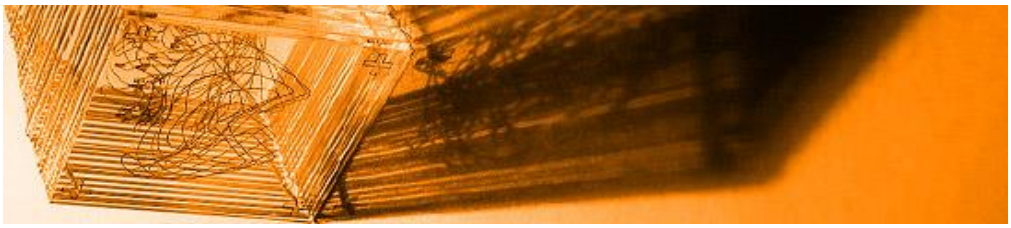
TE WHARE WĀNANGA O TE ŪPOKO O TE IKA A MĀUI
VICTORIA
UNIVERSITY OF WELLINGTON

FACULTY OF ARCHITECTURE & DESIGN
Te Wahanga Waihanga-Hoahoa



MDDN412

INTERACTION DESIGN

Course Outline Trimester 2, 2014

GENERAL

Trimester 2; 30 points

ASSESSMENT

100% internal by assignment
Note: Any hand-in dates scheduled in the exam period are tentative until the official exam timetable is available.

CLASS TIMES AND LOCATIONS

LECTURES:	Tuesday	10:00 – 11:00	Room: WG 2.01
STUDIO:	Tuesday	11:00 – 12:50	Room: WG 2.01
	Friday	10:00 – 12:50	Room: WG 2.01

FINAL ASSESSMENT: Will be held in the Trimester Two examination period 24 October – 15 November

COORDINATOR

Coordinator

Name:	*Kah Chan*
Room:	*WG4.07*
Phone:	*463-6403*
Office Hours:	*By appointment*
Email:	*kah.chan@vuw.ac.nz*
Web(optional):	*kahpow.co.nz*

For Tutor details please visit the course blog via: blackboard.vuw.ac.nz

COMMUNICATION OF ADDITIONAL INFORMATION

Any changes or additions to this Course Outline will be discussed and agreed with the class, and conveyed via email or through the course blog on the School of Design Teaching and Learning website: blackboard.vuw.ac.nz

PRESCRIPTION

Students will gain advanced level experience with newly emerging interaction design techniques: computer vision, spatial design, user focused generative feedback and advanced physical computing. An emphasis will be placed on experimentation and pushing the boundaries of the status quo of this discipline.

COURSE CONTENT

Experimental Interaction Design – *defining new languages*.

Human-computer interaction paradigms are rapidly moving past the keyboard and mouse. Technical innovations have given us near ubiquitous touch screens, gestural devices and even biometric feedback devices. These innovations tend to come with their own inherent communication language, which may or may not be explicit within the interactions. This course aims to analyse new interaction paradigms that are designed with the user and task in mind – are there specific cultural, social, functional and physical aspects that have to be considered, and what are the implications of these different combinations?

MDDN415 focuses simultaneously on creating innovative and experimental HCI methods; and students will be committed to conducting rigorous user tests as part of the evaluation and iteration of the designed methods. Utilizing methodologies from media design, user experience design, industrial design, ergonomics and psychology, this course will explore conceptual and technical user-centric interfaces. Students are encouraged to break from established traditions, and attempt experimental approaches to redefine how we communicate with our technologies.

COURSE LEARNING OBJECTIVES

Students who pass this course will be able to:

1. Develop and execute an effective strategy towards creating innovative human-computer interaction concepts and devices;
2. be familiar and capable of working within a multidisciplinary group context;
3. be active and responsible members of the design profession, demonstrating leadership within multidisciplinary contexts;
4. be committed to an ongoing engagement with the rapid (r)evolution of HCI paradigms through self-driven resourcefulness in growing as a designer;
5. be able to create and convincingly communicate design concepts in written (academic or otherwise) and visual form (static and interactive; digital and physical) with clarity and insight;
6. be able to critically evaluate the design processes and outcomes of interaction design.

