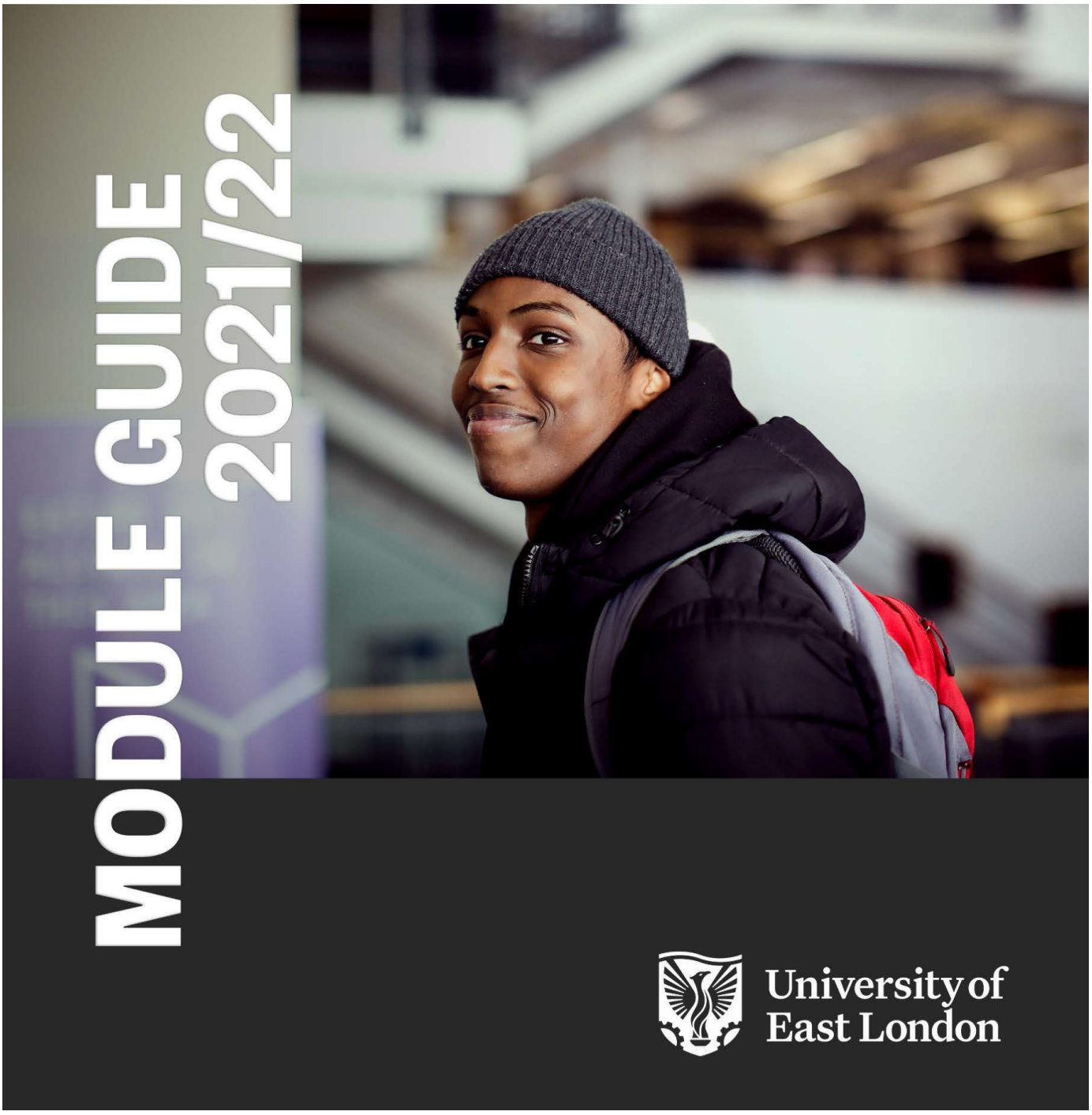
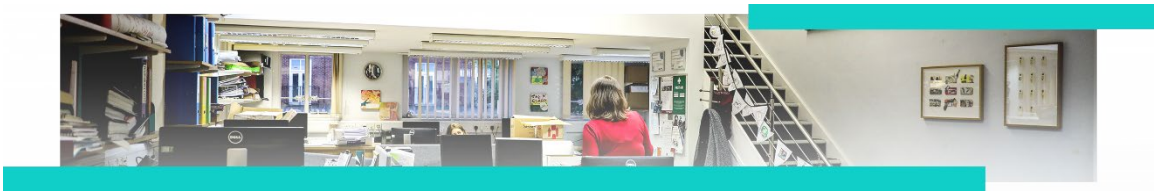
CD4002/CN4002
Computer Systems and Networks

