

# Information Sciences Extension Studies 3 PG (7866)

## Unit Outline 2009 Semester 1

### Faculty of Information Sciences and Engineering

#### University of Canberra

*Australian Government Higher Education (CRICOS)  
Registered Provider number: #00212K*

This Unit Outline must be read in conjunction with:

- a) *Studying at the University of Canberra: A Guide to Policies and Procedures*, which sets out University-wide policies and procedures, including information on matters such as plagiarism, grade descriptors, moderation, feedback and deferred exams, and is available at <http://www.canberra.edu.au/student-services>
- b) *Guide to Student Services at the University of Canberra*, and is available at <http://www.canberra.edu.au/student-services>
- c) Any additional information specified in section 6f.

## 1. General Information

- 1a **Unit title** Information Sciences Extension Studies 3 PG
- 1b **Unit number** 7866
- 1c **Semester and year offered** Semester 1/ 2009
- 1d **Credit point value** 3cp
- 1e **Unit level** PG
- 1f **Unit Convenor**  
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## 2: Academic Content

### 2a Unit description and learning outcomes

- i. **Syllabus:** An Extension Studies unit provides postgraduate students with the opportunity to study an information sciences topic at an advanced level. The unit provides an opportunity to broaden and deepen knowledge in preparation for further advanced work in *Network and its Security*. Topics covered the basic concepts in computer networks, wired networks and wireless networks, together with their security.
- ii. **Learning Outcomes:** Outcomes from this unit include; an enhanced capability for independent work, advanced knowledge in *network and its security* and the ability to synthesise knowledge across different fields; enhanced skills to undertake an investigation of a topic including project and research design and execution, report writing and presentation skills.

### 2b Prerequisites and/or co-requisites:

It is required that a minimum average performance level of CR or better and the permission of the Dean of Faculty. Students studying for masters will normally be able to do this unit after spending at least one semester in the course.

## 3: Delivery of Unit and Timetable

### 3a Delivery mode

Information Sciences Extension Studies is a supervised project-based unit. Projects are undertaken individually and are selected by students in consultation with their supervisors, and approved by the Unit Convenor. There are no formal lectures but students are required regularly meet with their supervisors to discuss their progress from the start of the project until the final project reports are submitted. The time for regular meeting is arranged by students with their supervisors and it is every Tuesday afternoon 3:30 pm to 4:30 pm, together with other time slots when it is necessary and the students and supervisor are available. Before enrolling students are required to consult their course adviser, arrange a project with a member of academic staff (supervisor) and get the approval of the unit convenor.

### 3b Tentative Schedule of topics/lectures/tutorials/practicals/field classes by week

Week	Activities
Week 0-1	Interested students express their interest to the unit convenor and arrange a discussion, tentative research interest, and obtaining supervisor's approval for enrolment. The description of "Learn Portfolio" is distributed.
Week 1-2	Preparing and reading the appointed materials and doing some project researches for the further research plan
Week 3-4	Preparing "Learn Portfolio" and discussing with the supervisor
Week 8	Mid-semester "Learn Portfolio" on progress (or week 7 by arrangement)
Week 11	Draft "Learn Portfolio" due
Week 12	Discussion on "Learn Portfolio" and Oral Examination (20% of the whole unit)

Week 13	The final "Learn Portfolio" due at 5:00 pm on 18/05/09
Week 14	Oral Examination 9:00 a.m. for 9:30 a.m. at 11B26 on 26/05/09.

The above schedule is subject to changes by the supervisor or the unit convenor.

#### 4: Unit Resources

##### 4a Lists of required texts/readings

No particular text is set for this unit; however some reading may be advised by the supervisor

##### 4b Materials and equipment – Some RFID devices if it is necessary for the "Learn Portfolio".

##### 4c Unit website

The unit website is accessible at <http://www.ise.canberra.edu.au/un7866/>. The unit convenor will update the unit website as and when required. Students are advised to regularly check the unit website for the latest information including announcements.

#### 5: Assessment

##### 5a Assessment overview

Assessment Item (including exams held in the exam period)	Due Date of Assignments	Weighting (total to equal 100%)
"Learn Portfolio"	18/05/2009 at 17:00	80%
Oral Examination (15 mins per person)	9:30 am starting one by one and face to face at 11B26	20%

##### 5b Details of each assessment item

###### Learning Portfolio Requirements

In this unit you will work, in pairs or individual, and develop a joint learning portfolio which should contain your own reading notes, synthesis of material you have researched (web, books and articles), working, examples and observations under the following headings

###### Transducers in General – Lecture and Research Notes: (25% Marks of Learning Portfolio)

During the course of the formal lectures in this module, you should develop a set of notes on the fundamentals of transducers and their general theory of operation, functionality, specification and modeling. In particular you should research industrial applications of some of the sensors that you read about

You should augment this material from your own reading in the library, or on the web. It is not adequate to simply include printouts or photocopies from texts; you should **synthesize the material you have read and summarize it in your own words to show that you have understood it.**

###### Discussion of Network Theory and Network Security (20% Marks of Learning Portfolio)

In order to illustrate the principles of network theory and network security, you should pick a physical quantity picture that you have studied in **detail**, from the materials you read. The remainder of your portfolio will be concerned with network theory and network security and related techniques used (**you may need to read some current related articles**). At

this point you should point out any particular properties of this picture: its possible (useful), advantages and disadvantages with quantitative measurements etc

#### **Overview of Network Security (20% Marks of Learning Portfolio)**

Determine the **security plan** of your project about a network that you have chosen for which measurements and assignments are possible. Give an overview of the types of network security and measurement techniques and assignments that are used to your chosen quantity over its discussed case. The WWW should help you to find related materials but you need to make clear references. One of the highlighted item is you need to show what the parameters you are going to used for measure your network security and how to show the evidence your project is superior (or comparable) to traditional one.

