Tutorial Letter 101/0/2023

Theoretical Computing I

COS1501

Year Module(s)

School of Computing

IMPORTANT INFORMATION

Please register on myUnisa, activate your myLife e-mail account and make sure that you have regular access to the myUnisa module website, COS1501-23-Y, as well as your group website.

Note: This is a fully online module. It is, therefore, only available on myUnisa.

BARCODE

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1 INTRODUCTION

Dear Student

Unisa is a comprehensive open distance e-learning (CODeL) higher education institution. The comprehensiveness of our curricula encapsulates a range of offerings, from strictly vocational to strictly academic certificates, diplomas and degrees. Unisa's "openness" and its distance eLearning character result in many students registering at Unisa who may not have had an opportunity to enrol in higher education. Our CODeL character implies that our programmes are carefully planned and structured to ensure success for students ranging from the under-prepared but with potential to the sufficiently prepared.

Teaching and learning in a CODeL context involve multiple modes of delivery ranging from blended learning to fully online. As a default position, all post graduate programmes are offered fully online with no printed study materials, while undergraduate programmes are offered in a blended mode of delivery where printed study materials are augmented with online teaching and learning via the learner management system – myUnisa. In some instances, undergraduate programmes are offered fully online as well.

Furthermore, our programmes are aligned with the vision, mission and values of the University. Unisa's commitment to serve humanity and shape futures combined with a clear appreciation of our location on the African continent, Unisa's graduates have distinctive graduate qualities which include

- independent, resilient, responsible and caring citizens who are able to fulfil and serve in multiple roles in their immediate and future local, national and global communities
- having a critical understanding of their location on the African continent with its histories, challenges and potential in relation to globally diverse contexts
- the ability to critically analyse and evaluate the credibility and usefulness of information and data from multiple sources in a globalised world with its ever-increasing information and data flows and competing worldviews
- how to apply their discipline-specific knowledges competently, ethically and creatively to solve real-life problems
- an awareness of their own learning and developmental needs and future potential

This module is fully online.

Whether a module is offered either as blended (meaning that we use a combination of printed and online material to engage with you) or online (all information is available via the internet), we use myUnisa as our virtual campus. This is an online system that is used to administer, document and deliver educational material to you and support engagement with you. Look out for information from your lecturer as well as other Unisa platforms to determine how to access the virtual myUnisa module site. Information on the tools that will be available to engage with the lecturer and fellow students to support your learning will also be communicated via various platforms.

You are encouraged to log into the module site on myUnisa regularly (that is, at least twice per week). [the module website code written out in full, e.g. COS1501-23-Y.

Because this is a fully online module, you will need to use myUnisa to study and complete the learning activities for this module. Visit the website for COS1501-23-Y on myUnisa frequently. You will find the study guide on myUnisa under Official Study Material, as this module does not have a textbook.

We wish you every success with your studies!

2 MODULE OVERVIEW

2.1 Purpose

Students who have completed this module successfully will be able to critically apply the fundamental knowledge and skills of discrete mathematics. The module forms part of the theoretical foundation of a Computer Science major. This background is relevant to computing fields such as relational databases, the development of provably correct programs, and the analysis of algorithms that will contribute to the development of computing in Southern Africa, Africa, or globally. The module will support further studies and applications in the computing discipline.

2.2 Outcomes

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

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

- *Specific outcome 1*: Manipulate logical arguments, using a variety of mathematical tools.
- *Specific outcome 2*: Construct proofs in a clear and concise way using mathematical reasoning techniques.
- *Specific outcome 3*: Demonstrate knowledge and understanding of the definitions, laws and operations of set theory.
- *Specific outcome 4*: Synthesise and critically analyse relations, functions and binary sets that are represented as sets containing ordered pairs.
- *Specific outcome 5*: Perform operations on vectors and matrices.

3 CURRICULUM TRANSFORMATION

Unisa has implemented a transformation charter, in terms of which the university has placed curriculum transformation high on the teaching and learning agenda. Curriculum transformation includes 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. All of these will be phased in at both programme and module levels, and as a result of this you will notice a marked change in the teaching and learning strategy implemented by Unisa, together with the way in which the content is conceptualised in your modules. We encourage you to embrace these changes during your studies at Unisa in a responsive way within the framework of transformation

4 LECTURER(S) AND CONTACT DETAILS

4.1 Lecturer(s)

The primary lecturer for this module is Ms Drina du Plessis
Department: School of Computing
Telephone: 011 670 9109 / 0607666031
E-mail: dpleshw@unisa.ac.za

Whenever you contact a lecturer via e-mail, please include your student number in the subject line to enable the lecturer to help you more effectively.

