

Tutorial letter 102/3/2015

Object-Oriented Analysis ICT2622

Semesters 1 & 2

School of Computing

IMPORTANT INFORMATION:

This tutorial letter contains important information
about your module.

BAR CODE



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1 INTRODUCTION

Dear Student

We extend a warm welcome to you and hope that you will find this module interesting and rewarding. We shall do our best to make your study of this module successful. If you wish to succeed, we recommend that you start studying early in the year and resolve to do the assignment(s) properly.

You will receive a number of tutorial letters during the year. A tutorial letter is our way of communicating with you about teaching, learning and assessment.

This tutorial letter contains important information about the scheme of work, resources and assignments for this module. We urge you to read it carefully and to keep it on hand when working through the study material, preparing the assignment(s), preparing for the examination and addressing questions to your lecturers.

Please read Tutorial letter 301 in combination with Tutorial letter 101 as it gives you an idea of generally important information when studying at a distance and within a particular college.

In Tutorial letter 101 you will find the assignments and assessment criteria as well as instructions for preparing and submitting the assignments. This tutorial letter also provides all the information you need about the prescribed study material and other resources and how to obtain them. Please study this information carefully and make sure that you obtain the prescribed material as soon as possible.

We have also included certain general and administrative information about this module. Please study this section in the tutorial letter carefully.

We recommend that you read all the tutorial letters you receive during the semester immediately and carefully, as they always contain important and, sometimes, urgent information.

This tutorial letter contains particulars of the prescribed book, the syllabus, your study programme and the assignments. Please make a note of the preliminary examination dates and arrange for leave with your employer in good time if you are working full time. We hope that you will enjoy this module and wish you all the best!

1.1 Tutorial matter

Some of this tutorial matter may not be available when you register. Tutorial matter that is not available when you register will be available on *myUNISA*.

PLEASE NOTE: *myUNISA* is the primary medium of the lecturer-student interaction. All tutorial letters can be found on *myUNISA*.

All future tutorial letters must be downloaded from *myUNISA*.

2 PURPOSE OF AND OUTCOMES FOR THE MODULE

2.1 Purpose

The main purpose of this module is to enable intermediate level systems analysts competences to analyse information systems according to the object-oriented approach using the tools, techniques and methodologies of systems development.

2.2 Outcomes

- Analyse client needs and interpret and document them according to the system's functional requirements by applying the object-oriented approach as part of the systems analysis phase of the systems development
- Distinguish between traditional approaches and the object-oriented approach
- Apply object-oriented tools, techniques and methodologies
- Display analytical competencies
- Develop information from the analysis phase into design models
- Design a database schema in relation to a class diagram
- Design system inputs and output
- Clearly articulate assumptions when faced with ambiguity
- Display to analyse environment and situation then apply best possible solution

3 LECTURER(S) AND CONTACT DETAILS

3.1 Lecturer(s)

Your lecturers are fully prepared to communicate with you and resolve any content-related issues that you may have. Generally, most students experience the same type of problems. In this tutorial letter we address some of the most common student enquiries, so please take the time to read through this tutorial letter as some of the questions that you may have might be answered here. This is a comprehensive first tutorial letter to assist you in the best possible way and to ensure that you have effective interactions with the lecturers of this module and Unisa in general. Some of the frustrations that our students experience include the following:

- Problems that are still unresolved after an effort to contact Unisa.
- The fact that it is necessary to contact Unisa more than once to solve a problem.
- The fact that students are passed from one person to another when they call.

In this module we will try to reduce these frustrations to a minimum and help you to spend time effectively on your studies. To make this possible you need to understand the general regulations and workflow within Unisa and how this affects us all. Certain actions from your side can slow down the Unisa wheel, making it difficult for lecturers to provide you with the standard of service that they would like to provide.

To begin with, we will provide a few statistics to give you an idea of the size of Unisa and its workflow, and that unrestricted action by masses of students can slow down the workflow processes considerably. Currently, Unisa is one of the largest universities in the world, with more than 290 000 registered students – and the numbers keep on growing every year. Many of these students are enrolled in the School of Computing. Providing an effective service to such a large number of students is not an easy task.

If, for instance, only 10% of our students phone the department to request an extension for an assignment, this would result in 2 900 phone calls. If the average time of each call is three minutes, then just listening to students asking for an extension would take at least 100 hours. Remember that each module has several assignments, which causes a snowball effect just for an extension! As you can see, this kind of issue can rapidly make even a large department very ineffective indeed.

