

Tutorial Letter 101/3/2020

Advanced Systems Development (Information Systems) INF3705

Semesters 1 and 2

Name of Department

IMPORTANT INFORMATION

Please register on myUnisa, activate your myLife email address and make sure that you have regular access to the myUnisa module website, INF3705-2020-S1/S2, as well as your group website.

Note: This is a fully online module and therefore it is only available on myUnisa.

BARCODE



CONTENTS

	<i>Page</i>
1 INTRODUCTION	3
1.1 Getting started	3
2 OVERVIEW OF INF3705... ..	4
2.1 Purpose	4
2.2 Outcomes	4
3 LECTURER(S) AND CONTACT DETAILS.....	4
3.1 Lecturer(s)	4
3.2 Department.....	4
3.3 University	5
4 RESOURCES	5
4.1 Joining myUnisa	5
4.2 Recommended books	5
4.3 Electronic reserves (e-reserves)	5
4.4 Library services and resources	5
5 STUDENT SUPPORT SERVICES.....	6
6 HOW TO STUDY ONLINE.....	6
6.1 What does it mean to study fully online?	6
6.2 myUnisa tools	6
7 ASSESSMENT	7
7.1 Assessment plan	7
7.2 Year mark and final examination/other options	8
8 CONCLUSION.....	8

1 INTRODUCTION

Dear Student

As part of this tutorial letter, we wish to inform you that Unisa has implemented a transformation charter based on five pillars and eight dimensions. In response to this charter, we have also placed curriculum transformation high on the agenda. For your information, curriculum transformation includes the following pillars: student-centred scholarship, the pedagogical renewal of teaching and assessment practices, the scholarship of teaching and learning, and the infusion of African epistemologies and philosophies. These pillars and their principles will be integrated at both the programme and module levels, as a phased-in approach. You will notice the implementation in your modules and we encourage you to fully embrace these changes during your studies at Unisa.

Welcome to Advanced Systems Development (INF3705). The purpose of this module is to provide you with an advanced level of knowledge, specific skills and applied competencies in systems analysis and design. These competencies will equip you to use concepts to analyse and design high –quality systems in organisations. This module forms part of the BCom (Information Systems or Computer Science) degree and you are expected to have a computer and internet connectivity in order to pass this module.

Don't hesitate to contact your e-tutor (on myUnisa or by e-mail if you are experiencing problems with the content of this tutorial letter or any aspect of the module. I sincerely hope that you find this module, as well as your online learning experience interesting and rewarding and trust that you will complete the module successfully.

Because this is a fully online module, you will need to use myUnisa to study and complete the learning activities. Visit the website for [module code] on myUnisa frequently. The website for your module is Advanced System development in Information Systems INF3705-2020.

1.1 Getting started ...

Given the nature of this module, you can read about it and find your study material online. Go to the website at <https://my.unisa.ac.za> and log in using your student number and password. You will see INF3705-20-S1 or INF3705-20-S2 in the row of modules displayed in the orange blocks at the top of the web page. Select the **More** tab if you cannot find the module you require in the blocks displayed. Then click on the module you wish to open.

The Prescribed text book for this module is:

Somerville. 2016. Software engineering. 10th edition/GLOBAL EDITION:

We wish you every success in your studies!

2 OVERVIEW OF INF3705

2.1 Purpose

Students who have completed this module successfully will be able to apply an advanced level of knowledge, specific skills and applied competencies in system analysis and design. These competencies will help equip the qualifying student to use concepts when analysing the designing high quality systems in organisations and contributing to development in the field of Information Systems or computer Science in southern Africa.

2.2 Outcomes

For this module, you will have to master several outcomes:

- **Specific outcome 1:** To demonstrate an understanding of advanced system analysis and design concept with reference to the changing nature of software.
- **Specific outcome 2:** To describe the process that provides a framework for Advanced systems analysis and design practices.
- **Specific outcome 3:** Do a critical analysis of the principles, concepts and methods comprising of advanced system analysis and design activities.
- **Specific outcome 4:** Apply the concept of dependability and security in developing socio-technical systems.

3 LECTURER(S) AND CONTACT DETAILS

3.1 Lecturer(s)

The primary lecturer for this module is Mr Elias Tabane
Department: Information Systems
Telephone: 011 471 2620
Email: Tabane@unisa.ac.za

3.2 Department

You can contact the Department of Information systems as follows:

Telephone: 011 670 9200

Email: study@unisa.ac.za

3.3 University

To contact the university, follow the instructions in the brochure *Study@Unisa*. Remember to have your student number available whenever you contact Unisa.

When you contact a lecturer, please include your student number to enable him/her to help you more effectively.

4 RESOURCES

4.1 Joining myUnisa

The myUnisa learning management system is the university's online campus which will help you communicate with your lecturers, fellow students and Unisa's administrative departments.

To access the myUnisa website directly, go to <https://my.unisa.ac.za>. Click on the **Claim UNISA Login** on the top of the screen on the myUnisa website. You will then be prompted to enter your student number in order to claim your initial myUnisa details, as well as your myLife email login details.

For more information on myUnisa, consult the brochure *Study@Unisa*, which you received with your study material: www.unisa.ac.za/brochures/studies

4.2 Recommended books

No recommended books for this module, but additional study material will be provided where necessary.

Recommended books can be requested online, via the library catalogue.

4.3 Electronic reserves (e-reserves)

There are no e-reserves for this module.

