

## Module Specification

1. Factual information			
<b>Module title</b>	<b>T215B: Communication and Information Technologies B</b>	<b>Level</b>	<b>2</b>
<b>Module tutor</b>	TBA	<b>Credit value</b>	<b>30</b>
<b>Module type</b>	Taught	<b>Notional learning hours</b>	<b>8</b>

2. Rationale for the module and its links with other modules	
<p>Digital communication and information technologies have become fundamental to the operation of modern societies. New products and services are rapidly transforming our lives, both at work and at play. This module will help you to learn more about these developments through studying the core principles on which the technologies are built and, through a range of online and offline activities, investigate new topics and technologies.</p> <p>This module will also help you to raise students' awareness of some of the technologies and issues associated with safeguarding the privacy of digital information and the people who are affected by its use – hence the themes 'protecting' and 'prying'.</p> <p>These themes are explored through case studies and practical examples. A recurring approach is the use of an analytical framework that uses five themes to examine the technologies and issues: <i>convenience, identity, reliability, acceptability and consequences</i>.</p>	
3. Aims of the module	
<p>The aims of this module are to:</p> <ol style="list-style-type: none"> <li>1 Increase the knowledge of the basic principles of communication and information systems and technologies, and the issues relating to their use</li> <li>2 Develop the ability to apply the understanding of communication and information technologies to learn about new or unfamiliar systems and technologies</li> <li>3 Enable students to explore how personal and private data can be protected.</li> <li>4 Help students develop an understanding of audio and video encoding and editing.</li> <li>5 Develop a variety of skills appropriate to a practitioner in communication and information technologies.</li> </ol>	

4. Pre-requisite modules or specified entry requirements	
<p>Students are expected to have completed study of their T215A before they can undertake the T215B module .</p>	

<b>5. Intended learning outcomes</b>	
<b>A. Knowledge and understanding</b>	<b>Learning and teaching strategy</b>
<p>Upon completing this module, students should be able to:</p> <p>A1. Describe key principles and concepts relating to digital data including the availability of, mechanisms for protecting digital personal data, and the associated privacy and security issues related to it.</p> <p>A2. Explain major trends of the fastest expanding areas of ICT, that of audio and video production and its potential for entertaining us.</p> <p>A3. Understand key concepts, issues and technologies associated with online communication.</p> <p>A4. Enhance the scientific reading and writing skills for writing long reports.</p>	<ul style="list-style-type: none"> <li>• 25% face-to-face tutorial sessions</li> <li>• TMA work</li> <li>• Module learning booklets and support material</li> </ul>
<b>B. Cognitive skills</b>	<b>Learning and teaching strategy</b>
<p>Upon completing this module, students should be able to:</p> <p>B1. Produce descriptions and explanations of the fundamental building block of all modern security systems which is encryption.</p> <p>B2. Apply their understanding of the themes of security framework for communication and information systems that feature in the module, their underlying technologies and component devices for applying biometrics as a measurement of human beings used to identify them in the context of authentication.</p> <p>B3. Use knowledge gained from the module to help them to figure out new or unfamiliar topics; conveying information in audio and visual format, introduction for some tools that will assist in obtaining a simple digital video from a number of digital still images.</p> <p>B4. Describe and discuss some of the technological, social, legal, ethical and personal issues that relate to securing personal data like preventing unauthorized people from having access to private information.</p> <p>B5. Evaluate or compare communication and information systems suggested for a particular need and give a justified recommendation on their appropriateness</p>	<ul style="list-style-type: none"> <li>• 25% face-to-face tutorial sessions</li> <li>• TMA work</li> <li>• Module learning booklets and support material</li> </ul>

C. Practical and professional skills	Learning and teaching strategy
<p>Upon completing this module, students should be able to:</p> <ul style="list-style-type: none"> <li>C1. Critique draft materials in order to improve them</li> <li>C2. Experiment with some fingerprint recognition tools and evaluate the system using the given data set.</li> <li>C3. Use specialised software tools as AviSynth script language to provide the students with basic skills required to produce video from still images.</li> </ul>	<ul style="list-style-type: none"> <li>• 25% face-to-face tutorial sessions</li> <li>• TMA work</li> <li>• Module learning booklets and support material</li> </ul>