4.2 Department

You can contact the School of Computing as follows:

Telephone number: **011 670 9200**

E-mail: **computing@unisa.ac.za**

4.3 University

Contact addresses of the various administrative departments appear on the Unisa website: http://www.unisa.ac.za/sites/corporate/default/Contact-us/Student-enquiries.

Please include the student number in all correspondence

5 RESOURCES

5.1 Prescribed book(s)

This module has no textbook. You will be provided with a study guide under Official Study Material on myUnisa

5.2 Recommended book(s)

Should you wish to know more about a particular topic, you may consult the following books. Please note that these books are not necessarily included in the Study Collection in the Unisa library. The library cannot guarantee that they will be available.

ENSLEY, D.E. AND CRAWLEY, J.W. Discrete Mathematics: Mathematical Reasoning and Proof with Puzzles, Patterns and Games. John Wiley & Sons, Inc., 2006.

GRIMALDI, R.P. Discrete and Combinatorial Mathematics: An applied Introduction, 5th edition. Pearson Education, 2004.

JOHNSONBAUGH, R. Discrete Mathematics, 7th edition. Pearson Education Inc., 2009.

LABUSCHAGNE, W.A. A User-friendly Introduction to Discrete Mathematics for Computer Science. Pretoria, UNISA, 1999.

ROSEN, K.H. Discrete Mathematics and its Application, 6th edition. McGraw-Hill, 2007.

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

5.3 Electronic reserves (e-reserves)

E-reserves can be downloaded from the library catalogue. More information is available at: http://libguides.unisa.ac.za/request/request

5.4 Optional CAI tutorial

The computer-aided instruction (CAI) tutorial "Relations" will not be available on CD as from 2020. You can download it from the website as explained in Section 9 (Frequently asked questions) in this Tutorial letter. The interactive CAI tutorial is a supplementary study aid. It deals with sets and the main properties of relations, such as reflexivity, irreflexivity, symmetry, antisymmetry and transitivity. It also explores the properties of different types of relations. These concepts are discussed in study units 3, 5 and 6 of the study guide. **This CAI is not compulsory, and you will not be examined on any specific example in the CAI,** but if you do not understand sets and relations, and their properties, the CAI tutorial is a good exercise to go through.

5.5 Library services and resources

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. the services offered by personal librarians and the request a literature search service offered by the information search librarians), go to http://www.unisa.ac.za/sites/corporate/default/Library/Library-services/Research-support
- For library training for undergraduate students, go to https://www.unisa.ac.za/sites/corporate/default/Library/Library-services/Training

The library has created numerous library guides, available at 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
- A–Z of library databases: https://libguides.unisa.ac.za/az.php

Important contact information:

- Ask a librarian: https://libguides.unisa.ac.za/ask
- Technical problems encountered in accessing library online services: Lib-help@unisa.ac.za
- General library-related queries: Library-enquiries@unisa.ac.za
- Queries related to library fines and payments: Library-fines@unisa.ac.za
- Social media channels: Facebook: UnisaLibrary and Twitter: @UnisaLibrary

6 STUDENT SUPPORT SERVICES

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

This brochure contains important information and guidelines for successful studies through Unisa.

If you need assistance with regard to the myModules system, you are welcome to use the following contact details:

- Toll-free landline: 0800 00 1870 (Select option 07 for myModules)
- E-mail: mymodules22@unisa.ac.za or myUnisaHelp@unisa.ac.za

You can access and view short videos on topics such as how to view your calendar, how to access module content, how to view announcements for modules, how to submit assessment and how to participate in forum activities via the following link:

https://dtls-qa.unisa.ac.za/course/view.php?id=32130

Registered Unisa students get a free myLife e-mail account. Important information, notices and updates are sent exclusively to this account. Please note that it can take up to 24 hours for your account to be activated after you have claimed it. Please do this immediately after registering at Unisa, by following this link: myLifeHelp@unisa.ac.za

Your myLife account is the **only** e-mail account recognised by Unisa for official correspondence with the university and will remain the official primary e-mail address on record at Unisa. You remain responsible for the management of this e-mail account.

