

Module:	BUS130 Introduction to Information Systems
ECTS Credits	6
Level	100
Programme Year	Bachelor of International Business Management - Year 1



MODULE DESCRIPTION

The module provides students with an introductory understanding of the concept of Information Communication technologies and related infrastructure. We examine digital infrastructures that underpin so much of current business, government and social life - including the Internet and World Wide Web, and the many other systems and services that build upon these. Concepts and theories are introduced that help us understand the emergence of digital infrastructures, their architecture (structure), their economics, and the variety of services they can potentially offer, including access to data services and unlimited communications capacity.

Students learn how to apply critical thinking whilst developing a concrete understanding in methodologies used to explore various opportunities, considering the heightened risks of these infrastructures from various perspectives. We highlight the issues and challenges faced by decision makers in government, businesses and infrastructure provider organisations as digital infrastructures become more central in economic and social life. This includes issues of national and international standards, laws and regulation. The course also addresses these issues as they relate to the individual user of digital services.

To provide focus and depth, the module focuses on the Internet as our most general and fundamental digital infrastructure for communication, and the World Wide Web as the core information infrastructure. It also considers three other digital infrastructures of relevance today: cloud computing, mobile devices, and social media. You will learn the key characteristics of the technologies that underpin each case, how these infrastructures have emerged, and how they are being used by individuals, businesses and governments. The unit allows students to obtain a robust understanding of the theoretical underpinnings of current developments in digital infrastructures and to apply this to other contemporary examples including concepts of platforms, cyber security, bitcoins, business model innovation and the Internet of Things (IoT).

LEARNING OUTCOMES

Knowledge and Insights

On completion of this module the successful student will be able to:

1. Illustrate a theoretical and practical understanding of current digital technology;
2. Associate how business intelligence solutions impacts the way businesses use information.
3. Demonstrate an understanding of latest digital technology trends.

Skills and Attitudes

This module will call for the successful student to:

4. Summarise evidence to assist in strategic planning and usage of information systems;
5. Demonstrate a basic proficiency in the various tools needed for further advancement in the Microsoft Office Specialist certification process and the on-line training programmes, for the external professional qualification;

LEARNING, TEACHING AND ASSESSMENT STRATEGIES

LEARNING MATERIALS

- MANDATORY:
 - Laudon, K.C. and Laudon, J.P. Management Information Systems: Managing the Digital Firm. (Pearson, 2020) 16th edition.
 - Laptop / Tablet with Microsoft Excel , PowerPoint & Microsoft Word installed (*Please bring to class to allow interactivity*)
- RECOMMENDED:
 - Vermaat, M.E., Sebok, S.L., Freund, S. M., Campbell, J.T., & Frydenberg, M. (2018). Discovering computers ©2018: Digital technology, data, and devices. Boston: Cengage.

LEARNING & TEACHING METHODOLOGY

- This module combines classroom lectures with self-learning and directed reading.
- To facilitate student-centred learning: *videos, group exercise/discussions, MOS assignments and discussions of real life cases* will be used as a learning mechanism.
 - This approach allows the student to analyse and obtain deeper understanding of current business computing issues and trends.
- Case analysis also provides the opportunity to analyze the complexity involving in adoption of current digital technologies, thus also enabling students to become proficient in communication and decision making.
- *Assessment Scheme Formative feedback* will be provided *throughout the semester*, with learning activities such as *self-check activities that are specifically designed to provide guidance and feedback*.
- Students will be required to study relevant topics before each class in order to be able to participate actively and interact during classroom sessions.

ASSESSMENT EXPLAINED

Assessment Scheme

Formative feedback will be provided following a class exercise, and other learning activities such as self-check activities that are specifically designed to provide guidance and feedback.

Summative assessment consists of three major components selected in order to ensure students demonstrate an overall understanding of MOS applications and module..

