# PROPOSAL TO INTRODUCE A NEW COURSE
(formerly known as subject)

## 1.    COURSE DETAILS

**1.1    Course ID**          **COMP**

**1.2    Course name - Long**

Wireless Programming for Mobile Enterprise Applications

**1.3    Course name – Abbreviated**

Wireless Programming for Mobile Enterprise Applications

**1.4    Course Authority**                              **ext/email**

Nandan Parameswaran                          56941/paramesh@cse.unsw.edu.au

**1.5    Organisational Unit responsible for course**

**School:** Computer Science and Engineering          **Faculty:** Engineering

Academic Group Code (Faculty):          ENG
eg. Arts and Social Sciences = ARTSC

Academic Organisation Code (Owner)      COMPSC
eg. Department of French=FREN

**1.6    Justification of Proposal**

A new class of enterprise application incorporating wireless devices as clients has recently emerged as an important area of study.  These applications take advantage of  the new capabilities of the increasingly sophisticated wireless devices such as mobile phones and   bring the advantages of enterprise applications much closer to humans.  The purpose of this course is to teach the students the art of programming small devices and    cooperative problem solving techniques particularly in the context of e-commerce  enterprise  applications.

**1.7    Consultation Process**

1. Approval by the Teaching Committee, School of Computer Science and Engineering
2. Achim Hoffmann, Teaching Committee,  School of Computer Science and Engineering.

**1.8    Units of credit (UOC) Session/s offered          Hours Per Week**

| 6 | S2 | 3 hours/week |

**1.9** **Pre-requisites:** COMP9021 or equivalent.
**Co-requisites:** COMP9321 or equivalent.
**Exclusions:**

**1.10** **Proposed Entry in the Faculty Handbook** (including course description)

This course will teach programming and problem solving techniques with wireless devices such as mobile phones and wireless sensor networks in the context of enterprise applications.

Technologies for wireless devices computing – wireless device configurations and profiles, user interfaces;
Wireless devices programming – wireless application protocol, developing WML applications, middleware programming for small devices; VoiceXML applications; webservices for wireless devices; strategies for XML processing in small devices, smart client - thin client, messaging applications, personal information management and location-based services.
Sound and Game APIs, Serial communications, event driven applications. Secure networking. Wireless P2P management; Migrating Agents – Toshiba's beeagent and IBM's aglets. Wireless Enterprise Computing.
Wireless sensor Programming – interfacing with mobile devices; disaster recovery, emergency situation management.
M-commerce: Mobile security, Mobile commerce services; cooperative problem solving with wireless devices – ad hoc teams, dialogs/multilogs; case study – agent based management with wireless devices.

**1.11** **Is this course replacing an existing course?**

**YES**

**NO**         X

**1.12** ~~Undergraduate~~ / **Postgraduate** / ~~Other~~ (delete what is not applicable)

**1.13** ~~Core~~ / **Elective** (delete one)

**1.14** **Program stage**

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Stage II / Session 1, 2006.

**1.15 Program/s in which course is available**

MEngSc 8685, ME 2765, MCompSc 8680, MinfSc 8508, GradDips – 5452,5453, Ph D 1650.

**1.16 Proposed teaching methods and assessment practices**

Lectures, assignments, team projects, and final exam.

**1.17 Assessment grades to be used**

HD, DN, CR, PS, FL;

**1.18 Mode of delivery**

Internal                    X

External

Other (specify)

**1.18.1 Multi-mode Delivery Guidelines**
The following issues should be addressed in proposals for Multi-mode delivery:
- parity in admission requirements to ensure that the integrity of programs at UNSW was not compromised;
- administrative processes relating to enrolments and dealing with students overseas;
- content and standard of courses and assuring comparability with on-campus courses;
- by whom and how courses were to be delivered;
- assessment procedures; and
- availability of library resources.

**Note: The business components of off-shore proposals** are considered by the International Strategies Committee (ISC) chaired by Professor Wainwright, Deputy Vice-Chancellor (Research) whilst the Academic Board approves the academic aspects of proposals for offshore delivery of existing programs. The ISC considers (i) partnership arrangements; (ii) whether the impact on the faculty of staff going overseas has been considered; and (iii) whether appropriate steps have been taken to register the program in the country concerned.