(TERM 2)



School of Architecture, Computing and Engineering

CONTACT INFORMATION



Lecturers

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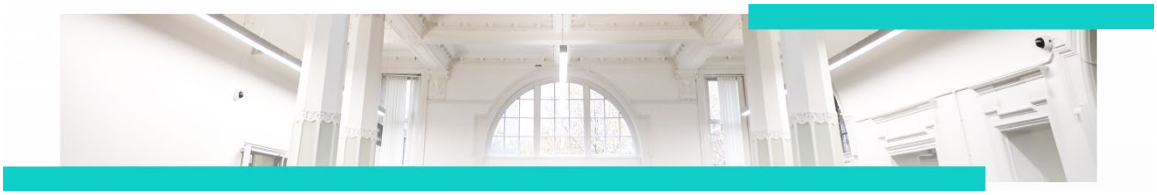
MODULE INTRODUCTION



This is a level four module within the Engineering and Computing Subject Area and is a core requirement of the following programmes:

BSc Computer Science
BSc Computer Science with Education and QTS
BSc Computing for Business
BSc Cyber Security and Networks
BSc Data Science and Artificial Intelligence
BSc Digital & Technology Solutions (Apprenticeship)

The module provides a basic understanding of computer architecture and the relationship between hardware and software components of a computer system. It also aims to equip students with an understanding of the fundamentals of computer networking. The module's delivery consists of lecture, Q&A and tutorial sessions. The lectures for each week will be pre-recorded and uploaded to the Moodle site the week before the tutorials**.** Q&A sessions will be online and tutorials face-to-face and on campus.

In addition to the course text that will be made available to you, all the teaching support materials will be on an accompanying **Moodle** site, and it is important that you consult this site regularly throughout the programme. **Microsoft Teams** will be the platform for conducting online Q&A sessions.

Hamid Hakimazari
Module Leader

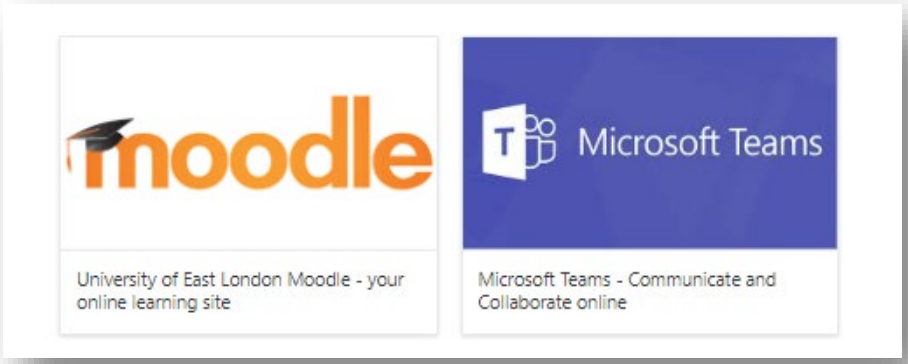
MODULE AIMS AND LEARNING OUTCOMES

Aims of the module	Learning outcomes for the module
The module aims to provide a basic understanding of computer architecture and the relationship between hardware and software components of a computer system. It also aims to equip students with an understanding of the fundamentals of computer networking.	At the end of this module, students will be able to: • Identify the purpose and function of the main components of computer systems and networks including hardware, software and protocols. • Explain the significance of standard network models such as the TCP/IP and OSI models. • Compare the performance of similar hardware components and devices. • Analyse the characteristics of different types of physical transmission media and the various international standards that have been defined for interfacing a device to the different media. • Configure system software, computer and network hardware. • Write simple assembly language programs.

KEY INFORMATION

Most of your time on this module will be spent in private study. You are expected to use this private study time to watch the lecture videos and prepare for tutorials and assessments.