Assessment weighting

The three assessed components are:

- 30% -Two separate Individual assignments due in weeks 4 and 7 (each worth 15%) to assess the understanding and application of *MOS applications- Excel and Powerpoint*. ***This assessment addresses learning outcomes 3 & 5.***
 - 30% Written report due by week 11, on a current Information Systems management issue of their choice,
 1. Research and analyse the issue and present a detailed RESEARCH PAPER of at least 3000 words on your chosen subject, utilizing proper report design methodology.
 2. The research paper will require the student to make usage of the skills and knowledge acquired during this course, as well as to assess the understanding and application of *MOS application- Microsoft Word*
 3. *The marking will be based on the logic and thoroughness of the research analysis, the presentation of the analysis in written form and the demonstrated level of in-depth of research carried out. This assessment addresses learning outcomes 2, 3, 4 & 5.*
 - 40% Final exam to assess the understanding and knowledge of the entire syllabus. ***This assessment addresses learning outcomes 1, 2, & 5.***
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DETAILED SYLLABUS

Week	Date	Textbook Chapters /Readings	Activities
PART I: ORGANIZATIONS, MANAGEMENT, AND THE NETWORKED ENTERPRISE - Bring an OPEN MIND and your laptop/tablet			
1		Laudon-Chapter 1 GUIDED LEARNING 1.1 How are information systems transforming business, and why are they so essential for running and managing a business today? 1.2 What is an information system? <ul style="list-style-type: none"> • How does it work? • What are its management, organization, and technology components? • Why are complementary assets essential for ensuring that information systems provide genuine value for organizations? 1.3 What academic disciplines are used to study information systems, and how does each contribute to an understanding of information systems?	<ul style="list-style-type: none"> • Icebreaker • Discussions • Reflections • Guided Learning
2		Laudon-Chapter 2 GUIDED LEARNING 2-1 What are business processes? How are they related to information systems? 2-2 How do systems serve the different management groups in a business and how do systems that link the enterprise improve organizational performance? 2-3 Why are systems for collaboration and social business so important and what technologies do they use? 2-4 What is the role of the information systems function in a business?	<ul style="list-style-type: none"> • Discussions • Reflections • Guided Learning
		LAPTOPS / TABLETS must be brought to class for in-class activity. GUIDED LEARNING Excel Made Simple Part I	<ul style="list-style-type: none"> • Practical Exercises • Guided Learning • <u>EXCEL Assignment Part A handed out</u>

Week		Date	Textbook Chapters /Readings	Activities
3	3A. Information Systems, Organizations, and Strategy		Laudon-Chapter 3 GUIDED LEARNING 3-1 Which features of organizations do managers need to know about to build and use information systems successfully? 3-2 What is the impact of information systems on organizations? 3-3 How do Porter’s competitive forces model, the value chain model, synergies, core competencies, and network economics help companies develop competitive strategies using information systems? 3-4 What are the challenges posed by strategic information systems and how should they be addressed?	<ul style="list-style-type: none"> • Discussions • Reflections • Guided Learning
	3B. Assessing Microsoft Office Suite Understanding – Microsoft Excel II		LAPTOPS / TABLETS must be brought to class for in-class activity. GUIDED LEARNING Excel Made Simple Part II	<ul style="list-style-type: none"> • Practical Exercises • Guided Learning • <u>EXCEL Assignment Part B handed out</u>
4	4A. Ethical and Social Issues in Information Systems		Laudon-Chapter 4 GUIDED LEARNING 4-1 What ethical, social, and political issues are raised by information systems? 4-2 What specific principles for conduct can be used to guide ethical decisions? 4-3 Why do contemporary information systems technology and the Internet pose challenges to the protection of individual privacy and intellectual property? 4-4 How have information systems affected laws for establishing accountability, liability, and the quality of everyday life?	<ul style="list-style-type: none"> • Discussions • Reflections • Guided Learning
	4B. Assessing Microsoft Office Suite Understanding – Microsoft PowerPoint		LAPTOPS / TABLETS must be brought to class for in-class activity. GUIDED LEARNING Powerpoint Made Simple	<ul style="list-style-type: none"> ✓ <u>Excel Assignment par A&B due (15%): Due @14:00</u> • Practical Exercises • Guided Learning