6.1 First-Year Experience Programme

Many students find the transition from school education to tertiary education stressful. This is also true in the case of students enrolling at Unisa for the first time. Unisa is a dedicated open distance and e-learning institution, and it is very different from face-to-face/contact institutions. It is a mega university, and all our programmes are offered through either blended learning or fully online learning. It is for this reason that we thought it necessary to offer first-time students additional/extended support to help them seamlessly navigate the Unisa teaching and learning journey with little difficulty and few barriers. We therefore offer a specialised student support programme to students enrolling at Unisa for the first time – this is Unisa's First-Year Experience (FYE) Programme, designed to provide you with prompt and helpful information about services that the institution offers and how you can access information. The following FYE services are currently offered:

- FYE website: All the guides and resources you need in order to navigate through your first year at Unisa can be accessed using the following link: www.unisa.ac.za/FYE
- FYE e-mails: You will receive regular e-mails to help you stay focused and motivated.
- FYE broadcasts: You will receive e-mails with links to broadcasts on various topics related to your first-year studies (e.g. videos on how to submit assessments online).
- FYE mailbox: For assistance with queries related to your first year of study, send an e-mail to fye@unisa.ac.za .

6.2 E-tutors

With effect from 2013, Unisa offers online tutorials (e-tutoring) to students registered for modules at NQF level 5, 6 and 7, this means qualifying undergraduate modules.

Once you have been registered for a qualifying module, you will be allocated to a group of students with whom you will be interacting during the tuition period as well as with an e-tutor who will be your tutorial facilitator. Thereafter you will receive an sms informing you about your group, the name of your e-tutor and instructions on how to log onto myUnisa in order to receive further information on the e-tutoring process.

Online tutorials are conducted by qualified e-tutors who are appointed by Unisa and are offered free of charge. All you need to be able to participate in e-tutoring is a computer with internet connection. If you live close to a Unisa regional centre, please feel free to visit this centre to access the internet. E-tutoring takes place on myUnisa where you are expected to connect with other students in your allocated group. It is the role of the e-tutor to guide you through your study material during this interaction process. To get the most out of online tutoring, you need to participate in the online discussions that the e-tutor will be facilitating. Please make use of this opportunity. The e-tutor is also available if you need any help with questions from old exam papers – post your questions on the discussion forum of your e-tutor group, and the e-tutor and your fellow students will comment and assist.

There are modules that students have been found to repeatedly fail, these modules are allocated face-to-face tutors and tutorials for these modules take place at the Unisa regional centres. These tutorials are also offered free of charge, however, it is important for you to register at your nearest Unisa regional centre to secure attendance of these classes.

6.3 Free computer and internet access

Unisa has entered into partnerships with establishments (referred to as Telecentres) in various locations across South Africa to enable you (as a Unisa student) free access to computers and the Internet. This access enables you to conduct the following academic related activities: registration; online submission of assignments; engaging in e-tutoring activities and signature courses; etc. Please note that any other activity outside of these is for your own costing e.g. printing, photocopying, etc. For more information on the Telecentre nearest to you, please visit www.unisa.ac.za/telecentres.

7. STUDY PLAN

The study plan will be provided late as the academic calendar was not available when this letter was compiled.

8 HOW TO STUDY ONLINE

8.1 What does it mean to study fully online?

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

- **All your study material and learning activities for online modules are designed to be delivered online on myUnisa.**
- **All your assignments must be submitted online.** This means that you will submit all your assignments on 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.** Lecturers will communicate with you via e-mail and SMS, and use the **Announcements,** the **Discussion Forums** and the **Questions and Answers** tools. You can also use all of these platforms to ask questions and contact your lecturers.

8.2 myUnisa tools

The main tool that we will use is the **Lessons tool**. This tool will provide the content of and the assessments for your module. The lessons contain many videos that you may watch, should you battle to understand certain concepts in the textbook. **Please note that these videos are not compulsory to watch, and that you will not be examined on them**. However, they are quite helpful if you need to refresh your memory about specific topics in the textbook.

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

- **Check for new announcements.** You can also set your myLife e-mail account so that you receive the announcement e-mails on your cellphone.
- **Do the Discussion Forum activities.** When you do the activities for each lesson, 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. Your e-tutor will post the activities on the Discussion Forum.
- **Do other online activities.** For some of the lesson activities you might need to complete a **Self-Assessment** exercise. Do not skip these activities because they will help you complete the assignments and the activities for the module.

We hope that by giving you extra ways to study the material and practise all the activities, this will help you 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.

