

University of Computer Studies, Yangon
2019-2020 Academic Year
Faculty of Information Science

Subject Code	CS-404	Subject Name	Information Assurance and Security (50%)
Semester	Second	Course Coordinator	Dr. Nyein Myint Myint Aung
Credit point	1.5		
Hours	20 hours		
Weeks	16 weeks		
Period	48 periods (1 period with 75 minutes) /1 periods per week		

Course Description

The course aims to motivate fourth year students the topic of information security awareness. At the outset, the professional environment of information security and brief history of security are introduced. After this, the basic model of information security consisting of assets, vulnerabilities, threats, and controls are explained. The rest of the course is devoted to characterizing assets, vulnerabilities and threats and responding to them using security controls. At the end of the course, students will have an awareness of how information security concerns have evolved in our society and how they can use contemporary frameworks to respond to these concerns in a professional environment. The course comes with a full set of end-of-chapter exercises. There are four kinds of exercises at the end of every chapter:

1. Traditional end of chapter questions are designed to improve student understanding and recall of common topics in information security.
2. An example case at the end of each chapter allows students to apply the knowledge in the chapter to business contexts.
3. A critical thinking exercise introduces students to analogous situations and relates the ideas from the chapter to this situation.
4. Finally each chapter has a detailed hands-on activity using a customized distribution of the CentOS Linux OS to be installed as a virtual machine using virtual box.

Course Outcomes

Students who complete the course will be able to

- Understand how information security and assurance is important and impact of organizations, and the importance of system administration for information security.
- Provide the element of basic security model, relationships between the elements of the basic

information security model and common classification of information security controls.

- Get clear understanding of the different aspects of threats including: threat models, and vulnerabilities and their relevance to threats.
- Describe the important of assets in organizations and to examine how these assets can be identified and classified based on their alignment to the organization's mission.
- Be aware of asset management issues including life cycle and ownership.

Prerequisites by Topic

None

Major Topic Covered in the Course

- Introduction
- The Basic Information Security Model
- Asset Identification and Characterization
- Threats and Vulnerabilities

Textbook

- INFORMATION SECURITY and IT RISK MANAGEMENT, 1st Edition, Wiley. Manish Agrawal, Alex Campoe and Eric Pierce, 2014

Reference Book

- INFORMATION SECURITY: The Complete Reference, 2nd Edition, McGraw Hill, Mark Rhodes-Ousley, 2013
- Network Security : A Beginner's Guide, 3rd Edition, Eric Maiwald, ISBN:9780071785715, McGraw-Hill, 2013

Learning Assessment

Paper Exam : 30%

Tutorial Test : 10%

Assignment : 5%

Class Participation : 5%

Course Policy

- Individual deliverables are to be submitted individually and group work is collaborative.
- All exams and assignments are to be completed by the student alone with no help from any other person.
- Students are allowed to discuss about homework and project problems with others.
- Students are not allowed to copy the solutions from another colleague.
- If so, all students (with same answers) must be deducted 1% of their marks(assignment).
- If you hand in a late assignment, you must identify
 - (1) how late this assignment is and
 - (2) how many total slip days you have left.
- After you have used up your slip time, any assignment handed in late will be marked off 0.5% per day. That is, after 5 days, the mark must be zero.

University of Computer Studies, Yangon

B.C.Sc.(Fourth Year)

CS-404 - Information Security and Assurance (50%)

Textbook - Information Security and IT Risk Management
by ManishAgrawal, Alex Campoe, Eric Pierce

Periods - 16 periods

No.	Chapter	Page	Period	Detailed Lecture
1.	Chapter 1 – Introduction	5-21	2	
	Brief History Definition of Information Security Chapter Review Questions		1	Explain Details
	Hands-On Activity		1	Lab
	Critical Thinking Exercise			Assignment Oriented
2.	Chapter 4 - The Basic Information Security Model	82-103	5	
	Components of the Basic Information Security Model		2	Explain Details
	Common Vulnerabilities, Threats, and Controls		1	Definitions
	Chapter Review Questions		1	
	Hands-On Activity		1	Lab
	Example Case - ILOVEYOU virus Critical Thinking Exercise			Assignment Oriented
3.	Chapter 5 - Asset Identification and Characterization	104-133	4	
	Assets Overview Assets Types Assets Characterizations		2	Definitions