As with all modules at UEL, extensive use will be made of an on-line virtual learning environment called **Moodle** and a communication tool called **Microsoft Teams**



You can access all your Moodle and Teams sites via UEL's **TrackMyFuture** portal

https://trackmyfuture.uel.ac.uk

You can also directly access your **CD4002/CN4002 Computer Systems and Networks Moodle site** by going to the following link:

https://moodle.uel.ac.uk/course/view.php?id=3716

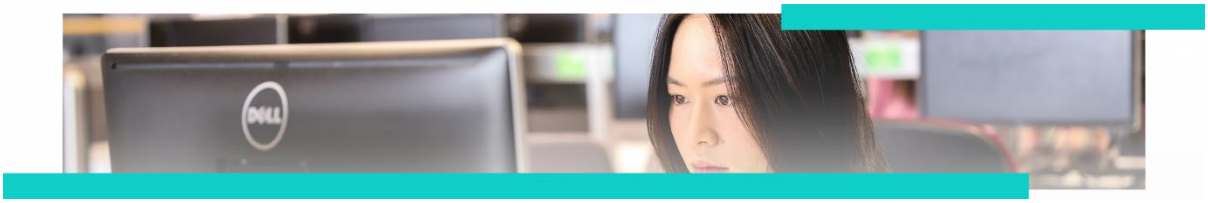
The **Moodle** site will contain a variety of information and resources including teaching and learning materials (recorded lecture videos, lecture slides, tutorial exercises, etc), a calendar of important events and assessment dates and important news regarding the operation of this module.

You should check Moodle regularly!

STUDENT FEEDBACK

Students can provide feedback at programme committee meetings and by making use of a feedback questionnaires at the end of the module.

ASSESSMENT INFORMATION



You must achieve an overall module mark of **40%** in order to pass this module. The module's assessment consists of **two Time Constrained Assessments (TCA).**

Assessment	Schedule
TCA1 (weighting 50%, 90 minutes) This will be based on lecture slides, tutorials and practical exercises presented in the first six weeks of Term 2.	Monday 21 March 2022
TCA2 (weighting 50%, 90 minutes) This will be based on lecture slides, tutorials and practical exercises presented in the second six weeks of Term 2.	Monday 6 June 2022

Resit Assessment

If you do not pass your module at the first attempt, you will have a resit opportunity with the mark capped at 40%.

MORE INFORMATION

Assessment & Feedback Policy:
https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies (click on other policies)

Extenuating Circumstances

Extenuating Circumstances are circumstances which:

- impair your examination performance, preventing you from attending examinations or other types of assessment, or
- prevent you from submitting coursework or other assessed work by the scheduled deadline date, or within 24 hours of the deadline date

Such circumstances rarely occur and would normally be:

- **unforeseeable** - in that you could have no prior knowledge of the event concerned, and
- **unpreventable** - in that you could do nothing reasonably in your power to prevent such an event, and
- expected to have a **serious impact** on performance

You can make an application for extenuating circumstances by following this link:
https://uelac.sharepoint.com/StudentSupport/Pages/Extenuation-information.aspx

RETURN OF WORK AND FEEDBACK

Arrangements for the publication of results is stated in the Course Handbook. Formal results are ONLY available in UEL Direct and will be published within 8 working days of the Board, where results are formally confirmed. Any other results are provisional / indicative but not approved.

You will receive feedback throughout your course through the following:

X	one-to-one or individualised *(i.e. tutorials, conversations with supervisors, or individualised comments on assignments)*
X	informal feedback *(i.e. through in-class discussions or online forums)*
X	self-evaluation *(i.e. online checklists or reflective submissions)*
X	Moodle Quizzes

Feedback and students' marks should be provided within 15 working days of the due date for summative work (i.e. work that counts towards the final course grade) and formative work (i.e. work that is developmental and designed to help you improve).

Whilst feedback will be given on draft/formative work, it shouldn't be assumed that every aspect will be identified.

ONLINE SYSTEM FAILURES

If you experience a problem with your online assessment, you must notify your lecturer/tutor by email immediately. If UEL finds that the issue with the system was significant, you will receive an email notifying you of an alternative assessment date.

TEACHING SCHEDULE

CD4002/ CN4002 Computer Systems and Networks Teaching Schedule 2021/22

Week No.	Lecturer	Tentative Topics
1	AE	The Evolution of Computing Devices
2	AE	Number Systems
3	AE	CPU and Memory Subsystem
4	AE	Input/Output Methods
5	AE	Peripheral Devices
6	AE	Operating Systems
7	HH	Network Fundamentals
8	HH	Network Protocols and Models
9	HH	Network Access
10	HH	Ethernet
11	HH	IPv4 Addressing
12	HH	Subnetting IP Networks

ATTENDANCE REQUIREMENTS

As a UEL student you are expected to attend all scheduled sessions, including lectures, seminars, group work and tutorials – whether online or face to face. You are also expected to be punctual, to be respectful of others' time as well as your own, to participate whilst present, to put in time to study between classes, to prepare for taught sessions and to be active participants in both group work and your own learning experience.

