INTRODUCTION TO ICT - FIRST SEMESTER							CS1L
Week	Begins	Mon	Tues	Wed	Thurs	Fri	Topic
		Orientation week: Monday 5 to Friday 09 Feb					
1	12 Feb						Introduction
2	19 Feb						
3	26 Feb					TEST	
4	4 Mar						Spreadsheets and Problem Solving
5	11 Mar						
6	18 Mar				Human Rights Day	TEST	
7	25 Mar						Presentation Software
	1 Apr	Vacation					
8	8 Apr						Presentation Software
9	15 Apr						
10	22 Apr		TEST				Human Computing
11	29 Apr			Workers Day			
12	6 May						
13	13 May		TEST				
		Swot Time (20 May - 23 May) & June Exams (24 May - 14 Jun)					

Introduction to ICT
CS1L

Introduction to ICT, also known as CS1L, is a semester course which is offered in the first semester of the year, when it is written off. It is a compulsory course in the Pharmacy faculty, and is taken as a service course by students from across the spectrum of faculties at Rhodes.

At the end of the CS1L or Introduction to ICT course students should be familiar with modern computing environments. They should be relatively proficient in the use of word processors, spreadsheets, presentation software and desktop publishing tools, and be able to select the appropriate tools or combinations thereof to solve mathematical problems of varying complexity, represent data in various ways, and create documents, presentations, posters, and similar documents. They should also be familiar with relevant social issues relating to computing and the Internet including an understanding of online risks, social networks, health risks such as repetitive strain injury, and the impact of computing on society, including topical issues.

NOTE: If you plan to take CS102 or any higher credit in Computer Science, you must register for CS101 rather than CS1L.

COURSE CO-ORDINATOR
Your course co-ordinator is **Prof Nomusa Dlodlo**, Room 002, Hamilton Building (N.Dlodlo@ru.ac.za).

ENTRANCE REQUIREMENTS AND SUBMINIMA
Entrance requirement: none
Minimum performance for the granting of supplementary examinations: 40%

LECTURES AND PRACTICALS
There are: 4 formal lectures per week
                 4 formal tests per semester (during lecture periods)
                 Occasional spot tests
                 1 formal practical session per week (3 hours per session)
                 Additional after hours reading and exercises are recommended.

Lectures: Monday   4   10:30am
              Tuesday   5   11:25am
              Wednesday   No lecture
              Thursday   2   8:40am
              Friday   3   9:35am

Practicals: Tuesday, Wednesday or Thursday afternoons starting at 14h00 – not all afternoons depending on numbers.

Practicals will be held in the JACARANDA LABORATORY (ground floor of the New Arts Building). You will be allocated to a particular session and tutor – you cannot choose your own time.

Practical work must be handed in at the end of the week, or as specified by the lecturer. You are encouraged to discuss the problems set on practical afternoons with each other, and to seek help from each other (and, of course, from your tutor). However, you are expected to hand in your OWN INDIVIDUAL SOLUTION, unless you have specifically been asked to work as part of a team. Students who don't abide by this will be dealt with severely.

NOTE: It has been shown over many years that students who attend lectures regularly, perform better in summative assessments than those with similar abilities. We therefore, strongly advise that you attend all timetabled lecture, tutorial, and practical sessions. If you really feel that you can master the course content by teaching yourself, then you should perhaps consider enrolling at a correspondence university, which is likely to be more cost effective.

TEXTBOOKS AND HANDOUTS

There is no textbook for this course. Course material is available online via RUconnected.
A non-refundable amount of R60-00 will be charged to your University account at the start of the course for class handouts and consumables.

COURSE OBJECTIVES AND OUTLINE

The Introduction to ICT course is intended to do more than teach basic computer literacy skills on current packages. It provides a combination of theoretical knowledge and practical skills that together comprise a mental framework that will enable the student to adapt and learn new IT packages as they change, to solve new IT problems and use additional package features that are not explicitly taught in this course. The course has a strong practical focus with the intention of enabling students to use ICTs as tools for productivity and problem solving in their lives.

The course is delivered as four modules as described below:

Introduction [3 weeks]
This section provides an introduction to modern computing environments and use of the Internet. Key areas covered include:
- Introduction to computing hardware and peripherals
- Information storage and retrieval
- Searching for information sources online
- Word processing
- Ethics in computing

Spreadsheets and Problem Solving [3 weeks]
Building on the concepts in the introductory module, students are introduced to spreadsheets and their application in the solution of a number of common information processing problems. This is followed by a focus on using spreadsheets as a tool for modelling and solving a number of real world problem types.