Week		Date	Textbook Chapters /Readings	Activities
5	5A. IT Infrastructure and Emerging Technologies		Laudon-Chapter 5 GUIDED LEARNING 5-1 What is IT infrastructure and what are the stages and drivers of IT infrastructure evolution? 5-2 What are the components of IT infrastructure? 5-3 What are the current trends in computer hardware platforms? 5-4 What are the current computer software platforms and trends? 5-5 What are the challenges of managing IT infrastructure and management solutions?	<ul style="list-style-type: none"> • Discussions/Debate • Case Study Analysis • Guided Learning
	5B. Assessing Microsoft Office Suite Understanding – Microsoft PowerPoint		LAPTOPS / TABLETS must be brought to class for in-class activity. GUIDED LEARNING PowerPoint Made Simple	<ul style="list-style-type: none"> • Practical Exercises • Guided Learning • Powerpoint Assignment handed out
6	6A. IT Infrastructure and Emerging Technologies		Laudon-Chapter 6 GUIDED LEARNING 6-1 What are the problems of managing data resources in a traditional file environment? 6-2 What are the major capabilities of database management systems (DBMS) and why is a relational DBMS so powerful? 6-3 What are the principal tools and technologies for accessing information from databases to improve business performance and decision making? 6-4 Why are information policy, data administration, and data quality assurance essential for managing the firm’s data resources?	<ul style="list-style-type: none"> • Discussions/Debate • Case Study Analysis • Guided Learning
	6B. Assessing Microsoft Office Suite Understanding – Microsoft Word		GUIDED LEARNING GUIDED LEARNING Word Made Simple	<ul style="list-style-type: none"> • Practical Exercises • Guided Learning

Week		Date	Textbook Chapters /Readings	Activities
7	7A. Telecommunications, the Internet, and Wireless Technology Part 1		<p>Laudon-Chapter 7</p> <p>GUIDED LEARNING</p> <p>7-1 What are the principal components of telecommunications networks and key networking technologies?</p> <p>7-2 What are the different types of networks?</p> <p>7-3 How do the Internet and Internet technology work, and how do they support communication and e-business?</p> <p>7-4 What are the principal technologies and standards for wireless networking, communication, and Internet access?</p>	<ul style="list-style-type: none"> • Discussions/Debate • Case Study Analysis • Guided Learning
	7B. Telecommunications, the Internet, and Wireless Technology Part 2 - IOT		<p>ADD'N READING – Access Article – WHAT IS IOT, WHAT YOU NEED TO KNOW - available via Link - https://www.techradar.com/news/what-is-the-iot-everything-you-need-to-know Select and review any 2 articles from list obtained below article; to present in class discussions.</p> <p>GUIDED LEARNING</p> <p>7-5 What is IOT?</p> <p>7-6 Why is everyone talking about it?</p> <p>7-7 Its major applications and issues involved.</p>	<ul style="list-style-type: none"> • Powerpoint Assignment due (15%): Due @14:00 • Discussions/Debate • Video • Guided Learning
8	8A. Securing Information Systems		<p>Laudon-Chapter 8</p> <p>GUIDED LEARNING</p> <p>8-1 Why are information systems vulnerable to destruction, error, and abuse?</p> <p>8-2 What is the business value of security and control?</p> <p>8-3 What are the components of an organizational framework for security and control?</p> <p>8-4 What are the most important tools and technologies for safeguarding information resources?</p>	<ul style="list-style-type: none"> • Discussions/Debate • Case Study Analysis/Video • Guided Learning

Week		Date	Textbook Chapters /Readings	Activities
	8B. Guest Lecture on CYBERSECURITY I		<p>ADD'N READING – Access Article – CYBERSECURITY CHALLENGES FOR 2020 available via Link - https://www.techradar.com/news/cybersecurity-challenges-for-2020 to familiarize yourself with topic and allow engagement with guest professor.</p> <p>GUIDED LEARNING Guest lecture by CYBERSECURITY PROFESSIONAL</p>	<u>Guest Lecture</u>
9	9A. Achieving Operational Excellence and Customer Intimacy: Enterprise Applications		<p>Laudon-Chapter 9</p> <p>GUIDED LEARNING</p> <p>9-1 How do enterprise systems help businesses achieve operational excellence? 9-2 How do supply chain management systems coordinate planning, production, and logistics with suppliers? 9-3 How do customer relationship management systems help firms achieve customer intimacy? 9-4 What are the challenges that enterprise applications pose and how are enterprise applications taking advantage of new technologies?</p>	<ul style="list-style-type: none"> • Discussions/Debate • Case Study Analysis/Video • Guided Learning
	9B. Guest Lecture on CYBERSECURITY II		<p>GUIDED LEARNING Guest lecture by CYBERSECURITY PROFESSIONAL</p>	<u>Guest Lecture</u>
10	10A. E-commerce: Digital Markets, Digital Goods		<p>Laudon-Chapter 10</p> <p>GUIDED LEARNING</p> <p>10-1 What are the unique features of e-commerce, digital markets, and digital goods? 10-2 What are the principal e-commerce business and revenue models? 10-3 How has e-commerce transformed marketing? 10-4 How has e-commerce affected business-to-business transactions? 10-5 What is the role of m-commerce in business, and what are the most important m-commerce applications? 10-6 What issues must be addressed when building an e-commerce presence?</p>	<ul style="list-style-type: none"> • Discussions/Debate • Case Study Analysis/Video • Guided Learning

