Syllabus

Module Description
This module is the “on-boarding” module for the MSc Information Systems Management programme (and related programmes). It is designed to firstly introduce students to the online learning environment. Secondly it is designed to allow students to gain a wide-ranging knowledge of the strategic considerations associated with software acquisition and deployment products and service and the management of information systems projects. The module also considers the role of software within organisations from the human, social, knowledge and business perspectives. In the context of software acquisition the module examines a range processes from off-the-shelf acquisition to bespoke software development including various software lifecycles. Once acquired software needs to be maintained and evolved, and thus the module also examines theories and methods for achieving this.

Module Aims
- To provide students with a comprehensive understanding of the key concepts associated with the computing global environment and the position of these concepts within the context of the IT industry.
- To equip students with a wide-ranging comprehension of the current trends of enterprise oriented software and systems enterprise development, data management and big data analytics, cyber security and risk management within the global context.
- To allow students to gain a comprehensive insight into current and emerging trends in the domain of IT in a manner that encourages the sharing of globally based perspectives and experiences.
- To highlight the integrative, global characteristics, of the IT discipline, the need for holistic approaches while recognising the relevance and impact of unique regional contexts.

Module Learning Outcomes
By the end of the module, the student will have:
- An ability to participate in, and contribute to, an academic community through online discussion, whilst applying writing style conventions and academic integrity to academic writing.
- An ability to analyse and evaluate scholarly resources and writing
- Demonstrated a critical understanding of the key concepts associated with computing and information technology within the global context.
- Demonstrated a comprehensive understanding of current topics in Cyber Security including methods used to secure information systems.
- Demonstrated a critical understanding of the nature and benefits of Software Engineering processes.
• Demonstrated a general but critical understanding of the use of databases in the context of data warehousing and big data analytics.
• An ability to critically evaluate different approaches to risk management, in the context of cyber security, within the global context.

Learning Resources
Module Text

The latest information on the book title, edition and availability is found at: http://www.uol.ohecampus.com/booklist

Other Readings
Lists of additional books, articles and website links will be provided during the module.

Required Software

Syllabus by Week

To view the Module Calendar:

Module Calendar

**Week 1: Participating in the global classroom / Part 1 of the history of computing**

Learning Objectives
• Post to an online discussion board
• Respond to colleagues’ posts in a respectful, productive manner
• Identify technical and cultural differences between themselves and their colleagues regarding computing
• Analyse potential impacts of technical and cultural issues in implementing technology in a workplace

Discussion: Your history of computing
• Initial post due **Day 4 (Sunday)**
• This is a formative discussion which does not count towards your final module grade. Your instructor will give feedback to help you improve in subsequent weeks.

Task: Registering for your University of Liverpool online library account
Due Day 7 (Wednesday)
This is a formative assignment which does not count towards your final module grade. Your instructor will give feedback to help you improve in subsequent weeks.

Week 2: Principles of academic integrity / Part 2 of the history of computing
Learning Objectives
- Recognise their own cultural attitudes about intellectual property and academic integrity
- Analyse the ways in which their attitudes are or are not consistent with the University of Liverpool Academic Integrity Policy and other relevant policies and guidelines
- Devise a strategy for ensuring personal academic integrity through the use of citation and reference, Turnitin and other tools

Discussion: Academic integrity in a cultural context
- Initial post due Day 4 (Sunday)

Assignment: Outline of a logical argument
- Due Day 7 (Wednesday)

Week 3: Exploring Algorithms and Software Engineering
Learning Objectives
- Construct, trace and Interpret algorithms
- Represent algorithms using pseudo-code
- Demonstrate the ability to apply algorithmic concepts by creating a program in Scratch

Discussion: Posted by instructor
- Initial post due Day 4 (Sunday)

Assignment: IT failure
- Due Day 7 (Wednesday)

Week 4: Software and Software Development
Learning Objectives
- Analyse multiple ways to implement an algorithm
- Demonstrate the ability to program simple algorithms in Scratch
- Analyse the components and methodologies of developing software
- Compare and contrast programming paradigms

Discussion: Posted by instructor
- Initial post due Day 4 (Sunday)

Assignment: Module Project Part 1
- Due Day 7 (Wednesday)
Week 5: Data and Data Management

Learning Objectives
- Analyse fundamental concepts and elements of data structures
- Recommend data structures appropriate to specific situations
- Infer the information from databases, given specific data characteristics and data access conditions
- Evaluate the appropriate use of different types of database solutions

