

CSCU9B1 Essential Skills for the Information Age**Course Organiser**

| | Room Number | E-mail Address |
|------------------------------|--------------------|-----------------------------|
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Prerequisites

None. However, students who intend following a degree with further computer science should take CSCU9A1 instead.

Credits

20 credits at SCQF level 8

Learning Outcomes

By the end of the module students will understand:

- Basic computer architecture and the different types of memory and storage devices.
- What an operating system is and how it differs from applications software.
- How their desktop machine fits into the university network and ultimately to the rest of the world.
- The basic principles of networking and mobile computing.
- The key ideas in WWW design.

They will also have gained the practical skills to be able to:

- Organise their workload efficiently.
- Present their ideas through written, electronic and oral communication.
- Confidently use the Windows interface and the main components of MS Office (Word, Excel, PowerPoint, and Access).
- Adapt and incorporate images into documents using tools such as Paint and Gimp.
- Create web pages with text editors and other tools, apply style sheets and use basic HTML5.

They will have increased awareness of the place of computers in the modern world, and of some social issues arising from the use of computers.

Transferable Skills

The packages being taught are industry standard and so the practical IT skills developed by students can be generalised and used in any discipline where there is a need for:

- The preparation of electronic and paper documentation
- The storage, retrieval, manipulation and visualisation of large amounts of data
- The use of electronic aids for communication

Students will develop problem-solving skills that can be adapted and used in many other situations where structured, analytical thought is required. Finally, they will be required to demonstrate the ability to apply theory and techniques to unseen problems, to work independently and under a time constraint.

Contents

- Computer systems (via online resources)
 - Introduction to the University's computer systems
 - Computer architecture
 - Files and file systems
 - Operating systems
- Networks and the Internet (via online resources)
 - Network topology
 - The Internet (WWW, e-mail, FTP, search engines)
 - Network protocols
 - Domains and routing
 - Client-server architectures
 - Mobile Computing
- Text and Graphics (7 practicals)
 - Word processing
 - Document Organisation, Referencing, Security and Macros
 - Mail merges and report production
 - Image manipulation
 - Creating electronic presentations
 - Timing, Animation and Multimedia in presentations
- Spreadsheets (2 practicals)
 - The nature of a spreadsheet
 - Formulas, relative/absolute addressing
 - Producing graphs and charts
 - Working with groups of spreadsheets
- Databases (3 practicals)
 - The nature of a database
 - Tables and relations
 - Queries
 - Report production
- Web design (3 lectures, 7 practicals)
 - Introduction to XHTML and HTML5
 - Using Cascading Style Sheets
 - Using simple scripts and embedding multimedia objects
 - Design for usability and accessibility

Textbooks

This year we are making a number of tutorials and videos available online. See Canvas for the links to these. These will be required reading for the assessments.

We recommend the following textbooks as background reading:

- Don't Make Me Think!: A Common Sense Approach to Web Usability, Steve Krug, New Riders; 2 edition (18 Aug 2005). ISBN-13: 978-0321344755
- Creating a Web Site: The Missing Manual, Matthew MacDonald (2011), O'Reilly, E-book ISBN: 9781449398743, Print ISBN: 144939874-X
- Discovering Computers, Essentials, Vermaat et al, Course Technology, ISBN-13: 9781305392076
- None of the above texts cover HTML or Microsoft Office in any great detail. There are abundant resources available for learning about these topics, including websites, books (many of which are in the University library) and online help.

Assessment

Assessment for CSCU9B1 consists of:

- Practical Checkpoints (45%)
- Multiple Choice Quiz on Computer Systems and Networks(5%)
- Website design, implementation and testing (25%)
- Class test (spreadsheets) (25%)

Marks for each component are combined according to University procedures

<http://www.stir.ac.uk/regulations/undergrad/assessmentandawardofcredit/>

Requirements

For this module the compulsory assessments are:

- attempt the Systems and Networks Quiz
- attempt the web design assignment
- attend the Spreadsheet test

Failure to attempt either of the compulsory items of coursework will result in a fail grade for the module as a whole. If, at any stage, you foresee any difficulties in meeting these requirements, please contact the Course Organiser **as soon as possible**. Students who can show good cause for failure to submit may be exempted from the requirements. 'Good cause' may include illness (for which a medical certificate or other evidence will be required).

Assessed coursework that is submitted late will be accepted up to seven calendar days after the submission date (or expiry of any agreed extension) but the mark will be lowered by three points per day or part thereof. After seven days the piece of work will be deemed a non-submission, and will result in the award of 0% for the module as a whole.

Reassessment

Students with a fail mark in the module are eligible for reassessment (provided the requirements above are satisfied). The reassessment will be a further attempt of the Spreadsheets Test or the Web Assignment, as appropriate.

Plagiarism

Work which is submitted for assessment must be your own work. All students should note that the University has a formal policy on plagiarism which can be found at <http://www.quality.stir.ac.uk/ac-policy/Misconduct.php>.

Plagiarism means presenting the work of others as though it were your own. The University takes a very serious view of plagiarism, and the penalties can be severe (ranging from a reduced grade in the assessment, through a fail grade for the module, to expulsion from the University for more serious, or repeated, offences). Specific guidance in relation to Computing Science assignments may be found in the Computing Science Student Handbook.

Attendance Requirements

Attendance at practicals will be recorded. If we become concerned about your attendance we will contact your personal tutor. If you are worried about your ability to attend classes please seek advice from the module coordinator, your personal tutor, or other University Services.

You are expected to attend all lectures and practical classes, in order to derive the maximum benefit from your time at University. It is your responsibility to make the most of the opportunities for education offered to you by the University.