E-reserves can be downloaded from the library catalogue. More information is available at:

<http://libguides.unisa.ac.za/request/request>

4.4 Library services and resources information

The Unisa Library offers a range of information services and resources:

- for brief information go to: <https://www.unisa.ac.za/library/libatglance>
- for more detailed Library information, go to <http://www.unisa.ac.za/sites/corporate/default/Library>
- for research support and services (e.g. Personal Librarians and literature search services), go to <http://www.unisa.ac.za/sites/corporate/default/Library/Library-services/Research-support>

The Library has created numerous Library guides: <http://libguides.unisa.ac.za>

Recommended guides:

- request and find library material/download recommended material:
<http://libguides.unisa.ac.za/request/request>
- postgraduate information services:
<http://libguides.unisa.ac.za/request/postgrad>
- finding and using library resources and tools:
http://libguides.unisa.ac.za/Research_skills
- Frequently asked questions about the Library:
<http://libguides.unisa.ac.za/ask>
- Services to students living with disabilities:
<http://libguides.unisa.ac.za/disability>

Important contact information:

- <https://libguides.unisa.ac.za/ask> - Ask a Librarian
- Lib-help@unisa.ac.za - technical problems accessing library online services
- Library-enquiries@unisa.ac.za - general library related queries
- Library-fines@unisa.ac.za - for queries related to library fines and payments

5 STUDENT SUPPORT SERVICES

The *Study@Unisa* brochure is available on myUnisa: www.unisa.ac.za/brochures/studies

This brochure has all the tips and information you need to succeed at distance learning and, specifically, at Unisa.

6 HOW TO STUDY ONLINE

6.1 What does it mean to study fully online?

Studying fully online modules differs completely from studying other modules at Unisa.

- ***All your study material and learning activities for online modules are designed to be delivered online via myUnisa.***
- ***All your assignments must be submitted online.*** This means that you will complete all your activities and submit all your assignments via myUnisa. In other words, you may **NOT** post your assignments to Unisa using the South African Post Office.
- ***All communication between you and the university happens online.*** Your lecturers will communicate with you via email and SMS, and by using the **Announcements**, **Discussion Forums** and **Questions and Answers** tools. You can also use all of these ways to ask questions and contact your lecturers.

6.2 myUnisa tools

We will mainly be using the **Lessons tool**, which provides the content of, and assessments for, your module. At times you will be directed to join discussions with your fellow students, and to complete activities and assessments before continuing with the module.

It is crucial that you log in to myUnisa regularly. We recommend that you do so at least once a week, to do the following:

- **Check for new announcements.** You can also set your myLife email account so that you receive announcement emails on your cell phone.
- **Complete the Discussion Forum activities.** When you complete the activities for each learning unit, we want you to share your answers with the other students in your group. You can read the instructions and even prepare your answers offline, but you will need to go online to post your messages. To this end we provide a **Social Cafe** where you can socialise with other students taking this module.
- **Complete other online activities.** For certain learning unit activities, you may need to post something on the **Blog tool**, take a quiz or complete a survey under the **Self-Assessment tool**. Do not skip these activities, because they will help you complete the assignments and activities for the module.

We hope that by giving you extra ways of studying the material and practising all of the activities, you will succeed in the online module. To get the most out of the online module you **MUST** go online regularly, to complete the activities and assignments on time.

7 ASSESSMENT

7.1 Assessment plan

The following is a breakdown of the formal assessment activities as they become due during the semester:

There are two assignment for this module. The two assignment carry a 50% weight each towards the semester mark. We do advise you to complete both assignments to cover the content matter before the examinations.

7.1.1 Syllabus table of content

Chapter 1: Introduction

Chapter 2: Software processes

Chapter 3: Agile software development

Chapter 4: Requirements engineering

Chapter 5 System modelling

Chapter 6 Architecture design

Chapter 7 Design and implementation

Chapter 8 Software testing

Chapter 9 Software Evolution

Chapter 10 Dependable Systems

Chapter 11 Reliability engineering

Chapter 12 Safety Engineering

Chapter 15 Software Reuse

Chapter 18 Service-oriented Software engineering

Chapter 19 Systems engineering

Assignment 1 cover chapter 1-7 and Assignment 2 cover chapter 8-19

7.1.2 Unique assignment numbers

Assignment number	Unique assignment number Semester 1	Unique assignment number Semester 2
01	662155	578311
02	612793	690567

7.1.3 Due dates for assignments

Assignment number	Due date Semester 1	Due date Semester 2	Purpose
01	04 March	19 August	In-depth understanding of the module
02	04 April	16 September	In-depth understanding of the module

Assignment 01 and assignment 02 should be uploaded on myUnisa website. Both assignment 01 and 02 are used to determine your year mark.

*Because this is an online module, the assignments are not provided in this tutorial letter. Instead, they will be posted online as they become due, and you will see them when you go online.

7.2 Year mark and final examination/other options

Your year mark for this module is calculated as follows:

For INF3705 you will receive a possible mark out of 20, which will count towards your final mark for the year. **For this module, assignment 01 and 02 will be used to calculate your mark.**

8 CONCLUSION

Do not hesitate to contact us via email if you are experiencing problems with the content of this tutorial letter or with any academic aspect of the module.

We wish you a fascinating and satisfying journey through the learning material and trust that you will complete the module successfully.

Enjoy the journey!

Mr Elias Tabane – lecturer for INF3705

DEPARTMENT OF INFORMATION SYSTEMS

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