#### **Details of a particular Network security (design and development) (25% Marks of Learning Portfolio)**

Having given an overview now concentrate on the operation and method of use of a particular network security. You should show how this network security works, how its behaviour can be modelled and how it is interfaced to another layer or how the design prevents from attacks or constructive faults system. Some evidences or simulations need to be demonstrated. The assignments and measureable parameters should be discussed in details.

#### **Industrial Application (10% Marks of Learning Portfolio)**

Finally you should illustrate how your chosen design is used in an industrial application or real life. It would be useful, for example, to find out how they are coupled to other similar system, if applicable.

### **5c Special assessment requirements**

To pass this unit, you must achieve at least 50% in each of the assessment items. Grades will be awarded as per the following table:

Grade	Letter Grade	Weighted Marks
High Distinction	HD	85% - 100%
Distinction	D	75% - 84%
Credit	CR	65% - 74%
Pass	P	50% - 64%
Fail	NX	0% - 49%

In the case of any assessment item that places you in jeopardy of a Fail in the whole unit, appropriate moderation procedures will be used.

**Medical certificates:** Your medical certificate must clearly state:

- That you were unfit to complete the assessment task;
- The date of the medical consultation;
- The period during which you were / are / will be unfit; and
- The severity of your illness.

#### ***Referencing requirements:***

All work quoted from other written sources should be appropriately referenced using the "author-date" (Harvard) style. This style is described in detail (including electronic sources) in the Citation Guide available at:

[http://www.canberra.edu.au/library/research-gateway/research\\_help/referencing-guides](http://www.canberra.edu.au/library/research-gateway/research_help/referencing-guides)

**Note:** Students should keep a copy of all assessment items that are submitted. If there is any doubt with regard to the requirements of any particular assessments or assessment procedure, the onus for clarifying the issue rests with the student who should contact the supervisor about the matter. Unit Convenor will also be happy to

assist in this regard. The supervisor reserves the right to question students orally on any of their submitted work

#### **5d Supplementary assessment**

To be eligible to undertake supplementary assessment in a unit, a student must:

- be enrolled in their final semester of study;
- have failed a single unit, with a final mark between 45-49% in the unit;
- have passed all other units undertaken in that semester.

The failed unit must be the final unit required to complete the academic requirements of their course.

#### **5e Text-matching software**

Students may be required to submit text-based assignments electronically to be checked for matching text. If so, instructions on how to do this and information about the process will be made available (by the supervisor) in conjunction with the first of any such assessment items.

### **6: Student Responsibility**

#### **6a Workload**

The amount of time you will need to spend on study in this Unit will depend on a number of factors including your prior knowledge, learning skill level and learning style. Nevertheless, in planning your time commitments you should note that for a 3cp Unit the total notional workload over the fifteen-week semester is assumed to be 150 hours or an average of 10 hours per week. These hours include time spent in classes. The total workload for Units of different credit point value should vary proportionally. For example, for a 6cp Unit the total notional workload over a fifteen-week semester is assumed to be 300 hours or an average of 20 hours per week.

#### **6b Special needs**

Students who need assistance in undertaking the unit because of disability or other circumstances should inform their Unit Convenor or the Disabilities Office as soon as possible so the necessary arrangements can be made

#### **6c Attendance requirements**

While there are no formal class times scheduled for this unit, students are required to regularly meet with their supervisors to discuss their progress from the start of the project until the final project reports are submitted. The times for regular meetings are arranged.

#### **6d Required IT skills**

This is to be negotiated between the supervisors, students and the Unit Convenor on a case-by-case basis.

#### **6e Costs**

No additional costs will be incurred by students that are incurred as a university student.

#### **6f Additional information**

1) Sources of other information will be provided by supervisors. Announcements posted to the unit website are deemed to have been made to all enrolled students.

Emails sent to the Unit Convenor or project supervisor do not have the effect of transferring responsibility for further action from the student.

2) Feedback on progress may be provided to students in several ways:

- Through comments by the supervisor.
- Through the unit web site – students should consult this regularly.
- In written form on your proposal project
- By email, where appropriate.
- In individual consultation during the one-on-one sessions.

3) Students with a poor command of either written or spoken English will face difficulties in this unit. Overseas students with English problems are advised to contact the Overseas Program Unit, in Student Administration. The Academic Skills Program runs Study Skills Workshops for students with study problems (including English).

4) Any student having difficulty understanding the unit outline should contact the unit convenor or supervisor for clarifications.

## **7: Student Feedback**

All students enrolled in this Unit will have an opportunity to provide anonymous feedback on the Unit at the end of the Semester via the Unit Satisfaction Survey which will be presented to you on OSIS. Your supervisor or tutor may also invite you to provide more detailed feedback through an anonymous questionnaire administered through the University's Centre for the Enhancement of Learning Teaching and Scholarship (CELTS).

## **8: Authority of this Unit Outline**

Any change to the information contained in Section 2 (Academic content), Section 3 (Delivery of Unit and timetable) and Section 5 (Assessment) of this document, will only be made by the Unit Convenor if the written agreement of staff and a majority of students has been obtained; and if written advice of the change is then forwarded to each student enrolled in the Unit at their registered term address. Any individual student who believes him/herself to be disadvantaged by a change is encouraged to discuss the matter with the Unit Convenor.