When you read through this tutorial letter it may initially appear to be a brochure filled with strict rules of “Thou shalt ...” and “Thou shalt not ...” However, what we are trying to do is to address general queries that you may have, as well as matters that create unnecessary administrative burdens. We are convinced that many of the problems would not even exist if all the role-players understood the rules of the game.

The information about the lecturers responsible for this module will be announced on *myUNISA* and is also available in *Tutorial letter 301/2015*.

All queries that are not of a purely administrative nature but are about the **content of this module** should be directed to your lecturers. Please have your study material with you when you contact them.

Letters should be sent to:

The Module Leader (ICT 2622)
School of Computing
PO Box 392
UNISA
0003

PLEASE NOTE: Letters to lecturers should not be enclosed with or inserted in assignments.

3.2 Department

We are the School of Computing based in Florida Science campus.

3.3 University

If you need to contact the university about matters not related to the content of this module, please consult the publication entitled **my Studies @ Unisa**, which you should have received with your study material. This booklet contains information on how to contact the university (e.g. to whom you can write with different queries, important telephone and fax numbers, addresses and details of the times certain facilities are open).

PLEASE NOTE: Students who phone the Unisa Contact Centre using the old UCC telephone numbers may, from now on, hear a pre-recorded message redirecting them to the relevant email address/website

4 MODULE-RELATED RESOURCES

4.1 Prescribed books

The prescribed textbook for this module is:

Satzinger, JW, Jackson, RB & Burd SD. 2014. *Introduction to Systems analysis and design: An Agile, Iterative Approach*. 6th edition. USA: Thomson Course Technology (**ISBN: 978-1-4737-0474-9**).

NB: *Textbook is the primary source of learning material. There is **no** study guide for this course. We do not give support on the older editions of the prescribed book. You are therefore advised to use the prescribed edition. For purchasing books, consult the list of official bookstores in the booklet, **my Studies @ Unisa***

5 STUDENT SUPPORT SERVICES FOR THE MODULE

Important information in this regard appears in your **my Studies @ Unisa** brochure.

5.1 myUNISA

For the purpose of this module, you should have regular access to a computer with an Internet connection. This will enable you to access resources and information at the university quickly. The *myUNISA* learning management system is Unisa's online campus which will help you to communicate with your lecturers, with other students and with the administrative departments of Unisa – all through the computer and the internet.

You may send emails to your lecturer via the module e-mail address provided on *myUNISA* in the course contact link.

To go to the *myUNISA* website, start at the main Unisa website, <http://www.unisa.ac.za>, and then click on the “Login to *myUNISA*” link on the right-hand side of the screen. This should take you to the *myUNISA* website. You can also go there directly by typing in <http://my.unisa.ac.za>.

You will be able to download the tutorial matter from *myUNISA*.

You are welcome to use the discussion forum for each module on *myUNISA*. This discussion forum serves as a platform where students can communicate with each other and may only be used for academic issues. The lecturer(s) will not actively participate in the discussion forum. You should thus not post urgent questions for the lecturer's attention here. Rather use the email option if you have an urgent academic issue to discuss.

Please consult the publication **my Studies @ Unisa**, which you will have received with your study material, for more information on *myUNISA*.

5.2 E-mail

If you have access to a computer connected to the internet, we encourage you to use email rather than the telephone for communication purposes. For all e-mail communication in this module use the course contact link on *myUNISA* or find out the lecturer's name in *Tutorial letter 301* and e-mail the lecturer directly.

Queries about the content of the module must be directed to the discussion forum or via e-mail to the responsible lecturer. You can use the **course contact** link on *myUNISA* to send e-mail to

the course lecturer. The response time will be determined by the amount of detail that your question requires.

NB: Lecturers in this module do not handle administrative queries such as exam extensions, late submission, admission and registration. Please contact the relevant departments directly in this regard.

5.3 Peer support – discussion forum

There is more to the course than assignments. Discussion forum will help if you participate regularly. Discussion forum participation means contributing to the understanding of concepts covered in your syllabus, instead of just viewing other students' comments. Study shows that student who are actively participating in discussion forum do well in assignments and exams.

