

# **PADM5082**

## **ICT APPLICATIONS**

**An elective course in the degree of  
Master of Management  
in the field of ICT Policy & Regulation**

**Convenor: Prof Barry Dwolatzky  
Facilitator: Adrian Schofield**

**20-23 September 2010**

			<b>Learning Information Networking Knowledge</b>
			Wits University Graduate School of Public and Development Management



## CONTENTS

### 1 Content overview

This Elective Course covers some of the key aspects associated with the acquisition and use of ICT Applications. ICT Applications are invariably associated with trade-offs and strategic decisions. This elective course presents a high-level overview of some of the important technological trends that influence the nature of modern ICT Applications.

The first group of sessions begins by highlighting the fact that the exponential growth in the power of hardware continues to drive demand for more powerful and sophisticated software. The System Development Lifecycle (SDLC) is described. The acquisition of ICT Applications to meet business needs is then covered. This is followed by an overview of different software architecture models.

The important topics of privacy, security and protection of Intellectual Property (IP) is then discussed within the context of South African law.

Quality is a critical factor in the acquisition and use of ICT Applications. A session will be devoted to the role introducing a culture of process maturity in supporting quality ICT Applications.

A number of specific application domains are then discussed. These include e-Commerce, e-Government, e-Learning, e-Finance and e-Health. Finally skills required both in the use and the development of ICT Applications are discussed.

The learner is thus expected to gain an appreciation of where ICT Applications come from and how they are used in modern organisations. Acquisition and use of ICT Applications require decision makers to have a good understanding of key trade-offs and modern trends. This course should prepare learners to make such informed decisions.

### 2 Session Summary

	Date	Topic	Presenter
1	09:00 – 12:00 Mon 20 Sep	Introduction to ICT Applications	Adrian Schofield
2	13:00 – 16:00 Mon 20 Sep	Acquiring ICT Application	Adrian Schofield
3	09:00 – 12:00 Tues 21 Sep	Choosing an Application Architecture	Adrian Schofield
4	13:00 – 16:00 Tues 21 Sep	Security, Privacy and Intellectual Property	Pria Chetty
5	09:00 – 13:00 Weds 22 Sep	Quality and Process	Adrian Schofield
6	14:00 – 16:00 Weds 22 Sep	Applications (1) e-Commerce and e-Government	Adrian Schofield
7	09:00 – 12:00 Thurs 23 Sep	Applications (2) e-Learning, e-Finance and e-Health	Adrian Schofield
8	13:00 – 16:00 Thurs 24 Sep	Skills	Adrian Schofield

### **3 Course Outcomes**

On completion of this course, participants will be able to:

- Understand the role of Moore's Law in predicting exponential growth in demand for ICT Applications.
- Understand the System Development Lifecycle (SDLC).
- Appreciate the trade-offs and choices that are to be made in the acquisition of modern ICT Applications.
- Understand the evolution of software architecture and the way that this influences decisions around the deployment of ICT Applications.
- Place issues of privacy, security and IP protection within the context of South African law.
- Understand that mature and capable processes are one of the best ways of ensuring the quality of ICT Applications
- Appreciate the key properties, similarities and differences between ICT Applications in a number of specific domains, including Commerce, Government, Education, Finance and Health.
- Understand how skills associated with the use and development of ICT Applications are organised, acquired, measured and managed.

### **4 Background Readings**

Readings will be assigned during the course

### **5 Required Readings**

Specific readings will be assigned during the course.

Lecturers / facilitators who use teaching aids or provide additional material, will distribute these notes to you as they become available. These notes should be added to your course file and included as part of your course materials.

### **6 Additional Resources**

None

### **7 Preparation Requirements**

No preparation is required in advance of the course.

Please note that tasks will be set during the course to prepare for specific sessions. These will assist you to work through the conceptual and theoretical understandings in each of the sessions and will prepare you in applying these to cases and issues.

<p>We assume that you will need to spend approximately 120 hours in total on this course. This includes preparation and reading, attendance at seminar sessions, online time, writing assignments and examinations.</p>
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### **8 Syndicates and Group Learning**

An interactive and intensive learning methodology is utilised, which involves a combination of lectures, case studies, group and individual projects. Given that many participants are active

in shaping the telecommunications sector, the P&DM endorses the “syndicate method” of teaching, which requires that some of the learning will be done in groups. This approach is designed to enable course participants to contribute to the course, bringing in their own practical experience, knowledge and expertise together with those of their peers to create a rich learning environment.

Each participant will be assigned to a syndicate group. Syndicates and group work are a vital component of the learning process and attendance at all syndicate meetings is required and compulsory.

Syndicate meetings will be organised by the group members at a time and place suitable to them in accordance with the programme’s schedule. Although the P&DM will make syndicate meeting rooms available, these meetings need not be held on campus

Problems within syndicate groups are to be reported timeously to the Academic Convenor of this course, so that steps may be taken to resolve them. Syndicates will only be able to change their syndicate group composition under exceptional circumstances, and at the sole discretion of the Academic Convenor.

## 9 Assessment

There are several components to the assessment for this course, viz:

- Individual & syndicate homework assignments - 20%
- Individual exam equivalent assignment - 80%

Individual and syndicate homework assignments, which is done in syndicate groups during the week, will be distributed and completed during the course of the week, and will count 20% towards your final mark for the course.

The individual exam-equivalent assignment will count 80% towards your final mark for the course. Your lecturers will discuss its requirements during the course of the week, and it will be distributed at the end of the course. It is due for submission by **Monday 8 November 2010**.

You will be required to submit the individual exam-equivalent assignment online via the SafeAssign feature of Ignite (<http://ignite.wits.ac.za>). Be aware that this feature performs a check on your assignment for plagiarism and copying.