TEACHING FORMAT

This course will be delivered in a studio/seminar format, where review of student work week-to-week is the primary form of delivery for the course. This will also include formal presentations to internal and external parties at regular intervals of their progress. This is a tightly packed course, so any absences could potentially be a large setback. Any absences should be communicated to the course coordinator via e-mail prior to the absence whenever possible.

There are two projects, one individual project and one group project. The group project is worth 50% of the overall course grade, where the assessment is split into a 20% group grade, and a 30% individual grade.

Additionally, students may seek assistance from the course coordinator and/or tutors during office hours or by making appointments.

All course materials, project descriptions, important dates, reference materials and required readings will be available on the course blog, located on the School of Design Teaching and Learning website, see: blackboard.vuw.ac.nz

MANDATORY COURSE REQUIREMENTS

There are no specific mandatory course requirements other than those listed under Assessment.

WORKLOAD

Attendance and participation is an important aspect of the learning process, and you are required to attend all lectures and tutorials. Typically: 30 pt course: 20 hrs/week in teaching weeks + 60 hours total in other periods

If extraordinary circumstances arises that require you to be absent from some class sessions, you should discuss the situation with the Course Coordinator as soon as possible.

You should expect to spend around 300 hours (the minimum expected workload is 10 hours of *work* per point.) on this course, including both scheduled class time and independent study. Typically this involves around 18-24 hours per week during the 12 teaching weeks, with the balance during the mid-trimester break, study week, and examination period. *Other suggested guidelines can be found in the Assessment Handbook.*

https://intranet.victoria.ac.nz/academic/staff-resources/assessment.aspx

Please check out the link below with information on Studio Courses:

www.victoria.ac.nz/fad/faculty-administration/current-students#studioculturepolicy

Students with course timetable clashes are responsible for discussing these with their Course Coordinators. Students who then choose to remain enrolled in such courses must recognise that it is their sole responsibility to seek information from peers, Blackboard and other sources, and catch up on course material they may miss because of clashes.

ASSESSMENT

Click, click, BOOM. (September 9th, 40%)

Your challenge is to design a new piece of hardware for an existing digital interaction. For example, imagine designing a new peripheral for controlling your browser window. What are some of the actions that this peripheral has to be able to do?

You begin by describing a user, then abstracting the functions that the digital interface has, selecting a task that the interface supports, then designing a physical interaction that drives these task-specific functions for your user.

This new hardware should connect to a computer or mobile device wirelessly (either via Wi-Fi or Bluetooth), be constructed out of CAD technology (making it easily reproducible), and preferably be rechargeable.

1. Experimental interface design (hardware) for an existing digital interaction paradigm.
2. Overall weighting: 40%
3. Concepts and progress documentation (user-tests, concept sketches, images of physical prototypes, etc) and in-class participation (5%)
4. Concepts and technology presentation: July 25th; Interim presentation: August 15th (10%); Final submission: September 9th (25%).
5. This assignment focuses on the following learning objectives:
    a. Develop and execute an effective strategy towards creating multiple human-computer interaction concepts and devices;
    b. be committed to an ongoing engagement with the rapid (r)evolution of HCI paradigms through self-driven resourcefulness in growing as a designer;
    c. be able to create and convincingly communicate design concepts in written (academic or otherwise) and visual form (static and interactive; digital and physical) with clarity and insight;
    d. be able to critically evaluate the design processes and outcomes of interaction design.

On-screen; off-screen. (October 17th, 50%)

Your next challenge is to refine your new piece of hardware from the previous project, then design a completely new digital interaction for it. For example, imagine redesigning a digital interface to replace a mouse and keyboard. What might that look like? What are some of the other tasks that you can do with a mouse and keyboard?

You once again begin by describing a user, then abstracting the functions that your physical interface is capable of, selecting a new task that the physical interface supports, then designing a digital interaction that takes full advantage of these task-specific functions for your user.

This new software should be based on a computer or mobile device.