Examples of these include:
- Tracking drugs in a pharmacy
- Investment management
- Bond repayments

Presentation Software [3 weeks]
Being able to present information and data in an accessible format is an important part of communication. This module introduces presentation software in the form of PowerPoint (MS Office) and discusses the main ideas behind presentation software. It also offers initial concepts on digital imaging, to enable better practical manipulation of images. So, the key areas discussed include:
- Using PowerPoint
- Basic concepts of digital imaging

Human Computing [3 weeks]
This module deals with the human aspects of computing, covering issues of both a personal and a wider social nature. Key elements include:
- Impact of computing on society
- Computing and ethics

Of course, it is too much to hope that computer problems can all be solved simply by finding the right "package". In many cases, special packages have to be produced – and in any event, the general purpose tools for word processing, spreadsheets, communications and so on also have to be produced somewhere! Such software packages are developed by writing computer programs. Design and implementation of computer programs is covered in other Computer Science courses.

It is important that you are up-to-date with the material covered in lectures before doing your practicals so that you are in a position to get started on the assignment straight away. This is how you will be able to take maximum advantage of the tutorial help available.

YOUR TIME COMMITMENT

The Department of Computer Science expects a CS1L student to spend a minimum of **11 hours per week** on Computer Science. This time should be divided up approximately as follows:
- 4 hours per week on attending lectures in Computer Science
- 4 hours per week on lecture revision, further reading and extra practical work, including class assignments
- 3 hours per week on practicals

PERFORMANCE AND ASSESSMENT

DP regulations
- For your DP to be granted, you are required to maintain an average of at least 50% for your practicals, and achieve an average of at least 40% for your tests.
- No extensions will be granted for tests, but you may be given an average at the end of the semester if you have been granted a leave of absence.
- Practical assignments and tests missed without leave of absence will gain you a mark of 0 (zero). It is in your best interest to ensure that you hand in all practical assignments and write all tests, otherwise, you will endanger your chances of achieving the minimum requirements as stated above. You are encouraged to keep your test and practical marks as high as possible so that you don't endanger your chances of achieving the minimum requirements.

For more information regarding DPs please see DP Regulations under Departmental Dynamics.

Assessment
- Test dates are marked on the course programme and are written during the lecture periods, normally in the Great Hall or Great Hall Verandah.
- The assessment of students in CS1L is based on a total of:
    - 25% semester mark (calculated from the results of practicals and test assessments)
    - 75% 3-hour examination (theory and practical in one examination, conducted in the laboratory)

SUPPLEMENTARY EXAMINATIONS

A mark of between 40% and 49% allows a student to write a Supplementary examination (see the "Entrance Requirements & Subminima" section). Queries in this regard should be directed to your Dean.

BUSINESS PROBLEM SOLVING WITH COMPUTERS						CS112
Week	Begins	Mon	Tues	Wed	Thurs	Fri	Topic
		June/July Vacation					
1	8 Jul						Introduction
2	15 Jul						
3	22 Jul				TEST		Spreadsheets
4	29 Jul						
5	5 Aug				TEST	Women's Day	Business Problem Solving
6	12 Aug						
	19 Aug	Vacation					
7	26 Aug				TEST		Infrastructure
8	2 Sep						
9	9 Sep				TEST		Ethics
10	16 Sep						
11	23 Sep		Heritage Day		TEST		Information Systems Theory
12	30 Sep						
13	7 Oct				TEST		
		Swot Time (14 Oct - 17 Oct) & November Exams (18 Oct - 15 Nov)					

Business problem solving with computers
CS112

CS112 is a semester course, which is offered in the **second** semester of the year. The course is written off at the end of the semester. CS112 is the entry-level course for majoring in Information Systems, and is **required** for entry into IS201. It may also be taken in other degree structures where knowledge of computer fundamentals is desirable.

COURSE CO-ORDINATOR
Your course co-ordinator is **Prof Nomusa Dlodlo,** Room 002, Hamilton Building (N.Dlodlo@ru.ac.za).

ENTRANCE REQUIREMENTS AND SUBMINIMA
Entrance requirement: none
Minimum performance for the granting of supplementary examinations: 40%

LECTURES AND PRACTICALS
There are: 5 formal lectures per week
Tests during the semester
1 formal practical session per week (3 hours per session)
Additional after-hours reading and exercises are recommended.

		Stream 1	Stream 2
Lectures:	Monday	1 (7:45am)	2 (8:40am)
	Tuesday	2 (8:40am)	3 (9:35am)
	Wednesday	3 (9:35am)	4 (10:30am)
	Thursday	4 (10:30am)	5 (11:25am)
	Friday	5 (11:25am)	1 (7:45am)

Practicals: Weekday afternoons starting at 14h00.

Practicals will be held in the JACARANDA LABORATORY (ground floor of the New Arts Building). You will be allocated to a particular session and tutor – you cannot choose your own time.

Practical work must be handed in at the end of the week, or as specified by the lecturer. You are encouraged to discuss the problems set on practical afternoons with each other, and to seek help from each other (and, of course, from your tutor). However, you are expected to hand in your OWN INDIVIDUAL SOLUTION, unless you have specifically been asked to work as part of a team. Students who don't abide by this will be dealt with severely.

