Tutorial Letter 101/3/2017

Visual Programming 1
INF1511

Semesters 1 and 2

School of Computing

IMPORTANT INFORMATION:

This tutorial letter contains important information about the INF1511 module.

All other important information is sent to your **myLife account** and is available on the module **INF1511 website**.

BARCODE

Define tomorrow.

UNISA | university of south africa

CONTENTS

1   INTRODUCTION

Dear Student

Good day, and welcome to **Visual Programming 1**. This module is presented *ONLINE* only and you will not be receiving any printed materials. You need to register on myUnisa at the **INF1511** website, where you will find all the relevant information you need to complete the module successfully. **PLEASE** ensure that you activate your *myLife e-mail account*. We will be communicating with you only via your *myLife e-mail address*.

These are your first steps toward completing the module:

1. Go to the INF1511 module site on **myUnisa.**
2. Read the **Welcome message** from your lecturer.
3. Download the **TUTORIAL LETTERS** from "**Additional Resources**" on myUnisa:
   - Tutorial letter 102 – examination guidelines
   - Tutorial letter 103 – the **assignments**
   - Tutorial letter 201 – memorandum of assignments (will be published only after the final assignment due date)
   - Tutorial 301 – general information for the School of Computing.

2   PURPOSE OF AND OUTCOMES FOR THE MODULE

2.1   Purpose

The purpose of this module is to provide qualifying learners with the knowledge, skills and competencies they need so that they can apply the visual programming techniques and strategies in solving real-world problems according to industry-approved processes within African, South African and global contexts. This module is intended for first-time programmers. It introduces students to such concepts as "integrated development environment" (IDE) and "graphical user interface" (GUI) and to the implementation of decision making, iteration, and event handling in the visual programming field. These concepts are applied practically for the purpose of solving typical problems through visual programming techniques.

2.2 Outcomes

The following are the module outcomes. On completion of this module, these outcomes are what you would have been expected to learn and what you will be tested on in the examination:

- **Outcome 1** Describe the visual programming concepts for computing including performing arithmetic operations, using the if-else statement, loops and typical programming structures.
- **Outcome 2** Implement decision making using sequences, lists, strings and array structures in the visual programming paradigm.
- **Outcome 3** Apply the writing and calling of general sub-procedures and function procedures in the visual programming paradigm.
- **Outcome 4** Implement the use of classes and operators in the visual programming environment.
- **Outcome 5** Compile a GUI application and implement basic widgets.

3 LECTURER(S) AND CONTACT DETAILS

3.1 Lecturer(s)

The contact information of the lecturer(s) can be obtained from the **Welcome page** at the INF1511 website on myUnisa.

3.2 Department

Please see the COSALL tutorial letter for the telephone numbers of the module lecturers. For **Administrative queries (matters not related to module content)**, please consult the *Study @ Unisa* brochure, which you received with your study material. It contains information on how to contact Unisa (e.g. to whom you can address different queries, important telephone and fax numbers, addresses and details of the times when certain facilities are open).

3.3 University

Telephone	0861 670 411 (South Africa) or +27 11 670 9000 (International)
Email	study-info@unisa.ac.za
Online	http://www.unisa.ac.za
Postal address	University of South Africa, PO Box 392, Unisa, 0003
Please refer to the *Study @ Unisa* brochure for all other relevant contact details.	

4 MODULE-RELATED RESOURCES

4.1 Prescribed books

Introduction to Python Programming and Developing GUI Applications with PYQT, Course

Technology PTR, 2011

HARWANI BM

9781435460973

4.2 Recommended books

It is highly recommended that students use the internet to access free tutorials and training videos.

4.3 Electronic Reserves (e-Reserves)

None

4.4 Library services and resources information

For brief information, go to www.unisa.ac.za/brochures/studies
For detailed information, go to the Unisa website at http://www.unisa.ac.za/ and click on the word **"library"**.
For research support and services of personal librarians, go to
http://www.unisa.ac.za/Default.asp?Cmd=ViewContent&ContentID=7102.

The library has compiled numerous library guides:

- Finding recommended reading in the print collection and e-reserves at–
  http://libguides.unisa.ac.za/request/undergrad
- Requesting material at– http://libguides.unisa.ac.za/request/request
- Postgraduate should be sought at – http://libguides.unisa.ac.za/request/postgrad
- Find , obtain and use library resources and tools to assist in doing research at –
  http://libguides.unisa.ac.za/Research_Skills
- You can read how to contact the library/finding us on social media/frequently asked
  questions at– http://libguides.unisa.ac.za/ask

5 STUDENT SUPPORT SERVICES FOR THE MODULE

Important information will be sent to your myLife account.

6 STUDY PLAN

The proposed schedule for this semester is presented under "Assessment" below. Use your *Study @ Unisa* brochure for time management and planning skills.

7   MODULE PRACTICAL WORK AND WORK-INTEGRATED LEARNING

These do not apply to this module.

