Mobile Computing - Course Outline
NWEN 404: 2011 Trimester 2

This document sets out the workload and assessment requirements for NWEN 404. It also provides contact information for staff involved in the course. If the contents of this document are altered during the course, you will be advised of the change by an announcement in lectures and/or on the course web site. A printed copy of this document is held in the School Office.

Objectives

"Have you every wondered how you can be reached on your mobile phone wherever you are?"

By the end of the course, students should: (BE graduate attributes 3(a),3(b),3(d))

1. Know how networks track mobile users and devices, i.e. the mobility management function of current and emerging networks;
2. Be able to analyze and compare the degree of granularity in which mobile user/device tracking is done;
3. Be able to apply the knowledge they have acquired to the design, operation, deployment and management of mobile/wireless communications networks;
4. Be able to relate mobility management to other relevant technologies, e.g. wireless communications (WiFi, 3G/LTE, WiMax, etc), services and applications;
5. Be aware of standardization efforts and state-of-the-art research areas being pursued by academia and industry.

Textbook

There is no specific textbook for NWEN 404. The materials covered in the course can be found in the following recommended references, along with any other publications, notes or materials required. Most (if not all) of the publications will be available online through the VUW Library website or made available on the course website for students to download.

Recommended references:

1. Ricky Y.K. Kwok and Vincent K.N. Lau, *Wireless Internet and Mobile Computing*, Wiley, 2007.
2. Azzedine Boukerche (Ed), *Handbook of algorithms for wireless networking and mobile computing*, Chapman & Hall/CRC Press, 2006.
3. Yi-Bing Lin and Ai-Chun Pang, *Wireless and Mobile All-IP Networks*, Wiley, 2005.

Lectures, Tutorials, Laboratories, and Practical work

A schedule of lecture topics, readings, and assignment due dates is available online.

Lectures for NWEN 404 are conducted on **Tue/Fri** at **4-5pm** in Cotton Building Room **CO119**.

Tutorials to be held on **Wed** at **3-4pm** in **KK203** will be used for presentation and discussion of research papers.

Assignments and Projects

(I) Technical Paper Presentation (BE graduate attributes 2(b))

Starting from Week 3, THREE students will each read a technical paper (selected from the Additional Reading list) and give a short presentation during the tutorial class on **Wed** at **3-4pm** in **KK203**. No marks will be awarded for this assignment but this is a **mandatory** assignment and failure to do this will result in a 10% deduction of the final grade. All other students are expected to be present during the presentations to ask questions and actively participate in the discussions. Note: *Students should view this assignment as training and preparation for their term paper presentation in Week 12*.

(II) Term Paper

Write a term paper that is based on one or combination of the following:
- design and validation of algorithm/protocol/scheme pertaining to mobile computing;
- performance analysis of selected mobile computing system(s) using analytical/simulation/experimental approach;
- read technical papers on related mobile computing topics and write a critique;

The entire term paper assignment will comprise the following steps:

1. Selection of term paper topic
2. Write term paper (BE graduate attributes 2(b),3(a),3(b),3(c))
3. Term paper peer review (BE graduate attributes 3(d)): each student will be tasked to review two other students' term papers and provide constructive comments to help the author revise and improve his/her term paper; a set of criteria will be provided to guide the students in the review process
4. Revise term paper taking into consideration the review feedback on the term paper (BE graduate attributes 2(b),3(d),3(e),3(f))
5. Term paper presentation (BE graduate attribute 2(b)): each student will prepare and give a short presentation on his/her term paper

Workload

In order to maintain satisfactory progress in NWEN 404, you should plan to spend an average of **10~12** hours per week on this paper. A plausible and approximate breakdown for these hours would be:
- Lectures and tutorials: 3
- Readings: 4~5
- Assignments: 3~4

School of Engineering and Computer Science

The School office is located on level three of the Cotton Building (Cotton 358).

The notice board for NWEN 404 is located on the second floor of the Cotton Building.

Staff

The course organiser and lecturer for NWEN 404 is Winston Seah. His contact details are:
- Prof Winston Seah
- Cotton 336
- +64 4 463 5233 x8493
- Winston.Seah@ecs.vuw.ac.nz

Announcements and Communication

The main means of communication outside of lectures will be the NWEN 404 web area at http://ecs.victoria.ac.nz/Courses/NWEN404_2011T2/ and the NWEN 404 class mailing list - nwen404-class@ecs.vuw.ac.nz. On the course web area you will find, among other things, this document, the lecture schedule and assignment handouts, and the NWEN 404 Forum. The forum is a web-based bulletin board system. Questions and comments can be posted to the forum, and staff will read these posts and frequently respond to them.