	IT Assets Life Cycle and Asset Identification Asset Ownership and Operational Responsibilities		1	
	Chapter Review Questions Hands-On Activity		1	
	Example Case – Stuxnet Critical Thinking Exercise			Assignment Oriented
4.	Chapter 6 - Threats and Vulnerabilities	135-174	5	
	Introduction Threat Models Thread Agent		2	Definitions
	Threat Action Vulnerabilities		1	Explain Details
	Chapter Review Questions		1	
	Hands-On Activity		1	Lab
	Example Case – Gozi Critical Thinking Exercise			Assignment Oriented

University of Computer Studies, Yangon
2019-2020 Academic Year
Faculty of Information Science

Subject Code	CS-404	Subject Name	Management Information System (50%)
Semester	Second	Course Coordinator	Daw Khaing
Credit point	1.5		
Hours	20 hours		
Weeks	16 weeks		
Period	48 periods (1 period with 75 minutes) /1 periods per week		

Course Description

The main purpose of this course is to describe the importance role of management information system in business today and present the process stage how to organize to become the management information system. This course also provides the ethics and discipline concerning with the information system.

Course Objective

- To understand the role of information system in business today
- To understand the different kind of approaches to information system
- To understand how information system impact organizations and business firms
- To understand the ethical and social issues related to information systems.

Learning Outcomes

The students who complete the course will be able to

- Get knowledge how are information systems transforming business and their relationship to globalization
- Demonstrate the feature of organization and the impact of information system on organization
- Identify the opportunities for strategic information system on organization
- Explain the relation of ethical, social and political issues and information system

Prerequisite for the Course

None

Major Topic covered in the course

- Information Systems in Global Business Today
- Information Systems, Organizations and Strategy
- Ethical and Social Issues in Information System

Textbook

Kenneth C.Laudon, Jane P.Laudon “Management Information System”, 12th Edition

Learning Assessment

Final Exam	:	30%
Tutorial Test	:	10%
Quiz	:	10%
Assignment	:	5%
Class	:	5%
Participation	:	5%

Course Policies

- Students will need to prepare for the class sessions ahead of time by reading the materials provided, and working on questions and problems that are to be discussed in class – either individually or as part of a team.
- Class sessions will be interactive, though guided by the instructor with the help of a number of questions, as well as small cases and problems.
- Individual deliverables are to be submitted individually and group work is collaborative.
- Make-up exams, tutorial and assignments are not available.

University of Computer Studies, Yangon

B.C.Sc.(Fourth Year)

(Second Semester)

CS-404 : Management Information System (50%)

Text Book : Management Information System

Managing the digital firm

Period : 16 periods

No.	Chapter	Pages	Period	Remark
	Chapter 1. Information system in Global Business Today			
1	1.1 The Role of Information Systems in Business Today	37-44	3	Detail
2	1.2 Perspectives on Information Systems	47-58	3	Detail
3	1.3 Contemporary Approaches to Information Systems	60-61	1	Detail
4	1.4 Hands on MIS projects	63-64	1	Detail
5	Case Study: The National Bank of Kuwait	68	1	Detail
6	Chapter End Discussion	1		
	Chapter 3. Information Systems, Organizations, and Strategy			
7	3.1. Organizations and Information Systems	111-114	2	Detail
8	3.2 How Information Systems Impact Organizations and Business Firms	119-124	2	Detail
9	3.3. Using Information Systems to Achieve Competitive Advantage	124-129	2	Detail
10	3.4. Using Systems for Competitive Advantages: Management Issues Sustaining Competitive Advantage	141-142	1	Detail
11	3.5 Hands on MIS projects	143	1	Detail
13	Case Study: Soundbuzz's Music Strategy for Asia-Pacific	148	1	
14	Chapter End Discussion		1	
	Chapter 4. Ethical and Social Issues in Information Systems			
15	4.1 Understanding Ethical and Social Issues Related to Systems	153-156	2	Detail
16	4.2 Ethics in an Information Society	159-161	2	Detail
17	4.3 The Moral Dimensions of Information Systems	161-173	3	Detail
18	4.4 Hands on MIS projects Case Study: When Radiation Therapy Kills	183	1	
19	Chapter End Discussion	1		