Week		Date	Textbook Chapters /Readings	Activities
	<i>10B. Guest Lecture on Artificial Intelligence</i>		<p>ADD’N READING – Access Article – BENEFITS & RISKS OF ARTIFICIAL INTELLIGENCE - available via Link https://futureoflife.org/background/benefits-risks-of-artificial-intelligence/?cn-reloaded=1 to familiarize yourself with topic and allow engagement with guest professor.</p> <p>GUIDED LEARNING Guest lecture by AI AND BIG DATA PROFESSIONAL</p>	<u>Guest Lecture</u>
11	<i>11A. Managing Knowledge and Artificial Intelligence</i>		<p>Laudon-Chapter 11</p> <p>GUIDED LEARNING</p> <p>11-1 What is the role of knowledge management systems in business? 11-2 What are artificial intelligence (AI) and machine learning? How do businesses use AI? 11-3 What types of systems are used for enterprise-wide knowledge management and how do they provide value for businesses? 11-4 What are the major types of knowledge work systems, and how do they provide value for firms</p>	<p>✓ 3000 word RESEARCH PAPER due (30%): Due @11:00</p> <ul style="list-style-type: none"> • • Discussions/Debate • Case Study Analysis/Video • Guided Learning
	<i>11B. Guest Lecture on BIG DATA</i>		<p>ADD’N READING - To be assigned by guest professor.</p> <p>GUIDED LEARNING Guest lecture by AI AND BIG DATA PROFESSIONAL</p>	<u>Guest Lecture</u>
12	<i>12A. Enhancing Decision Making</i>		<p>Laudon-Chapter 12</p> <p>GUIDED LEARNING</p> <p>12-1 What are the different types of decisions and how does the decision-making process work? 12-2 How do information systems support the activities of managers and management decision making? 12-3 How do business intelligence and business analytics support decision making? 12-4 How do different decision-making constituencies in an organization use business intelligence and what is the role of information systems in helping people working in a group make decisions more efficiently?</p>	<ul style="list-style-type: none"> • Discussions/Debate • Case Study Analysis/Video • Guided Learning

Week	Date	Textbook Chapters /Readings	Activities
			<u>COURSE REVIEW</u>
13		Catchup	
	FINAL EXAM	<ul style="list-style-type: none"> ▪ Final Exam (50%): <ul style="list-style-type: none"> ○ The final exam is <i>two hours long</i> and will address what has been covered over the semester. ○ There will be a <i>mix of short answer and long answer questions</i>. ○ This assessment addresses learning outcomes 1, 2, 3, & 5 	

Workload calculation for this module:

The workload of this module is estimated as 154 hours per semester, including the 4 hours spend in the classes weekly. Remaining hours are meant to be out of class time spent for preparatory readings, study time for exams and the time spent for doing research and writing up the assignments/final research paper. Below is a more detailed breakdown of the workload for this module.

Time spent in class: 4 hours per week / **52 hours** per semester

Time allocated for course readings and review of class material: 3 hours per week / **36 hours** per semester

Time allocated for preparing final report: **20 hours** per semester

Time allocated for assignments: **20 hours**/per semester

Time allocated preparing/revising for written Final Exam: **26 hours**/per semester

Total time per course: 154 hours per semester.