NOTE: It has been shown over many years that students who attend lectures regularly, perform better in summative assessments than those with similar abilities. We therefore, strongly advise that you attend all timetabled lecture, tutorial, and practical sessions. If you really feel that you can master the course content by teaching yourself, then you should perhaps consider enrolling at a correspondence university, which is likely to be more cost effective.

TEXTBOOKS AND HANDOUTS
There is no textbook for this course. Course material is available online via RUconnected.
A non-refundable amount of R60-00 will be charged to your University account for CS112 at the start of the course for class handouts and consumables.

COURSE OBJECTIVES AND OUTLINE
In the CS112 course, we expose students to the fundamentals of using computers and information technology (IT) to solve problems. The course provides an introduction to critical thinking and fundamental problem solving skills. Some problems are solved using packages like spreadsheets, some are solved without the use of a computer, and some are solved by programming. No previous programming or computer experience is necessary for this course, although basic computer literacy is helpful.

Introduction to the Operational Environment
This introductory module aims to provide students with a foundational understanding of Information and Communication Technology (ICT) and its fundamental concepts. As technology continues to play a crucial role in various aspects of our lives, this course serves as a gateway for students to develop essential skills and knowledge in the realm of ICT. The module provides a clear insight on how data is represented, stored and processed electronically; it explores modern trends and technologies such as artificial intelligence, cloud computing, the internet and the internet of things and their impact on society and business. The module provides hands-on experience through practical exercises, to reinforce theoretical concepts and encourage application of knowledge.

Information Systems Theory
Information Systems Theory is a first-year introductory module for Information Systems (IS), which provides a theoretical background of the field.

This module consists of foundational topics such as Information Systems Fundamentals, Systems Thinking, Hard and Soft Systems Methodology, and applied IS with Information Systems in the organisation.

Although this module is theoretical, it comprises a practical component that enables the student to create high-level designs of information systems based on case studies.

Spreadsheets
Spreadsheets are an important tool in providing solutions to individuals and organisations. The spreadsheet is a 'bread-and-butter' tool in any modern organisation. Respectable proficiency in the use of spreadsheets is essential to any commerce graduate.

Business Problem Solving
The solving of business problems is a fundamental activity in an organisation. Most solutions to problems involve the application of IT in some form. This module focuses on the application of spreadsheets to solve specific business problems. Upon completion of the course, the student should be able to:
- Apply a range of techniques to provide solutions to problems
- Solve business problems and create innovative IT solutions

Infrastructure
This module is designed to provide students with an introduction to IT infrastructure and computer networks. The module explores essential concepts, principles, and technologies that underpin the efficient functioning of modern information systems. It aims to demystify key concepts and technologies that underpin modern information systems, empowering students with a foundational understanding of how technology supports business functions. Students will be able to distinguish the core elements of an IT infrastructure solution, such as clients, servers, other network devices, wired and wireless network links, systems software, and specialized security devices.

Ethics
This module is a two-week exploration of the ethical considerations and challenges associated with computer science and technology. It is designed as part of a larger course to introduce students to the ethical dimensions of technology and promote ethical decision-making in the context of ICT.

YOUR TIME COMMITMENT

The Department of Computer Science expects a CS112 student to spend a minimum of **12 hours per week** on Computer Science. This time should be divided up approximately as follows:
- 5 hours per week on attending lectures in Computer Science
- 4 hours per week on lecture revision, practical preparation and further reading
- 3 hours per week on practicals

IMPORTANT: It is important that you are up-to-date with the material covered in lectures when you arrive at the computer laboratory for your practical session so that you are in a position to get started on the assignment straight away. This is how you will be able to take maximum advantage of the tutorial help available at practical sessions, and ensure that you complete the assignments set for the practical session.

PERFORMANCE AND ASSESSMENT

DP regulations
- For your DP to be granted, you are required to maintain an average of at least 40% for your practicals, and achieve an average of at least 40% for your tests.
- No extensions will be granted for tests, but you may be given an average at the end of the semester if you have been granted a leave of absence.
- Practical assignments and tests missed without leave of absence will gain you a mark of 0 (zero). It is in your best interest to ensure that you hand in all practical assignments and write all tests, otherwise, you will jeopardize your chances of achieving the minimum requirements as stated above. You are encouraged to keep your test and practical marks as high as possible so that you don't endanger your chances of achieving the minimum requirements.

For more information regarding DPs please see DP Regulations under Department Dynamics.

Assessment
- The examination system is based on a mark per minute in all exams.
- The assessment of students is based on a total of:
    - 25% semester mark (calculated from the results of practicals and test assessments)
    - 75% 3-hour examination (theory and practical in one examination, written in the laboratory)

SUPPLEMENTARY EXAMINATIONS

A mark of between 40% and 49% allows a student to write a Supplementary examination (see the "Entrance Requirements & Subminima" section). Queries in this regard should be directed to your Dean.