D Key transferable skills	Learning and teaching strategy
<p>Upon completing this module, students should be able to:</p> <ul style="list-style-type: none"> <li>D1. Communicate complex information, arguments and ideas effectively and without plagiarism on a range of topics relating to communication and information systems through a variety of different media, using styles, language and images appropriate to purpose, audience and medium</li> <li>D2. Perform modular arithmetic calculations to obtain the ciphers for various encryption algorithms.</li> <li>D3. Use information technology to find information from various sources and evaluate that information</li> <li>D4. Develop a range of skills as an independent learner to support them in learning through the module materials and through other resources that they seek out</li> <li>D5. Work effectively as part of a group in a distance setting where association is undertaken via computer-mediated communication.</li> </ul>	<ul style="list-style-type: none"> <li>• 25% face-to-face tutorial sessions</li> <li>• TMA work</li> <li>• Module learning booklets and support material</li> </ul>

6. Indicative content.
<p>The content of the module is split into two blocks: blocks 4 and 5. The content of blocks 4 and 5 is briefly described below:</p> <ul style="list-style-type: none"> <li>1. Block 4 – Protecting and prying. All citizens of developed countries have a digital profile created by the collection and storage of personal information by government agencies, commercial organisations and the monitoring and surveillance cameras that pervade our public spaces. This block explores how personal and private data can be protected, identifies measures that individuals can take to safeguard their identities, and discusses some of the issues arising from mass surveillance, monitoring and data collection.</li> </ul>

## 6. Indicative content.

This block will also give you some basic ideas about biometrics and their characteristics by looking at how biometrics can be used to identify people in the context of security systems. The block focuses on fingerprint-recognition system and facial-recognition systems, and took the particular example of fingerprints to examine in some detail how biometric data can be captured, converted to a template and used in a recognition system. This block introduces and discusses some of the concerns associated with the use of biometrics through exploring the five-theme framework.

2. Block 5 – Entertaining and explaining. In this block the themes of entertaining and explaining are explored by using digital media to present a topic in an entertaining way. It focuses on the production of a short film clip using a sequence of still images with embedded audio and screen captions. During their work students will develop an understanding of audio and video encoding and editing.

This block develops your skills in using a number of different software applications like AviSynth which is designed for creating, editing and processing videos through the use of text commands called scripts. Those scripts used by AviSynth software provide the instructions to produce a video output that includes the manipulation of still images, the addition of sound and texts and some effects such as transitions between images.

## 7. Assessment strategy, assessment methods and their relative weightings

TMA Work: 20%

MTA: 30%

Exam: 50%

## 8. Mapping of assessment tasks to learning outcomes

Assessment tasks	Learning Outcomes																
	A1	A2	A3	A4	B1	B2	B3	B4	B5	C1	C2	C3	D1	D2	D3	D4	D5
TMA	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
MTA	✓			✓	✓		✓					✓		✓			
Exam	✓	✓		✓	✓		✓	✓				✓		✓			

## 9. Teaching staff associated with the module

Tutor's name and contact details

Contact hours

<b>9. Teaching staff associated with the module</b>	
<b><u>Tutor's name and contact details</u></b>	<b><u>Contact hours</u></b>
<b>Dr. Farid jradi</b> Faculty of computer studies Arab open university-Kuwait P.O. Box 830 Ardiya, 92400 Kuwait ☐ <b>+965 2439 4294</b> , ☐ <a href="mailto:fjradi@aou.edu.kw">fjradi@aou.edu.kw</a>	

<b>10. Key reading list</b>				
<b><u>Author</u></b>	<b><u>Year</u></b>	<b><u>Title</u></b>	<b><u>Publisher</u></b>	<b><u>Location</u></b>
<b>Module adopted from OU, UK.</b>				

<b>11. Other indicative text (e.g. websites)</b>
<a href="https://lms.arabou.edu.kw">https://lms.arabou.edu.kw</a>