6 MODULE-SPECIFIC STUDY PLAN

Read the **my Studies @ Unisa** brochure for general time management and planning skills. You can plan around the following chapters:

Syllabus	Assignment	Chapters
Investigating systems requirements	1	chapter 2– examinable
Use cases	1	chapter 3 - examinable
Domain modelling	1	chapter 4 - examinable
Extending the requirement Model	1 & 2	chapter 5 - examinable
Essentials of Designing and the Design Activities	2	chapter 6 - examinable
Approached to Systems Development	2	chapter 8 - examinable
Object-oriented design: Principles	2	chapter 10 - examinable
Object-oriented design: Use case realization	2	chapter 11 - examinable
Designing systems interface, control and security	2	chapter 12 - examinable

Please note:

Non-examinable chapters are essential but we won't set assessment question from those chapters. In fact, it is important to read the whole textbook in order to ensure a comprehensive understanding of the whole analysis and design concept. Meanwhile, we want to focus on OO concepts for assessment purposes.

Your textbook also includes chapters that focus on traditional approaches which we have tried to eliminate. However, some of the OO concepts have developed from traditional approaches (and sometimes overlap). It is thus advisable to read more than merely the prescribed chapters in order to contextualise your studies.

You should complete **ALL** the questions in the assignments, even though not all the questions may be marked. In other words, selected questions will be marked in all submissions but students will not be informed beforehand which questions will be marked. You will, however, receive a complete solution to all the questions in the assignments in the next tutorial letter. You may also be expected to evaluate your own assignment according to a given model solution.

We will not accept additions to students' answers for assignments or later versions. All diagrams should be drawn in "portrait" orientation. If MS Visio or any drawing

tool is used, convert the document to a PDF format before submission, otherwise drawings and tables will be distorted and we will not accept a resubmission.

Students are allowed to discuss the problems set for the assignments with fellow students. However, we expect students to do the final implementations themselves. Should a student copy another student's solution, both students will receive zero credits and we will not enter into any discussion about who did the original work. This means that although you may explain a solution to a fellow student, you should not give them access to your solution

7 MODULE PRACTICAL WORK AND WORK-INTEGRATED LEARNING

There are no practicals for this module.

8 ASSESSMENT

8.1 Assessment plan

This module consists of three assessments:

- Assignment 01 – contained in this tutorial letter
- Assignment 02- contained in this tutorial letter
- Examination – to be written at the end of the semester in the exam centre you selected during registration

All three assessments, that is the two assignments plus the exam, contribute towards your final mark at the end of the semester.

Assignment 01 (50%) + Assignment 02 (50%) = Year mark (100%)

Year mark (20%) + Exam mark (80%) = Final mark

8.2 General assignment numbers

The table below summarises the assignments scheduled for the year:

SEMESTER	ASSIGNMENT NUMBER
1	01
1	02
2	01
2	02

8.2.1 Unique assignment numbers

SEMESTER	ASSIGNMENT NUMBER	UNIQUE_NUMBER
1	01	578801
1	02	578813
2	01	615075
2	02	615083

8.2.2 Due dates for assignments

SEMESTER	ASSIGNMENT	UNIQUE_NUMBER	DUE DATE
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	NUMBER		
1	01	578801	10/03/2015
1	02	578813	15/04/2015
2	01	615075	30/07/2015
2	02	615083	18/09/2015

8.3 Submission of assignments

Please ensure that your assignments reach the university **on or before the due dates**. Kindly note that **NO** exceptions or concessions will be made for any students who may claim that their assignments were lost in the post or incorrectly submitted. Bear in mind that you will **NOT** obtain admission to the examination on the basis of your expertise in computers, experience at work, or for any other reason. You will **only** obtain admission to the examination **through the submission of your assignments**, especially Assignment 01. Students who fail to submit assignments or submit them late **will automatically be excluded from the exam**. You will receive credit for each assignment submitted on time and, regardless of the marks you obtain for each assignment, your early submission of them guarantees you a seat in the exam hall for this module!

Study the **my Studies @ Unisa brochure for detailed instructions on the submission of assignments**.

All assignments are printed by the Assignments Section on a predetermined date. The submitted assignments are marked through batch processing, and late assignments will therefore NOT be considered. The Assignments Section will notify you of the results. The lecturers have NO control over the marking process or the marks allocated. Please do NOT call the lecturers about the results of your assignments. DO NOT ask for an extension if you cannot make the date for a particular assignment, but start working on the next one instead.