**The Postgraduate Coursework Committee has wished to ensure that the following issues have been addressed in proposals for offshore delivery:** parity in admission requirements to ensure that the integrity of programs at UNSW is not compromised; administrative processes relating to enrolments and dealing with students overseas; content and standard of courses and assuring comparability with on-campus courses; by whom and how courses are to be delivered; assessment procedures and availability of library resources.

Proponents should contact the Office of the Deputy Vice-Chancellor (Research and International) regarding this committee.

**1.19 Information Technology Requirements for students**

Standard for students in the programs referred to in Section 1.15 above.

**1.20 Textbooks**

1. Wireless Java Programming for Enterprise Applications, Dan Harkey, Shan Appajodu, Mike Larkin, Wiley Publishing, Inc. 2002.
2. Mobile and Wireless Design Essentials - Martin Mallick,Wiley 2003.

3. Enterprise J2ME: Developing Mobile Java Applications, Michael J Yuon,   Prentice Hall 2003.
4. Wireless Java - Developing with J2ME, Jonathan Knudsen, APRESS, 2003.
5. M-Commerce: Technologies, Services and Models,  by Norman Sadeh, Wiley Publishers 2002.

**1.21    Industrial experience component**
NIL

# 2.    RESOURCE STATEMENT

**2.1    Enrolments**
Estimated or proposed enrolments for the next three years.

2003:  60

2004:   80

2005:  80

**2.2     Resource Requirements**

**Staffing Requirements:**

Hours per week

| | |
|---|---|
| 3 | **Full-time Academic     Staff** |
| 1 hour per 20 students | **Part-time Teaching Staff** |
| | **General Staff** |

| | |
|---|---|
| **Field Costs:** | NIL |
| **Studio/Laboratory Requirements:** | NIL |
| **Materials Requirements:** | NIL |
| **Equipment Costs:** | NIL |
| **Computing Requirements:** | NIL |
| **Library Requirements:** | 1 copy of each text book prescribed above. |
| **Capital Funds Requirements:** | NIL |

**2.3    Servicing Implications:  N/A**

**2.4    Teaching Arrangements:**

**YES**

**NO**          X

**2.5     Alternative Delivery Arrangements:**   N/A

**2.6     Details of Tuition Fees:**

Proposed fee:
Standard Faculty of Engineering rates for a 6 uoc PG course.

$          for non-award enrolment (local)

$          for non-award enrolment (international)

$          for course which forms part of full fee-paying program (for local students)

$          for course which forms part of full fee-paying program (for international students)

# 3. AUTHORISATION

### 3.1 University Librarian's Endorsement

I have examined the Library needs related to the above proposal and certify that existing Library holdings, staffing, services and accommodation are adequate / inadequate (delete one) to cover the demands that are inherent in it.

Appropriate arrangements for the use of digitised material to support this course have been made by the Course Authority with the University Librarian.

| Further Comments: |
|---|
| |

University Librarian
   /   /2005

### 3.2 Head of School's Approval

I have examined the resource implications of the above proposal in regard to staff, space, materials, equipment, capital funds, and computing, and certify that the School can cover the demands that are inherent in it.

| Further Comments: |
|---|
| |

Head of School
   /   /2005

### 3.3 Dean's Approval

I have examined the resource implications of the above proposal in regard to staff, space, materials, equipment, capital funds, and computing, and certify that:

3.3.1  (i)   the proposal involves no additional resources. (A statement from the Head of School explaining how this can be achieved must be provided);  or

(ii)   the proposal involves additional resources and it is proposed to redeploy existing resources within the faculty. (A statement from the Head of School explaining how this will be achieved must be provided);  or

(iii)   the proposal involves additional resources to be obtained as set out below;  or

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(iv)    the additional resources essential to bring the proposal into effect cannot be found within resources available to the faculty.

3.3.2    **Fees** (delete if not applicable):

- a fee will not be charged for this program (other than HECS)

- a fee will be charged for this program for local fee-paying students

- a fee will be charged for international students

If a fee is to be charged the Dean certifies as follows:

I have ensured that the Vice-Chancellor has been advised of the proposed fee arrangements, and note that approval of fee arrangements is needed before the new program can be implemented.

3.3.3    the proposal conforms to the University's commitment to Equal Opportunity in Education.

| Statement from Head of School on Source of Additional Resources and/or Further Comments: |
| --- |

Dean
   /   /2005