Discussion: Posted by instructor
- Initial post due Day 4 (Sunday)

Assignment: IT governance and portfolio management
- Due Day 7 (Wednesday)

Week 6: Enterprise Networks and Systems

Learning Objectives
- Analyse an issue related to computer networks
- Evaluate the potential for using a diversity of approaches for developing and managing Enterprise-Wide systems
- Identify the potential security challenges associated with global deployment of Enterprise-Wide technologies

Discussion: Posted by instructor
- Initial post due Day 4 (Sunday)

Assignment: Enterprise Networks and Systems
- Due Day 7 (Wednesday)

Week 7: IT Risk Management in a Diverse IT Environment

Learning Objectives
- Identify, with examples, the key components associated with IT Security Risk
- Critically evaluate the approaches typically used when developing an IT Security Management
- Analyse the role of IT Security policies and procedures to mitigate potential problems associated with deploying and supporting a diverse set of technologies in Enterprise-wide systems

Discussion: Posted by instructor
- Initial post due Day 4 (Sunday)

Assignment: Module Project Part 2
- Due Day 7 (Wednesday)

Week 8: Cyber Security and IT Security Risk Management
Learning Objectives

- Identify, with examples, the types of threats associated specifically with Cyber Security and their potential impact on Enterprise-Wide systems
- Critically assess the merits of implementing a specific set of policies and procedures to mitigate Cyber Security threats
- Evaluate the components typically associated with Cyber Security, when incorporated within an organisation’s IT Security Risk Management Strategy

Discussion: Posted by instructor

- Initial post due **Day 4 (Sunday)**

Assignment: Managing change

- Due **Day 7 (Wednesday)**

**Week 9: Privacy, Regulatory Compliance and Enterprise Wide Technologies**

Learning Objectives

- Evaluate the applicability and usefulness of the standards associated with the technologies typically used within a Globally diverse system environment
- Identify the challenges experienced by IT Professionals and their organisations when developing and implementing systems in Globally diverse, technological environments
- Analyse the impact of required compliance to international regulations when working within a Global IT organisation
- Critically assess one's own professional development, through the acquisition of the knowledge and skills acquired during this module

Discussion: Two discussions posted by instructor

- Initial posts due **Day 4 (Sunday)**

Assignment: Module Project Part 3

- Due **Day 7 (Wednesday)**

**Week 10: IT Trends and Current Research in IT**

Learning Objectives

- Analyse current and potential future trends in computing technology
- Analyse ambiguities in intelligence and developing artificial intelligence systems
- Evaluate the usages of emerging computing technologies

Discussion: Posted by instructor

- Initial post due **Day 4 (Sunday)**

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**Overview of module work**
Discussions

For all Discussions (unless stated otherwise):

- Your initial post should be 350–500 words long (not including the list of works cited). Cite and reference all sources using the Harvard Liverpool Referencing System.

- **For one-Week Discussions:**
  - By **Sunday (Day 4)**, post the text of your document to the Discussion Board for this Week, and upload the document using the Turnitin submission link for this Discussion.
  - By **Wednesday (Day 7)**, make 3–5 substantial follow-on responses to your colleagues for each Discussion Question. Your total Discussion Board participation (follow-on responses) must occur on at least **3 individual days** during each Week. Follow-on responses should be significant contributions to the Discussion. Do not submit your follow-on responses to Turnitin.

- **For two-Week Discussions:**
  - By **Wednesday (Day 7 of the two-week period)**, post the text of your document to the Extended Discussion Board for this two-Week period and upload the document using the Turnitin submission link for this Discussion.
  - By the following **Wednesday (Day 14 of the two-week period)**, make 3–5 substantial follow-on responses for each discussion question to your colleagues. These can include responses to your colleagues’ initial posts, as well as responses to colleagues who responded to your own initial post. Your total Discussion Board participation must occur on at least **5 individual days**, including your initial post. Follow-on responses should be significant contributions to the Discussion. Do not submit your follow-on responses to Turnitin.

- In general, online discussion is best when you:
  - Ask insightful questions
  - Extend the discussion into new but relevant areas
  - Model or promote critical reflection

- Support your arguments with citations and references from the assigned Learning Resources and other literature, using Harvard Liverpool Referencing Style.