You can submit your assignments:

- ☐ by post
- ☐ by placing them in one of Unisa's assignment boxes
- ☐ electronically via *myUNISA*
- ☐ in a PDF format (NO RESUBMISSION)

8.3.1 Electronic submission of a multiple-choice assignment

- ☐ Connect to the URL:  <https://my.unisa.ac.za>.
- ☐ Register to become a user.
- ☐ Retain proof of your submission.

Please avoid any form of plagiarism when completing your assignments. Plagiarism is the act of taking the words, ideas and thoughts of others and passing them off as your own. It is a form of theft which involves a number of dishonest academic activities.

All students receive a copy of the *Disciplinary Code for Students* (2004) when they register. You are advised to study the Code, especially sections 2.1.13 and 2.1.4 (2004:3–4). Also read the university's *Policy on Copyright Infringement and Plagiarism*.

8.3.2 Electronic submission of an essay assignment

- ☐ Type your assignment using a program such as MSWord, Word Perfect or Notepad. Avoid using macros or complicated diagrams.
- ☐ The tour on *myUNISA* provides guidelines on the electronic submission of assignments. Follow the instructions carefully.
- ☐ Convert your assignment to **pdf** format
- ☐ Upload your assignment.

Essay assignments must be submitted for marking. These will either be marked or considered for evaluation by the lecturers of ICT2622. In this module, evaluation includes the following:

- ☐ You **MUST** submit your assignment.
- ☐ The lecturers will evaluate the quality of your assignment.
- ☐ The lecturers will assign an impression mark

8.4 Assignments

NB: Most of the questions are cross-referenced. You may have to answer other questions to finish assignment questions or read previous chapters. We have tried to limit the number of examinable chapters but sometimes you will have to read other chapters in order to answer the questions.

For this module, you are required to complete and submit two (2) COMPULSORY assignments and write one examination. Assignment 01 consists of multiple choice questions, and assignment 02 long questions. Examination will take place in Oct/Nov 2015.

The table below shows assignment numbers and their due dates.

8.5 Due dates of the assignments

Assignment number	Unique number	Due date:	Semester
01	578801	10/03/2015	1
02	578813	15/04/2015	1
01	615075	30/07/2015	2
02	615083	18/09/2015	2

You will find assignments in the Learning Unit link on myUNISA.

According to Unisa regulations, the assignments contribute towards a student's year mark, which will contribute 20% towards his or her final mark. In this module, all assignments

9 OTHER ASSESSMENT METHODS

Students are required to write all assignments and write venue-based examination at the end of the semester.

10 EXAMINATION

Read the **my Studies @ Unisa** brochure for general examination guidelines and examination preparation guidelines.

An exam tutorial letter will be **made available on myUNISA** during the course of your studies which will help you to prepare for the exam.

11 FREQUENTLY ASKED QUESTIONS

I have not received some of my study material? What should I do?

The Dispatch Department is responsible for distributing printed material. If the study material took longer to reach you than expected, you can visit the *myUNISA* portal and download the course material from the *official study material* link.

How do I go about forming a study group?

Students are encouraged to form study groups. This is quite easy if you regularly visit discussion forums and interact with other students. Regional centres organize tutorial classes upon requests from students. Enquire at the regional office in this regard.

When will I get my assignment back?

It takes between four and five weeks to mark an assignment, and only after this period will it be returned to you. If you have not received your assignment after this period, check the discussion forums to see if there are any delays or contact the Assignment Department.

What mark did I receive for my assignment?

As soon as your assignment has been marked, the mark you received will be displayed on the myUNISA system.

Have you received my assignment?

If you used myUNISA to upload your assignment, you should immediately see that the assignment is on the system, next to the applicable assignment in the assignment list. If not, re-enter your answers. If you used the postal system, check myUNISA after two to three days after submitting your assignment. If it is not on the system, make enquiries with the Assignment Department. If it was not received, you will have to resubmit it.

What software package should I use to draw the diagrams?

You may use any software that you have access to. Microsoft Visio is probably the most popular but you should be able to do most of the diagrams in Microsoft Power Point. **Once you have drawn your diagram, convert your assignment to pdf before submitting.**

12 SOURCES CONSULTED

Satzinger, JW, Jackson, RB & Burd SD. 2014. *Introduction to Systems analysis and design: An Agile, Iterative Approach*. 6th edition. USA: Thomson Course Technology.

13 CONCLUSION

We wish all students best in studying towards completion of their qualifications. You should always feel free to contact your lecturer whenever you need help with course content.

14 ADDENDUM

No addendum