

FOUN010 Applications of Computing

Section 1: General Information

1.1 Administrative Details

Subject:	Applications of Computing
Code:	FOUN010
Stream	Science, Arts, Commerce
Points	
Pre-requisite	None

1.2 Subject Workload

Number of timetabled hours per week	Number of Personal study hours per week	Total workload hours per week
4	2	6

1.3 Pre-requisites

Students are not required to have undertaken a pre-requisite subject.

1.4 Other resource requirements

List specialist facilities and/or equipment required for the delivery of this subject:

Computing laboratory facilities

Section 2: Academic Details

2.1 Subject Overview

This paper represents an overview for a variety of digital solutions relevant for students who wish to undertake courses within any of the following disciplines: Information Science, Computer Science, or Applied Science. The focus is on applying information and communication technology in a business or organisational context, from a theoretical base to practical application development.

2.2 Learning Objectives and Outcomes

By the end of this paper students should have:

1. the ability to design and construct simple business information systems following industry standards, incorporating the use of database management systems (MS Access);
2. competence using advanced features of MS Excel, and integrate these into a simple business information system;
3. the ability to create simple applications using application modelling software such as MIT's "Scratch" or Applinventor;
4. the ability to discuss the place of computer and information technology in society and the business environment, a broad understanding of ethical and security concepts related to computing.

2.3 Subject Content

- Programming fundamentals
- Spreadsheet
- Database Management Systems

2.4 Teaching Method/Strategies

Practical learning sessions using computers in a computer lab. There is opportunity for questions and discussion. Most laboratories will follow the same teaching pattern. The teacher will demonstrate the skills, and then students will complete exercises to practice and reinforce the skills taught. Teaching methods will vary according to the topics/skills being covered. At times it will be the teacher led demonstration while at other times students will be asked to experiment and try things out.

2.5 Assessment

Assessment Type	When	Weighting	Learning Assessed	Outcomes
Programming	Week 4	20%	1,3	
Spreadsheet	Week 8	30%	1,2	
Practical Examination	Week 12	30%	1	
Theory Examination	Week 12	20%	1,2,4	

2.5.1 Assessment Strategy

Assessment will include a variety of methods Practical and Theory Examinations, online quizzes and related practical tasks. Including formative assessment tasks.

2.5.2 Hurdle Requirement

In order to pass this paper, students must obtain an overall mark of 50% (C-) or better.

2.5.3 Assessment Details

Assessment	Content/ Format	Time	Details
Internal Assessment Task 1	Programming	4 weeks	Problem Solving based task for a programming solution (eg cellphone)
Internal Assessment Task 2	Spreadsheet	4 weeks	Problem Solving based task for a spreadsheet solution
Final Practical	Database	1 hour	Series of practical tasks according to set requirements
Final Theory		1 hour	Combination of Multichoice, Fill-in-the-blank, and Short Answer questions

2.6 Prescribed and Recommended Reading

Prescribed Text:

Recommended Reading:

Websites:

- FOUN010 Quia <https://www.quia.com/pages/pmorrison/foun010>
- GCFlearn.org <http://www.gcflearnfree.org/>
- Goskills <https://www.goskills.com/coupon>
- TutorialsPoint [http://www.tutorialspoint.com/microsoft technologies tutorials.htm](http://www.tutorialspoint.com/microsoft_technologies_tutorials.htm)

3. Subject Details

3.1 Weekly Schedule

Week	Laboratory	Laboratory
1	Lab 1 - FY learning Portals. Introduction to Programming Assignment	Lab 2 - Application Development Start Practical Assignment
2	Lab 3 - Application Development	Lab 4 - Application Development
3	Lab 5 - Application Development	Lab 6 - Application Development
4	Lab 7 : Consolidation	Lab 8 - Business Information solutions Deadline: Practical Assignment
5	Lab11 - Business Information solutions Start Practical Assignment- Excel	Lab 10 - Business Information solutions
6	Lab11 - Business Information solutions	Lab 12 - Business Information solutions
7	Lab 13 - Business Information solutions	Lab 14 - Business Information solutions
8	Lab 15 Business Information solutions	Lab 16 - Information Systems Development deadline: Practical Assignment- Excel
9	Lab 17 – Information Systems Development	Lab 18 - Information Systems Development
10	Lab 19 - Information Systems Development	Lab 20 Information Systems Development
11	Lab 21 - - Information Systems Development	Lab 22 - Information Systems Development
12	Lab 23 - Information Systems Development	Lab 24 - Revision - practice test