MODULE PROFORMA		
Full module title: Trends in Computer Science		
Module code: 4COSC003W	Credit level: 20	Length: 1 Semester
UK credit value: 20	ECTS value: 10	
College and School: College of Design, Creative and Digital Industries, School of Computer Science and Engineering		
Module Leader(s):		
Extension:	Email:	
Host course and course leader: BSc Computer Science		
Status: Core - BSc Computer Science, BEng/MEng Software Engineering		
Subject Board: COMENG		
Pre-requisites: none	Co-requisites:	
Study abroad: Yes		
Special features: None		
Access restrictions: None		
Are the module learning outcomes delivered, assessed or supported through an arrangement with an organisation(s) other than the University of Westminster. Yes		
Summary of module content The module focuses on Trends in Computer Science which currently attract considerable industry and academic interest. It allows students to aquire research skills which will prepare them for the group and final year project and will support their employability prospects. At the same time, it introduces key aspects of working as a professional in the world of computing, including consideration of ethics, privacy, data protection and confidentiality, and how these are incorporated into professional codes of practice such as the BCS Code of Conduct.		

Learning outcomes

By the end of the module the successful student will be able to:

LO1 Reflect on the role of Computer Science as a discipline and its different branches, its relationships to other scientific and technological disciplines, and the social effects it has had;

LO2 Discuss with confidence key features of current trends in Modern Computing and their impact on your career planning and empoyability prospects;

LO3 Summarise the key components of a professional code of conduct and reflect on how the concepts it enshrines will affect your professional life;
LO4 Work as a team to prepare a presentation on the legal and ethical aspects of specified case studies; and produce a report detailing your work.
LO5 Engage in research and work within a commonly accepted academic and professional framework which employs appropriate styles of documentation and referencing.

Course outcomes the module contributes to

BSc Computer Science: L4.5; L4.8; L4.9.

BEng/MEng Software Engineering: L4.5; L4.6; L4.7; L4.8.

Indicative syllabus content

- A brief history of Computer Science and its role to the modern world.
- Current Trends: Artificial Intelligence
- Current trends: Cryptocurrencies and the Blockchain.
- Current trends: Personal Data and Cybersecurity
- Current ternds: Big Data
- Current trends: Ethics, laws and policies for privacy, security and liability
- Professional Codes of Conduct and their application to personal and professional requirements and continuing professional development.
- Working within a team: how to allocate tasks and manage the process of integrating results; presenting results via a report that conforms to professional standards.
- Evaluation of the reliability of both formal and informal published material; primary and secondary sources of information. Effective communication, both verbal and written, within the context of trends in modern computing.
- Career management skills, including effective interview and CV writing techniques.

Teaching and learning methods

Lectures will be used to present much of the theoretical material. Tutorials will be used to work on case studeis and problem solving exercises that underpin the theoretical material, to explore professional, legal and ethical issues, and to provide time for group work on a major assignment.

Activity type	Category	Student learning and teaching hours*
Lecture/ Webcast Lecture	Scheduled	24
Seminar	Scheduled	
Tutorial	Scheduled	24
Project supervisor	Scheduled	
Demonstration	Scheduled	

Practical Classes and workshops	Scheduled	
Supervised time in studio/workshop	Scheduled	
Fieldwork	Scheduled	
External visits	Scheduled	
Work-based learning	Scheduled	
Total Scheduled		48
Placement	Placement	
Independent study	Independent	152
Total student learning and teaching hours		200

*the hours per activity type are indicative and subject to change.

Assessment rationale

The summative assessment strategy involves one group coursework with a report writing component, and a presentation component and an individual portfolio coursework that will assess the students' understanding of current trends in Computer Science while it will give them the opportunity to reflect on potential career choices.

The group coursework allows students to collect information from a variety of authoritative sources to offer an analysis of problems in familiar contexts. Students will have to produce a brief report, as per learning outcomes LO1, and LO4, as well as to discuss a professional code of conduct and the social, ethical and legal implications of the applications they considered (LO3). Presentations will have to be delivered to support the written work (LO4, LO5)

The individual Portfolio coursework allows the student to demonstrate their ability to discuss with confidence in a set time key features and modern trends in Computing (LO1, LO2), and to put this in context through a reflection on their future career.

Formative assessment will be embedded within the teaching and learning activities of the module. The students will be required to demonstrate proress of the analysis for both courseworks, and formative feedback will be continuously provided.

Assessment criteria

In order to pass the module the students will have to demonstrate a detailed understanding of areas which are key for Computer Science at the moment, and the ability to identify and use appropriate sources, whether for oral, or written work, using the appropriate referencing coventions. Moreover, they have to demonstrate an overall understanding of the social and ethical implications of the role of an IT professional. An emphasis will be put on the quality of their written and verbal skills which will be an integral part of the assessment.

Meeting the above criteria will mean a pass mark. Better students are expected to be able to provide fuller answers; they should be able to demonstrate an insight into the topics covered and to produce innovative answers to more challenging issues.

Assessment methods and weightings

Assessment name	Weighting %	Qualifying mark %	Qualifying set	Assessment type (e.g. essay, presentation, open exam or closed exam)

Group Coursework	*40*	*30*		*Coursework*
Portfolio	*60*	*30*		*Portfolio*

Synoptic assessment

No synoptic assessment

Sources

Link to the online reading list

https://rl.talis.com/3/westminster/lists/C9446529-0702-9724-C552-27092CE06A43.html

Additional specialist chapters/research papers/ websites on current trends will be included in the on-line reading list.