9. ASSESSMENT

9.1 Assessment criteria

The assessment criteria is given per specific outcome:

Specific outcome 1:

Think in an abstract way, to manipulate logical arguments, using a variety of mathematical tools.

Assessment criteria

- Predicates and symbols are used, to represent properties or relations, all formulated as English sentences
- A given set of logical connectives is used to combine propositions and predicate logic atoms, correctly, from given English sentences into equivalent logic sentences
- Truth tables illustrate the result of logical connectives, with the correct relationships
- Quantifiers generalise over predicate logic sentences, within the context
- Classifications of compound statements include tautology, contradiction or neither
- Arguments around propositional and predicate logic sentences are valid.

Specific outcome 2:

Construct proofs in a clear and concise way using mathematical reasoning techniques.

Assessment criteria

- Diagrams and mathematical notation are used to represent the structure of the problem correctly
- Rigorous, precise and convincing proofs. ie. direct proofs, proof by contraposition and proof by contradiction, are constructed correctly
- A counterexample is provided correctly in the case where a mathematical statement is not always true.

Specific outcome 3:

Demonstrate knowledge and understanding regarding the definitions, laws and operations of set theory.

Assessment criteria

- Sets are represented correctly using various notations
- New sets constructed from existing one using set operations are valid
- Set equality are determined correctly
- A counterexample in the case of set inequality is correct
- Sets represented using Venn diagrams are valid
- Equality of Venn diagrams are determined correctly
- A counterexample in the case of inequality of Venn diagrams is correct
- New Venn diagrams constructed from existing ones using set operations are valid.

Specific outcome 4:

Synthesise and critically analyse relations, functions and binary sets that are represented as sets containing ordered pairs.

Assessment criteria

- Particular properties of relations are identified correctly
- Different kinds of relation are defined correctly
- Synthesised relations of a given kind are correct
- New relations constructed from existing ones are valid
- Functions having particular properties are identified correctly
- Inverse function of a given function are defined correctly
- The composition of two given functions is valid
- Synthesised functions of a given kind are valid
- Properties of binary operations can be determined correctly
- Synthesised binary operations satisfying given properties are valid.

Specific outcome 5:
Perform operations on vectors and matrices.

Assessment criteria

- Operations on vectors and matrices are applied in order to construct different ways of storing and listing numbered information correctly.
- The synthesised vector or matrix that fits a place holder within an equation or that holds defined properties is correct.

9.2 Assessment plan

Assessment	Due date
1	Will be announced
2	Will be announced
3	Will be announced
4	Will be announced

- To complete this module, you will be required to submit 4 assessments.
- All information about when and where to submit your assessments will be made available to you via the myModules site for your module.
- Due dates for assessments, as well as the actual assessments are available on the myModules site for this module.
- To gain admission to the examination, you will be required to submit at least one assessment by the due date of assessment 1.
- The year mark counts 20% of the exam mark. It is therefore essential that you submit all your assessments.
- The examination will be a timed MCQ exam and will be written online on the myModules platform.
- You will receive examination information via the myModules sites. Please watch out for announcements on how examinations for the modules for which you are registered will be conducted.

- The examination will count 80% towards the final module mark.

9.3 Year mark and final examination

An integrated assessment system is used for this module. **This means that your final mark is based not only on your examination mark, but also on your performance during the year.** Assignments do not only provide you with an opportunity to evaluate your understanding of the prescribed material (or to give you feedback on your readiness for the examination), but also make a contribution towards your year mark.

Your **final mark** will be calculated as follows:

Year mark (out of 100) × 20% + Examination mark (out of 100) × 80%

In order to pass this module, a final mark of at least 50% is required.

Your **year mark** is based on your assignment marks. Different weights are allocated to the individual assignments. If an assignment is not submitted or is submitted late (for whatever reason), no marks are awarded for such an assignment. *It is your responsibility to ensure that your assignments are submitted on time*. Multiple choice assignments are marked by a computer system at a time set out by the Assignment Section of Unisa – lecturers can therefore not give any extension for multiple choice assignments.

There are **4 assignments** for this module. Assignments will be made available on myUnisa. You will be informed where to find your assignments. The following weights are allocated to the individual assignments:

- Assignment 01: **15%**
- Assignment 02: **30%**
- Assignment 03: **30%**
- Assignment 04: **25%**

Example: The following example shows how the assessment system works, assuming that assignments 01, 02, 03 and 04 were all submitted.