Assessment

Your grade for NWEN 404 will be determined based on the following assessment weightings:

Item	Weight
Term Paper	40%
Term Paper Peer Review	10%
Term Paper Presentation	10%
Technical Paper Presentation	-10% if not done.
Final Examination	40%

Term Paper Assignment (marks out of 10)		
Student ID	Presentation	Review
300058597	4.0	1.0
300089748	8.3	8.5
300122639	8.1	10.0
300140534	7.9	10.0
300141106	5.6	8.0
300141521	7.9	10.0

300146779	7.9	5.5
300146827	8.3	10.0
300148173	5.8	4.0
300150816	8.8	9.0
300154714	5.0	2.0
300225987	7.3	6.5
300239893	7.3	2.0

Tests and Exams

The timetable for final examinations will be available from the University web site and will be posted on a notice board outside the faculty office. The final examination will be three hours long. No computers, electronic calculators or similar device will be allowed in the final examination. Paper non-English to English dictionaries will be permitted. The examination period for trimester 2 is 21 Oct - 12 Nov.

Practical Work

The *tentative dates* for the term paper assignment process are (exact dates will be announced during lecture):

- Week 2 ~ 3: Selection of topic and writing 1/2 page proposal
- Week 4 ~ 7: Writing of term paper (including reading of related references, planning, writing, proofreading, etc)
- Week 7: Submission of term paper (this must be a completed paper without any missing sections or to-do items/comments) and assignment of peer reviewers
- Week 8: Peer review [Submission of **peer review report** by end of Week 8]
- Week 9~10: Revision of term paper
- Week 11: Submission of **final version of term paper**, that has been revised (if necessary) to incorporate recommendations and suggestions from reviewers
- Week 12: **Presentation of term paper** (scheduling and arrangements for presentation will be done during the lecture)

Policies and penalties for late submission:

- all students must adhere strictly to the deadlines for submission of term paper, review report and final revised version of term paper; a medical certificate is required in the case of late work due to illness.
- penalties for late submission will be as follows:
    - **term paper**: for each day late, 10% of the final (term paper) grade will be deducted;
    - **review report**: for each day late, 5% of the review report grade will be deducted;
    - **final revised version of term paper**: for each day late, 10% of the final grade will be deducted; e.g. if the term paper is submitted 3 days after the deadline, 30% of the final grade will be deducted (this does not include any deduction for late submission of the (first version) term paper, if any)

Plagiarism

Working Together and Plagiarism

We encourage you to discuss the principles of the course and assignments with other students, to help and seek help with programming details, problems involving the lab machines. However, any work you hand in must be your own work.

The School policy on Plagiarism (claiming other people's work as your own) is available from the course home page. Please read it. We will penalise anyone we find plagiarising, whether from students currently doing the course, or from other sources. Students who knowingly allow other students to copy their work may also be penalised. If you have had help from someone else (other than a tutor), it is always safe to state the help that you got. For example, if you had help from someone else in writing a component of your code, it is not plagiarism as long as you state (eg, as a comment in the code) who helped you in writing the method.

Mandatory Requirements

1. Students must submit the term paper according to the stated procedure.

Passing NWEN 404

To pass NWEN 404, a student must satisfy mandatory requirements and gain at least a **C** grade overall.

Withdrawal

The last date for withdrawal from NWEN 404 with entitlement to a refund of tuition fees is Fri 22 July 2011. The last date for withdrawal without being regarded as having failed the course is Fri 23 Sept 2011 -- though later withdrawals may be approved by the Dean in special circumstances.

Rules & Policies

Find key dates, explanations of grades and other useful information at http://www.victoria.ac.nz/home/study.

Find out about academic progress and restricted enrolment at http://www.victoria.ac.nz/home/study/academic-progress.

The University's statutes and policies are available at http://www.victoria.ac.nz/home/about/policy, except qualification statutes, which are available via the Calendar webpage at http://www.victoria.ac.nz/home/study/calendar (See Section C).

Further information about the University's academic processes can be found on the website of the Assistant Vice-Chancellor (Academic) at http://www.victoria.ac.nz/home/about/avcacademic

All students are expected to be familiar with the following regulations and policies, which are available from the school web site:

Grievances
Student and Staff Conduct
Meeting the Needs of Students with Disabilities
Student Support
Academic Integrity and Plagiarism
Dates and Deadlines including Withdrawal dates
School Laboratory Hours and Rules
Printing Allocations
Expectations of Students in ECS courses

The School of Engineering and Computer Science strives to anticipate all problems associated with its courses, laboratories and equipment. We hope you will find that your courses meet your expectations of a quality learning experience.

If you think we have overlooked something or would like to make a suggestion feel free to talk to your course organiser or lecturer.