 2 A Levels (grades A-C) or 4 AS Levels (grades A-C)
- 2 vocational A Level (grades A-C)
- Level 3 Foundation Diploma or National Diploma
- Advanced Diploma (grades A-C)
- International Baccalaureate (28 points or above)

Where an applicant's first language is not English, proof of competence in English will be required. For undergraduate and postgraduate programmes, this will normally take the form of an approved English language test at B2 level in the Common European Framework of Reference. Any test for proficiency in English must have been achieved within 18 months preceding the date of entry. Individual programmes may have higher language requirements. Ravensbourne's international department will advise applicants on the language requirements for particular programmes.

## Selection Criteria

Ravensbourne will use a number of methods to assess an applicant's suitability for their course of choice. Primarily applicants are selected on the basis of:

- an applicant's prior academic achievement/qualifications and/or previous employment/life experience;
- assessment of the applicant's ability and aptitude to succeed on the course for which s/he has applied.

Students will be selected according to the generic criteria set out below:

### Personal attributes

- shows commitment, enthusiasm and interest in the subject area
- initiative and problem solving
- ability to communicate

### Creative process

- can generate ideas and use external sources to develop them
- ability to research an idea and follow it through to a finished product

### Study skills

- can understand and organise information clearly
- can investigate and analyse information
- shows reasoning and intellectual curiosity

### Professional skills

- has shown they can initiate and deliver projects
- can work in a team and with people with different skills
- has shown confidence with IT

### Career aspirations

- understands the relevance of the course to her/his career ambitions

- understands current debates within industry

### Accreditation of Prior Learning

Applications are welcomed from those who may not possess formal entry qualifications, mature students, those with work experience or with qualifications other than those listed above. Such applicants should demonstrate sufficient aptitude and potential to complete the course successfully. Applicants will be assessed at interview in accordance with Ravensbourne's Accreditation of Prior Learning Policy and Procedure.

Consideration will be given to admission with advanced standing to any candidate with verifiable evidence of prior certificated and/or experiential learning covering aspects of the course at level 4 or 5. Typical examples include:

#### 1+2 and 2+1 Routes

Students already possessing a HNC or equivalent may be eligible for direct entry into Level 5 of the programme subject to 75% of curriculum content matching the subjects covered in Level 4 of this course.

Students already possessing a HND, Foundation Degree or equivalent may be eligible for direct entry into Level 6 of the programme subject to 75% curriculum content matching the subjects covered in Level 4 and 5 of this course.

#### 3+1 route

Students already possessing a degree in computing or related field may apply for final year top-up (Level 6) to obtain a specialist degree in this field. This is subject to demonstration of sufficient prior knowledge or work experience to the course team.

| Course LOs | Level 4 |   |   |   |   | Level 5 |   |   |   |   | Level 6 |   |   |   |   |
|------------|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|---|---|
|            | C       | C | C | C | C | E       | E | C | C | C | C       | C | C | C | C |
|            | L       | L | L | L | 1 | C       | C | L | L | I | L       | 1 | L | L | L |
|            | C       | C | C | C | 8 | L       | L | C | C | E | C       | 8 | C | C | C |
|            | 2       | 2 | 2 | 2 | 1 | C       | C | 2 | 2 | 1 | 2       | 2 | 2 | 2 | 2 |
|            | 0       | 0 | 0 | 0 | 0 | 2       | 2 | 0 | 0 | 8 | 0       | 0 | 0 | 0 | 0 |
|            | 1       | 1 | 1 | 1 | 1 | 0       | 0 | 2 | 2 | 2 | 2       | 1 | 3 | 3 | 3 |
|            | 0       | 0 | 0 | 0 |   | 2       | 2 | 0 | 0 | 0 | 0       |   | 0 | 0 | 0 |
|            | 2       | 3 | 4 | 5 |   | 0       | 0 | 4 | 5 | 0 | 6       |   | 2 | 3 | 4 |
|            |         |   |   |   |   | 2       | 3 |   |   |   |         |   |   |   |   |
| LO1        | x       | x | x | x | x | x       | x | x | x |   | x       | x | x | x | x |
| LO2        | x       |   | x | x | x |         |   | x |   |   | x       | x | x | x | x |
| LO3        | x       | x |   | x |   |         |   | x |   |   |         |   |   |   | x |
| LO4        |         | x | x |   | x |         | x | x |   | x | x       |   | x |   | x |
| LO5        |         |   |   | x | x | x       |   |   | x |   | x       |   |   |   | x |
| LO6        |         | x | x |   |   | x       | x |   | x | x | x       | x | x | x | x |
| LO7        |         |   |   |   |   |         | x |   |   | x | x       |   | x |   | x |
| LO8        |         |   |   |   |   |         |   |   | x |   |         |   |   |   | x |