Assignment	**Mark**	**× Weight**	**Contribution to year mark**	**Type of assessment**
01	90%	× 0.15	13.5%	MCQ – more details will be given via an announcement
02	90%	× 0.30	27%	MCQ – more details will be given via an announcement
03	90%	× 0.30	27%	MCQ – more details will be given via an announcement
04	90%	X 0.25	22.5%	MCQ – more details will be given via an announcement
year mark			90%	

The resulting year mark is 90%.

Suppose you obtain 80% in the examination. The final mark will be calculated as follows:

(90 × 0.20)% + (80 × 0.80)% = (18.0 + 64.0)% = 82%.

You can therefore see that in order to get a good year mark that will not influence your examination mark negatively, it is important to put in enough effort in completing your assignments.

Note: The year mark will not contribute towards the final exam of students writing a supplementary examination.

Assignment questions will be provided online on myUnisa. Please check the announcements on a regular basis.

9.4 Assessment due dates

- There are no assignment **due dates** included in this tutorial letter.
- Assignment due dates will be made available to you on the myUnisa landing page for this module. We envisage that the due dates will be available to you upon registration.
- Please start working on your assessments as soon as you register for the module.
- Log on to the myUnisa site for this module to obtain more information on the due dates for the submission of the assessments.

9.5 Submission of assessments

- Unisa, as a comprehensive open distance e-learning institution (CODeL), is moving towards becoming an online institution. You will therefore see that all your study material, assessments and engagements with your lecturer and fellow students will take place online. We use myUnisa as our virtual campus.
- The myUnisa virtual campus will offer students access to the myModules site, where learning material will be available online and where assessments should be completed. This is an online system that is used to administer, document, and deliver educational material to students and support engagement between academics and students.
- The myUnisa platform can be accessed via https://my.unisa.ac.za. Click on the myModules 2023 button to access the online sites for the modules that you are registered for.
- The university undertakes to communicate clearly and as frequently as is necessary to ensure that you obtain the greatest benefit from the use of the myModules learning management system. Please access the announcements on your myModules site regularly, as this is where your lecturer will post important information to be shared with you.
- When you access your myModules site for the module/s you are registered for, you will see a welcome message posted by your lecturer. Below the welcome message you will see the assessment shells for the assessments that you need to complete. Some assessments may be multiple choice, some tests, others written assessments, some

forum discussions, and so on. All assessments must be completed on the assessment shells available on the respective module platforms.

- This module makes use of the quiz tool, i.e. the assessments contain MCQ or true/false question types. To complete quiz assessments, please log on to the module site where you need to complete the assessment. Click on the relevant assessment shell (Assessment 1, Assessment 2, etc.). There will be a date on which the assessment will open for you. When the assessment is open, access the quiz online and complete it within the time available to you. Quiz assessment questions are not included in this tutorial letter (Tutorial Letter 101) and are only made available online. You must therefore access the quiz online and complete it online where the quiz has been created.

- It is not advisable to use a cell phone to complete the quiz. Please use a desktop computer, tablet or laptop when completing the quiz. Students who use a cell phone find it difficult to navigate the **Online Assessment** tool on the small screen and often struggle to navigate between questions and successfully complete the quizzes. In addition, cell phones are more vulnerable to dropped internet connections than other devices. This module has a lot of diagrams, tables etc which makes it difficult on a cell phone. **If at all possible, please do not use a cell phone for this assessment type**.

9.6 The assessments

As indicated in section 9.2, you need to complete at least 1 assessment for this module. Assessments 1 to 3 test your knowledge of the content as specified in the Study plan document in the Additional Resources folder. Assessment 4 will test your knowledge on ALL the prescribed content. It will contain the same number of questions and will be of the same format as the examination. Therefore, you should allow yourself enough time to complete this assessment.

There are no assessments included in this tutorial letter. Assessments and due dates will be made available to you on myModules for this module. We envisage that the due dates will be available to you upon registration.]

9.7 Other assessment methods

Tutorial letters 102 and 103 under Additional Resources contain additional self-assessment exercises that you must work through. Your e-tutor will also put self-assessment quizzes on myModules for you.

9.8 The examination

Examination information and details on the format of the examination will be made available to you online via the myUnisa site. Look out for information that will be shared with you by your lecturer and e-tutors (where relevant) and for communication from the university.

