School of
Engineering and Computer Science
Te Kura Mātai Pūkaha, Pūrorohiko

Prescription

The course introduces the fundamental topics of Mobile Computing. In particular, the course will emphasise the network and transport layers of wireless communication protocols and network infrastructure suitable for mobile personal systems (e.g. GSM, 3G, Mobile IP, etc). Key issues of mobility and disconnected operation with respect to mobile computing systems and quality of service issues in mobile personal systems will be covered and how applications handle node mobility and wireless communications will be explored.

Course learning objectives

Students who pass this course should be able to:

1. Know how networks track mobile users and devices, i.e. the mobility management function of current and emerging networks, and be able to analyze and compare the degree of granularity in which mobile user/device tracking is done; (BE graduate attributes 3(a), 3(b))
2. Be able to apply the knowledge they have acquired to the design, implementation and validation of mobility management components as part of a larger system; (BE graduate attributes 3(a), 3(b), 3(c), 3(d))
3. Be able to apply the knowledge to the operation, deployment and management of mobile/wireless communications networks and relate to other relevant technologies, e.g. location and positioning; (BE graduate attributes 3(c), 3(d), 3(e), 3(f))
4. Be aware of standardization efforts and state-of-the-art research areas being pursued by academia and industry; (BE graduate attributes 3(d))
5. Be able to communicate mobility management and related issues, problems and solutions clearly and concisely. (BE graduate attributes 2(b))

Withdrawal from Course

Withdrawal dates and process:
https://www.wgtn.ac.nz/students/study/course-additions-withdrawals

Lecturers

Winston Seah (Coordinator)

winston.seah@vuw.ac.nz 04 4635233 ext 8493

416 Alan MacDiarmid Building, Kelburn

Teaching Format

This course will be run in a **Directed Individual Study** mode. There will be no lectures or tutorials. Students will be assigned TWO papers to read per week for weeks 1 to 5 and weeks 7 to 11. There will

be TWO major assignments – (i) project and (ii) term paper.
This course lecturer is available for consultation in-person and online during the designated office hours. Students can also email the lecturer to make appointments for consultation outside the office hours. For students in Wellington, there will be a combination of in-person discussions with the course lecturer and web/internet based resources. It will also be possible to take the course entirely online for those who cannot attend on campus, with all the components provided in-person also made available online.

Student feedback

Student feedback on University courses may be found at:
www.cad.vuw.ac.nz/feedback/feedback_display.php

Dates (trimester, teaching & break dates)

- Teaching: 13 July 2020 - 18 October 2020
- Break: 17 August 2020 - 30 August 2020
- Exam period: 19 October 2020 - 25 October 2020

Class Times and Room Numbers

13 July 2020 - 16 August 2020

- **Monday** 16:10 - 17:00 – 104, Von Zedlitz, Kelburn
- **Tuesday** 16:10 - 17:00 – 104, Von Zedlitz, Kelburn
- **Wednesday** 16:10 - 17:00 – 104, Von Zedlitz, Kelburn
- **Friday** 16:10 - 17:00 – 104, Von Zedlitz, Kelburn

31 August 2020 - 18 October 2020

- **Monday** 16:10 - 17:00 – 104, Von Zedlitz, Kelburn
- **Tuesday** 16:10 - 17:00 – 104, Von Zedlitz, Kelburn
- **Wednesday** 16:10 - 17:00 – 104, Von Zedlitz, Kelburn
- **Friday** 16:10 - 17:00 – 104, Von Zedlitz, Kelburn

Set Texts and Recommended Readings

Required

There are no required texts for this offering.

Mandatory Course Requirements

In addition to achieving an overall pass mark of at least 50%, students must:

- Obtain an average of at leat 50% on the term tests
- submit the term paper according to the stated procedure, and
- attempt the project and submit the project report, to demonstrate achievement of all the CLOs of the course.

If you believe that exceptional circumstances may prevent you from meeting the mandatory course requirements, contact the Course Coordinator for advice as soon as possible.

Assessment

This course will be assessed through the following assessment:

Assessment Item	Due Date or Test Date	CLO(s)	Percentage
Project	Week 7	CLO: 2,3,4,5	40%
Term Paper	Assessment Week	CLO: 1,2,4,5	40%
Term Test 1	Week 6	CLO: 1,4,5	10%
Term Test 2	Week 11	CLO: 1,4,5	10%

Penalties

For every day late, 20% of marks obtained for the assignment/task/project will be deducted. All assignments are compulsory and students must submit a reasonable attempt. Cutoff date for submission of all term papers and project reports -- not later than 2 weeks after end of T2 Assessment Period. No submission will be accepted after this deadline.

Extensions

Requests for extension of deadline(s) must be made in writing (email) to the course coordinator, attaching any supporting document e.g. medical certificates.

Submission & Return

All work is submitted through the ECS submission system, accessible through the course web pages. Marks and comments will be returned through the ECS marking system, also available through the course web pages.

Marking Criteria

As specified in the assignment handouts.

Group Work

There will be no group work.

Peer Assessment

There will be no peer assessment.

Required Equipment

Please refer to the ECS Wiki page for NWEN 404 at https://ecs.wgtn.ac.nz/Courses/NWEN404_2020T2/.

Workload

In order to maintain satisfactory progress in NWEN 404, you should plan to spend an average of **10~11** hours per week on this paper. A plausible and approximate breakdown for these hours would be:

- Readings: 5
- Assignments: 5~6

Teaching Plan

See: https://ecs.wgtn.ac.nz/Courses/NWEN404_2020T2/LectureSchedule

Communication of Additional Information

Please refer to the ECS Wiki page for NWEN 404 at https://ecs.wgtn.ac.nz/Courses/NWEN404_2020T2/.

Links to General Course Information

- Academic Integrity and Plagiarism: https://www.wgtn.ac.nz/students/study/exams/integrity-plagiarism
- Academic Progress: https://www.wgtn.ac.nz/students/study/progress/academic-progess (including restrictions and non-engagement)
- Dates and deadlines: https://www.wgtn.ac.nz/students/study/dates
- Grades: https://www.wgtn.ac.nz/students/study/progress/grades
- Special passes: Refer to the Assessment Handbook, at https://www.wgtn.ac.nz/documents/policy/staff-policy/assessment-handbook.pdf
- Statutes and policies, e.g. Student Conduct Statute: https://www.wgtn.ac.nz/about/governance/strategy
- Student support: https://www.wgtn.ac.nz/students/support
- Students with disabilities: https://www.wgtn.ac.nz/st_services/disability/
- Student Charter: https://www.wgtn.ac.nz/learning-teaching/learning-partnerships/student-charter
- Terms and Conditions: https://www.wgtn.ac.nz/study/apply-enrol/terms-conditions/student-contract
- Turnitin: http://www.cad.vuw.ac.nz/wiki/index.php/Turnitin
- University structure: https://www.wgtn.ac.nz/about/governance/structure
- VUWSA: http://www.vuwsa.org.nz

Offering CRN: 18605

Points: 15
Prerequisites: NWEN 302 and 30 further 300-level pts from (COMP, ECEN, NWEN, SWEN)
Duration: 13 July 2020 - 25 October 2020
Starts: Trimester 2
Campus: Kelburn