ASSESSMENT FEEDBACK

WHAT IS FEEDBACK?

Feedback is crucial for your learning and it is an important part of the academic cycle. It tells you what the strengths are of your work, what its weaknesses are and how it can be improved.

WHY IS FEEDBACK IMPORTANT?

Feedback is the most effective way to: Help you understand how to succeed in your assessments; Help you produce better work for the future; Signpost you to other resources for assistance.

If you pay attention to feedback, particularly where the same comment is made in several modules, you can use the information to improve.

WHERE DO I GET FEEDBACK?

- When a tutor comments on your answers in seminars/lectures/workshops
- General comment on assessment performance in lectures and seminars
- General comment on questions prepared for seminars
- When another student makes comments on your presentation
- When you produce practice questions for a tutor who gives comments
- When you receive written comments on your work submitted either as coursework or exam
- When you look at general feedback on module performance on UEL Direct.
- When you see your Academic Adviser with all your assessment feedback for general advice. You should always do this after each assessment period.

MORE INFORMATION

Link to information about the **Centre for Student Success**: https://uelac.sharepoint.com/sites/studenthandbooks/SitePages/The-Centre-for-Student-Success.aspx

READING AND RESOURCES

CORE:

Englander, I. S. (2013) The architecture of computer hardware, systems software and networking: an information technology approach. 5th edn. Oxford: Wiley-Blackwell.

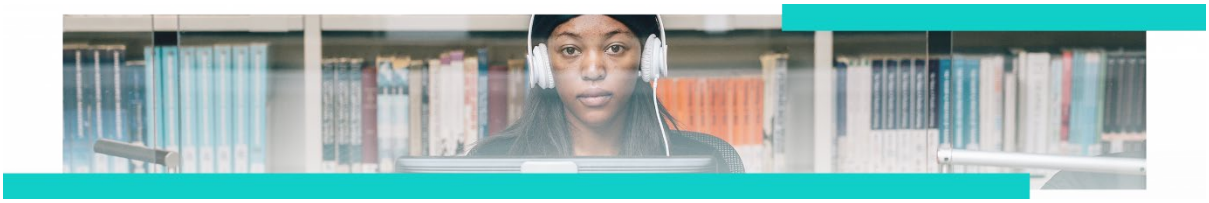
Tomsho, G. (2016) Guide to Networking Essentials. 7th edn. Boston: Course Technology, Cengage Learning.

Reference Textbooks:

Stallings, W. (2012) Computer organisation and architecture: designing for performance. 9th edn. London: Pearson Eductation.

Tanenbaum, A. and Wetherall, D.J. (2013) Computer Networks. 5th edn. Pearson New Internantional Edition.

KEY LINKS



Academic Appeals
https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies/Student-Appeals

Academic Integrity
https://uelac.sharepoint.com/LibraryandLearningServices/Pages/Academic-integrity.aspx

Academic Tutoring
https://www.uel.ac.uk/centre-for-student-success/academic-tutoring

Assessment and Feedback Policy
https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies (click on other policies)

Bus Timetable
https://uelac.sharepoint.com/EstatesandFacilitiesServices/Pages/Timetable.aspx

Centre for Student Success
https://www.uel.ac.uk/centre-for-student-success

Civic Engagement
https://www.uel.ac.uk/Connect/Civic-Engagement

Complaints procedure
https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies/Student-Complaint-Procedure

Counselling
https://uelac.sharepoint.com/StudentSupport/Pages/Health-And-Wellbeing.aspx

Disability support
https://uelac.sharepoint.com/StudentSupport/Pages/Disability-And-Dyslexia.aspx

Engagement & Attendance Policy
https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies (click on other policies)

Equality and Diversity Strategy
https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies (click on other policies)

Extenuation Procedures
https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies/Extenuation-Procedures

Frequently-Asked Questions
https://uelac.sharepoint.com/sites/studenthandbooks/ModuleGuides/SitePages/Frequently-Asked-Questions.aspx

Health and Safety
https://uelac.sharepoint.com/EstatesandFacilitiesServices/Pages/health-&-safety.aspx

IT Support
https://uelac.sharepoint.com/sites/ITServices/SitePages/Problem_Reporting/Reporting-Problems.aspx

Library Archives and Learning Services
https://www.uel.ac.uk/lls/

Manual of General Regulations
https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies/Manual-of-General-Regulations

Mentoring
https://www.uel.ac.uk/centre-for-student-success/mentoring