9.8.1 *Invigilation/proctoring*

Since 2020 Unisa conducts all its assessments online. Given stringent requirements from professional bodies and increased solicitations of Unisa's students by third parties to unlawfully

assist them with the completion of assignments and examinations, the University is obliged to assure its assessment integrity through the utilisation of various proctoring tools: Turnitin, Moodle Proctoring, the Invigilator App and IRIS. These tools will authenticate the student's identity and flag suspicious behaviour to assure credibility of students' responses during assessments. The description below is for your benefit as you may encounter any or all of these in your registered modules:

Turnitin is a plagiarism software that facilitates checks for originality in students' submissions against internal and external sources. Turnitin assists in identifying academic fraud and ghost writing. Students are expected to submit **typed** responses for utilisation of the Turnitin software.

The **Moodle Proctoring tool** is a facial recognition software that authenticates students' identity during their Quiz assessments. This tool requires access to a student's **mobile or laptop camera**. Students must ensure their camera is activated in their browser settings prior to their assessments.

The Invigilator "mobile application-based service does verification" of the identity of an assessment participant. The Invigilator Mobile Application detects student dishonesty-by-proxy and ensures that the assessment participant is the registered student. This invigilation tool requires students to download the app from their Play Store (Google, Huawei and Apple) on their **mobile devices** (camera enabled) prior to their assessment.

IRIS Invigilation software verifies the identity of a student during assessment and provides for both manual and automated facial verification. It has the ability to record and review a student's assessment session. It flags suspicious behaviour by the students for review by an academic administrator. IRIS software requires installation on students' **laptop devices** that are enabled with a webcam.

Students who are identified and flagged for suspicious dishonest behaviour arising from the invigilation and proctoring reports are referred to the disciplinary office for formal proceeding.

Please note:

Students must refer to their module assessment information on their myModules sites to determine which proctoring or invigilation tool will be utilised for their formative and summative assessments.

9.9 Supplementary

The supplementary exam for this module is in January/February 2024.

10. ACADEMIC DISHONESTY

10.1 Plagiarism

Plagiarism is the act of taking the words, ideas and thoughts of others and presenting them as your own. It is a form of theft. Plagiarism includes the following forms of academic dishonesty:

- Copying and pasting from any source without acknowledging the source.
- Not including references or deliberately inserting incorrect bibliographic information.
- Paraphrasing without acknowledging the original source of the information.

10.2 Cheating

Cheating includes, but is not limited to, the following:

- Completing assessments on behalf of another student, copying the work of another student during an assessment, or allowing another student to copy your work.
- Using social media (e.g. WhatsApp, Telegram) or other platforms to disseminate assessment information.
- Submitting corrupt or irrelevant files, this forms part of examination guidelines
- Buying completed answers from so-called “tutors” or internet sites (contract cheating).

10.3 For more information about plagiarism, follow the link below:

https://www.unisa.ac.za/sites/myunisa/default/Study-@-Unisa/Student-values-and-rules

11. STUDENTS LIVING WITH DISABILITIES

The Advocacy and Resource Centre for Students with Disabilities (ARCSWiD) provides an opportunity for staff to interact with first-time and returning students with disabilities.

If you are a student with a disability and would like additional support or need additional time for assessments, you are invited to contact (name and e-mail address of the lecturer must be inserted) to discuss the assistance that you need.

12. FREQUENTLY ASKED QUESTIONS

A list of frequently answered questions will be saved under Additional resources on the myModules platform.

13. IN CLOSING

Do not hesitate to contact us by e-mail 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!

Ms Drina du Plessis – lecturer for COS1501- dpleshw@unisa.ac.za

14. ADDENDUM

STEPS FOR DOWNLOADING THE CAI TUTORIAL FROM MYUNISA

The tutorial is available as a zip file under Additional Resources. The tutorial deals with logic circuits, Boolean algebra and Karnaugh diagrams. It is not compulsory to work through the tutorial, but it would benefit you greatly.

To download the tutorial:

Save COS1501.zip to your computer (Choose C drive *Documents* or wherever you want to save it) and then double-click on the saved COS1501.zip.

Choose ***extract*** from the top row of buttons on the opened page. Then click on ***extract* to the right** of the open window.

Double-click on the COS1501 folder that appears, and then double-click on the karnaugh.exe icon (it looks like a round ball with a red ribbon around it).

You can now navigate through the tutorial.

We have tested these steps without experiencing any problem. Depending on your browser and operating system, there may be a slight variation in these steps. If you need to, ask someone more experienced with computers to help you. Also note that you should have WINZIP installed on your computer. Find it free on the internet.

This CAI tutorial is optional. No examination questions will be asked on specific examples in this tutorial.