8   ASSESSMENT

8.1   Assessment plan

There are FIFTEEN weeks in this semester. You **must** submit all the assignments **electronically**; no hard copies will be accepted. The module assessment consists of eight compulsory assignments and a final exam. Three assignments are MCQ and five are PDF. The **year mark** is the total assignment marks achieved. Final mark = 30% year mark + 70% exam mark. For exam admission, you must submit at least Assignment 04 before the due date. The following is a proposed schedule to pace your studies and ensure that you have sufficient time to complete the assignments:

Week	2017 S1	2017 S2	Chapters (Textbook)	Content
1	16 Jan	19 June	**Chapter 1**	**Introduction to Python** Assignment 01 Assignment 02
2	23	26	**Chapter 2**	**Performing arithmetic operations and implementing loops and statements**
3	30	3 July		Assignment 01 Assignment 02
4	6 Feb	10	**Chapter 3**	**Sequences**
5	13	17		Assignment 03 Assignment 04
6	20	24	**Chapter 4**	**Functions and modules**
7	27	31		Assignment 03 Assignment 04
8	6 March	7 Aug	**Chapter 5**	**Classes**
9	13	14		Assignment 05 Assignment 06
10	20	21	**Chapter 6**	**File handling**
11	27	28		Assignment 05 Assignment 06
12	3 April	4 Sept	**Chapter 7**	**PyQt**
13	10	11		Assignment 07
14	17	18	**Chapter 8**	**Basic widgets**
15	24	25		Assignment 08

8.2   General assignment numbers

Assignments are numbered consecutively per module, starting from 01. The details of the assignments may be found in Tutorial Letter 103, which can be downloaded from the module website. For marking purposes, early assignments are appreciated.

8.2.1   Unique assignment numbers

Each assignment has a unique number in the header. Kindly include this when submitting your assignment. You can obtain the unique numbers on myUnisa. It is important that the **correct** unique number for the assignment is used.

Unique assignment numbers for **Semester 1 2017:**

Ass. Nr.	Group	Format	Unique Nr.	Due Date	Type	Opt.	Normal weight
1 Edit	formative(F)	MCQ	656008	20170227	Individual	M	15
2 Edit	formative(F)	Written	831612	20170306	Individual	M	10
3 Edit	formative(F)	MCQ	643422	20170313	Individual	M	15
4 Edit	formative(F)	Written	711317	20170320	Individual	M	10
5 Edit	formative(F)	MCQ	682421	20170327	Individual	M	15
6 Edit	formative(F)	Written	597044	20170403	Individual	M	15
7 Edit	formative(F)	Written	899314	20170410	Individual	M	10
8 Edit	formative(F)	Written	716216	20170418	Individual	M	10

Unique assignment numbers for **Semester 2 2017:**

Ass. Nr.	Group	Format	Unique Nr.	Due Date	Type	Opt.	Normal weight
1 Edit	formative(F)	MCQ	776676	20170731	Individual	M	15
2 Edit	formative(F)	Written	842303	20170807	Individual	M	10
3 Edit	formative(F)	MCQ	780104	20170814	Individual	M	15
4 Edit	formative(F)	Written	767639	20170821	Individual	M	10
5 Edit	formative(F)	MCQ	700976	20170828	Individual	M	15
6 Edit	formative(F)	Written	570385	20170904	Individual	M	15
7 Edit	formative(F)	Written	876339	20170911	Individual	M	10
8 Edit	formative(F)	Written	749115	20170918	Individual	M	10

8.2.2   Due dates for assignments

NOTE: According to the UNISA system:

- No late assignments will be accepted after these dates.

- The assignment solutions will be released after this date.

- You are encouraged to use the assignments as examination preparation.

Assignment number	Type	Semester 1 Due date	Semester 2 Due date
01	MCQ	27 February 2017	31 July 2017
02	PDF	6 March 2017	7 August 2017
03	MCQ	13 March 2017	14 August 2017
04	PDF	20 March 2017	21 August 2017
05	MCQ	27 March 2017	28 August 2017
06	PDF	3 April 2017	4 September 2017
07	PDF	10 April 2017	11 September 2017
08	PDF	17 April 2017	18 September 2017

8.3 Submission of assignments

- Onscreen marking is used for this module. Submit PDF documents **electronically**.

- Assignments are **only** submitted **electronically**, via myUnisa (see the *Study @ Unisa* brochure).

- Assignments are part of the learning material for this module. As you do an assignment, read the prescribed book, consult other resources, discuss with fellow students or tutors, to ensure that you are actively engaged in learning.

- Enquiries about assignments must be addressed to the Assignment Section (see the *Study @ Unisa* brochure).

- Solutions for assignments will be available for download in tutorial letters. The assignments and the commentaries constitute an important part of your learning and should help you to prepare for the examination.

- Handwritten code in assignments will be given a zero mark.

- Practical programming assignments must be submitted in document format, where the document contains cut-and-paste sections of Python code **and** a print-screen of the form and object list. The code must be compiled. Pseudo-code will not be marked.

- Detected duplicate assignments will not be tolerated. You must submit your own work. It is unacceptable for students to submit assignments that are identical in content on the pretext that they worked together. This is copying (plagiarism), and therefore you may be penalised or subjected to disciplinary proceedings by Unisa.

- To submit an assignment via myUnisa, go to myUnisa and log in with your student number and password. Select the module. Click on "Assignments" in the left-hand menu. Click on the number of the assignment you want to submit. Follow the instructions.

9   OTHER ASSESSMENT METHODS

The assessment for this module includes:

- Self-assessment questions from previous papers with explanations.

- Past exam papers (unfortunately, however, the memorandums cannot be released), which will give you a good idea of the expectations for this module.

10   EXAMINATION

Please consult the examination timetable on myUnisa. Tutorial 102 contains information about the examination.

11   FREQUENTLY ASKED QUESTIONS

Please view these on the module website.

12   SOURCES CONSULTED

URL references for the additional teaching materials used are available under "Learning Units" on the module site where applicable.

13   IMPORTANT INFORMATION

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.

14   CONCLUSION

This module requires many hours of programming practice. You are encouraged to practice the programming to ensure that you grasp the concepts. Most important, however, is to have fun while learning!