1. Refined digital interface built for the physical interaction design from P1.
2. Overall weighting: 50%
3. Concepts and progress documentation (user-tests, concept sketches, images of physical prototypes, etc) and in-class participation (5%)
4. Concepts and user flow presentation: September 19th; User tests presentation: October 3rd (10%); Final submission: October 17th (35%).
5. This assignment focuses on the following learning objectives:
    a. Develop and execute an effective strategy towards creating multiple human-computer interaction concepts and devices;
    b. be familiar and capable of working within a multidisciplinary group context;
    c. be active and responsible members of the design profession, demonstrating leadership within multidisciplinary contexts;
    d. be committed to an ongoing engagement with the rapid (r)evolution of HCI paradigms through self-driven resourcefulness in growing as a designer;
    e. be able to create and convincingly communicate design concepts in written (academic or otherwise) and visual form (static and interactive; digital and physical) with clarity and insight;
    f. be able to critically evaluate the design processes and outcomes of interaction design.

#projectpictures (October 31st, 10%) - TBC

Publication of your work is extremely important. As you continue to become designers and researchers in your own right, it is a crucial part of your development to regularly document your work with the intention of sharing your processes, and in turn contributing your findings back and receiving feedback from the wider community.

Documenting your trials and tribulations, sharing your paths to success, and articulating your developed projects will be the core part of this over-arching project throughout the trimester.

1. Full documentation of both projects for publication (online videos, print quality images, description of product)
2. Overall weighting: 10%
3. Final submission: October 31st (10%). TBC
4. This assignment focuses on the following learning objectives:
    a. be committed to an ongoing engagement with the rapid (r)evolution of HCI paradigms through self-driven resourcefulness in growing as a designer;
    b. be able to create and convincingly communicate design concepts in written (academic or otherwise) and visual form (static and interactive; digital and physical) with clarity and insight;
    c. be able to critically evaluate the design processes and outcomes of interaction design.

The specifications for images are:

1. Always think of print (e.g. A4 print quality is 3500px x 2400px)
2. Watermark your images with a small VUW logo (available on the Resources drive or on request)
3. When published, caption images in this format:
    a. Your Name, (Year), Project Name, for MDDN415: Interaction Design, School of Design, Victoria University of Wellington.

The specifications for the videos are:

1. Minimum resolution of the video is to be 1280x720px (720p is the lower end of web-ready high-definition video resolutions), compressed using the H.264 codec, and exported in the QuickTime file (.mov) format. Higher resolution should always be in the 16:9 ratio.
2. If you did not create the audio yourself, the music/audio has to be either appropriately accredited through Creative Commons or Public Domain audio, or you have acquired rights for educational/commercial reproduction.
3. Credits should be added at the end of the video, and include:
    - Name of student
    - Name of project
    - Year of work
    - Victoria University of Wellington, School of Design
    - Victoria University logo (available on the Resources drive or on request)
    - Appropriate audio accreditation
    - Anyone who has helped in any way

Assessment items and workload per item		**Due**	**%**	**CLO(s)**
1	Click, click, BOOM	September 9th	40%	1, 4, 5, 6
2	On-screen; off-screen	Oct 17th	50%	1, 2, 3, 4, 5, 6
3	*#projectpictures*	Oct 31st TBC	10%	4, 5, 6

The School has a long tradition of providing *critical review* of student work as it progresses especially in design projects. For further information please refer to the Website below:

www.victoria.ac.nz/fad/faculty-administration/current-students/faqs#criticalreview

All grades posted during this course are only provisional results until confirmed by the School Examiners Committee which meets after the examination period.

Note: Victoria's grading system has been changed for 2014 with the introduction of a new C- grade.
http://www.victoria.ac.nz/students/study/progress/grades

SUBMISSION AND RETURN OF WORK

Each student is responsible for ensuring their work is submitted to their Course Tutor or Course Coordinator on time and in the required format. This work should as far as practical be exhibition and publication ready at the point of submission.

Work submitted late must be submitted to the Course Coordinator. Late submissions will be penalised as set out below, unless an extension is approved by the Course Coordinator.

EXTENSIONS

In the event of illness or other extraordinary circumstances that prevent you from submitting and/or presenting a piece of work on time, or that you feel adversely affect the quality of the work you submit, it is important that you discuss your circumstances with the Course Coordinator as soon as possible so that appropriate arrangements may be made. You should complete an Application for Extension form (available from the Faculty Office) for the Course Coordinator to approve. You will also need to provide suitable evidence of your illness or other circumstances. In an emergency, or if you are unable to contact the Course Coordinator, you should advise the Faculty Office of your situation.