- Ensure that you spread your discussion posts across at least 3 separate days of each week. This will help maximise the value of your discussion with colleagues and serve to meet the learning objectives for each activity.

Assignments

You must submit your answer to the Assignment by the end of **Day 7 (Wednesday)**. A typical answer will have between 750 and 1,000 words (not including the list of works cited) unless otherwise stated in the assignment information. Cite and reference all sources using the Harvard Liverpool Referencing System Assignment. Answers are submitted to the specified Turnitin or Assignments link provided and are not to be posted in the Module Discussion Board.

For both Discussions and Assignments, satisfactory answers will demonstrate clear understanding of the topics and issues related to the initial Discussion Question or Assignment. Excellent answers will raise appropriate critical questions, in addition to providing in depth explanations of the topic.
Good answers will explain the reasons with some level of depth. Answers that demonstrate only a partial grasp of what is important within the context of the topic will be considered less satisfactory, possibly resulting in a lower grade.

Assessment

The table below outlines the mandatory contribution in each category and the weight that applies to each component.

Module Grading Grid

<table>
<thead>
<tr>
<th>Component</th>
<th>Weeks</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Discussions: Initial Post and Responses</td>
<td>X</td>
<td>X(2)</td>
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<tr>
<td>Individual Assignments</td>
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</tr>
<tr>
<td>Assessment Points</td>
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</tr>
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Key:

X = submission required, graded
(X) = submission required, not graded (feedback provided)

For general information on assessment and grading, please consult the Student Handbook section pertaining to grading at http://success.liverpool-online.com/studenthandbook/submissionassessment/index

Note that some activities and assignments are graded, while others are submitted for feedback only. This is intended to give you the opportunity to learn from feedback and improve your work, further developing your knowledge and skills and helping you get the most from the module. Please take advantage of this opportunity to learn from your Instructor’s feedback—give the assignment your full effort and ask for clarification on any feedback you do not understand.

Rubrics

At any time, you can check your grades by clicking the My Grades icon within the Tools area. Grades are based on specific criteria. Open the link below to read the criteria for the assessments.

Document

Criteria for Assessment Rubrics (PDF)
General Information

Learning in the University of Liverpool online programmes

The University of Liverpool online programmes employ a unique learning model that is designed to provide a flexible, collaborative and meaningful learning experience. Your learning in this module is through self-study using the resources provided, library research and online interactions with other students and your Instructor. The wide variety of learning activities and assignments help you develop your understanding of theoretical concepts and practice skills required for success in your field.

Each week consists of Learning Objectives, Learning Resources and learning activities, including collaboration activities and various types of assignments. The learning activities are designed to enable you to synthesise, evaluate and apply the principles covered in this module to your own field of interest.

Discussions

Discussions are collaborative activities that contain both individual writing and group discussion in the discussion forum.

One of the strengths of an online learning programme such as this is the high level of student interaction, whereby students are encouraged to share their perspectives on module concepts, critical assessment of readings and resources, and their own experiences for the benefit of the others.

Discussions allow you to learn from and with your peers and your Instructor. Your contribution to the online learning community, primarily through Discussions, represents a significant portion of your final module grade.

Discussion Cycle

Given the asynchronous nature of this course, we use a common structure to effectively collaborate. However, be aware that the paramount goal is to have an organic content-driven discussion with your peers. As far as engaging your peers go, in general, more is better! You should use the forum in any way that enhances your learning: share analyses, external resources, personal experiences, notes on the module content, etc.

Your instructor will provide you with feedback on the way you have interacted with your peers.

Participating in Discussions

Learning in a collaborative environment is most effective when all participants provide creative, good-quality, well-thought-out and well-researched contributions rather than brief, superficial responses or those simply saying, ‘I agree’. You should therefore focus on offering new ideas in
response to other students’ comments, extending the discussion into new areas and providing constructive feedback to colleagues.

Some ground rules apply for participating in Discussions include the following:

- Please only participate in the Discussion area during the time period in which it appears. Please do not return to Discussion area in a later week unless you are instructed to do so.
- Review the applicable rubrics for information on how your contributions to the Discussion areas will be graded in this module.

Communicating with your Instructor

It is your responsibility to visit the classroom regularly to read messages, announcements and postings made by your Instructor and peers. You can communicate directly with your Instructor through the internal messaging system in the classroom. You should contact your Instructor immediately any time you are not sure of module requirements or expectations or any time you have questions about resources, activities and assignments.