## Description of the Course

*BSc (Hons) Cloud Computing is developed in partnership with AWS-Educate programme. This degree provides students with first-hand knowledge and understanding of industry standard tools and practices for cloud computing. The course is designed in such a way that it will provide students with the flexibility and agility needed to keep pace with the technological developments of the future.*

*The BSc in Cloud Computing is the first honours degree in the UK that:*

- *has been developed in partnership with Amazon Web Services (AWS), one of the leading global providers of cloud services ;*
- *in addition covers the Cyber Security Body Of Knowledge (CyBOK 1.0) framework at this level.*

*Cloud computing is a multi-billion-pound industry that is responsible for revolutionising the way of delivering computer services like storage, networking, software and databases through the internet on demand. You will learn about cloud solutions through case studies, laboratories, workshops, and online resources. And, you will have access to state-of-the-art tools, and taught the latest methodologies.*

*As a student on the course you will have access to resources and content on AWS-Educate covered on this course from experts from around the world. Students will also gain access to the dedicated AWS Educate Job Board portal after completion of this programme.*

*The course will give you a strong grounding in the subject and also be flexible with what you want to learn. It covers a range of industry- standard technologies related to cloud computing and their practical implementations. You will be able to pursue your interests through a variety of units covering topics such as databases, networking or artificial intelligence. It will also equip you with a strong understanding of cloud computing skills.*

*Once you've graduated you'll be well-versed in a host of skills to work in this sector - you will be able to evaluate cloud computing trends, recognise best practices, and analyse and evaluate possible cloud solutions. And, you will hone valuable skills like teamwork and effective communication too.*

*You will be able to understand new and emerging technologies, and apply industry-standard practices whilst solving real-world information technology problems. You will be well equipped for a variety of careers in Cloud Computing.*

## Academic Framework – Course Diagram

|                                   | Term1  | Term2  | Term 3   |
|-----------------------------------|--|--|--|
| <b>Level 4</b><br><br>120 credits | Induction<br>(Inc. contribution from Theory)<br><br>0 credits  | <i>Themes in Contemporary Culture</i><br>15 credits                  |  |
|                                   | Web Design and Databases<br><br>15 credits   | Cloud Computing Principles<br><br>30 credits                         | Software Design and Development<br><br>30 credits                            |
|                                   | Computer Networks and Technologies<br><br>30 credits   |  |  |
| <b>Level 5</b><br><br>120 credits | Part 1 <i>Big Ideas and Philosophies</i><br><br>(7.5 out of 15 credits)  |  | Part 2 <i>Dissertation Proposal</i><br><br>(remaining 7.5 out of 15 credits) |
|                                   | Elective<br>Cyber Security for Creative Industries<br><br>or<br>Artificial Intelligence and Machine Learning<br><br>15 credits | Elective 2:<br><i>Cross-Institutional elective</i><br><br>15 credits | Internet of Things (IoT) and Cloud Computing<br><br>30 credits               |
|                                   | Media Streaming and Cloud<br><br>15 credits  | Cyber Security Principles<br><br>30 credits                          |  |
| <b>Level 6</b><br><br>120 credits | Dissertation Unit<br><br>30 credits (over 2 terms)   |  |  |
|                                   |  | Final major Project<br>30 Credits (over 2 terms)                     | FMP presentation   |
|                                   | IT Service Management<br><br>15 credits  | Cloud Data Analysis and Visualisation<br><br>15 credits              | Risk and Project Management<br><br>30 credits                                |