PENALTIES

If no extension has been approved, the following penalties will be applied:

- Failure to personally present work at any scheduled graded review will result in an automatic failing grade of E (maximum mark of 39%) for the work being reviewed;
- Work submitted late will receive a failing grade of E (maximum mark of 39%);
- Any work not submitted within 5 working days of the due date will be recorded as a non-submission (0%).

REQUIRED MATERIALS AND EQUIPMENT

Students will need to provide all materials and equipment as necessary for the completion of required work:

1. Sketchbooks
2. Pen/Paper
3. Hard drive (preferred, not obligatory)
4. Laptop (preferred, not obligatory)
5. Camera (preferred, but we have available resources too)

Students will also require various electronics to build hardware prototypes (the Freetronics Arduino kit is an option), and assorted material for physical prototyping.
Please check the website link below for the standard requirements:
www.victoria.ac.nz/fad/faculty-administration/current-students/faqs#materialsandequipment

SET TEXTS

None

RECOMMENDED READING

Fogg, B. J. (2003). *Persuasive Technology: using computers to change what we think and do*. San Fransisco: Morgan Kaufmann Publishers.

Koster, R. (2006). *A Theory of Fun for Game Design*. Scottsdale, Arizona: Paraglyph Press.

Norman, D. A. (1988). *The psychology of everyday things*. New York: Basic Books.

Rogers, Y. (2011). *Interaction design: beyond human-computer interaction* (3rd ed.). Chichester, West Sussex, U.K: Wiley.

Rubin, J. (1994). *Handbook of usability testing*. New York: Wiley.

Schell, J. (2008). *The Art of Game Design: a book of lenses*. Burlington, Massachusetts: Morgan Kaufmann Publishers.

Swan, M. (2012). Sensor Mania! The Internet of Things, Wearable Computing, Objective Metrics, and the Quantified Self 2.0. *Journal of Sensor and Actuator Networks*, *1*(3), 217–253. doi:10.3390/jsan1030217

Victor, B. (2011, November 8). A Brief Rant on the Future of Interaction Design. *WorryDream*. Retrieved from http://worrydream.com/ABriefRantOnTheFutureOfInteractionDesign/

Waller, S., Bradley, M., Hosking, I., & Clarkson, P. J. (2013). Making the case for inclusive design. *Applied Ergonomics*. doi:10.1016/j.apergo.2013.03.012

SCHEDULE OF SESSIONS

Week **month**	**day**	**date**	**item**	**location**	**time**	**Comments**
Week 29 July	M	14				**Trimester 2 begins**
	TU	15				
	W	16				
	TH	17				
	F	18				
Week 30 July	M	21				
	TU	22	Seminar	WG2.01	10:00 – 13:00	
	W	23				
	TH	24				
	F	25	*P1: Concepts and technology presentation*	WG2.01	10:00 – 13:00	***This is the last date you can withdraw from a Tri 2 course with a full refund.***
Week 31 July/August	M	28				
	TU	29	Seminar	WG2.01	10:00 – 13:00	
	W	30				
	TH	31				
	F	1	Seminar	WG2.01	10:00 – 13:00	
Week 32 August	M	4				
	TU	5	Seminar	WG2.01	10:00 – 13:00	
	W	6				
	TH	7				
	F	8	Seminar	WG2.01	10:00 – 13:00	
Week 33 August	M	11				
	TU	12	Seminar	WG2.01	10:00 – 13:00	
	W	13				
	TH	14				

	F	15	*P1: Interim presentation: (10%)*	WG2.01	10:00 – 13:00	
Week 34 August	M	18				
	TU	19		WG2.01	10:00 – 13:00	
	W	20				
	TH	21				
	F	22	Seminar	WG2.01	10:00 – 13:00	
Week 35 August	M	25				**Mid-trimester break**
	TU	26				
	W	27				
	TH	28				
	F	29				
Week 36 September	M	1				
	TU	2				
	W	3				
	TH	4				
	F	5				**Mid-trimester break ends**
Week 37 September	M	8				
	TU	9	*P1: Final submission:(30%)*	WG2.01	10:00 – 13:00	
	W	10				
	TH	11				
	F	12	Seminar	WG2.01	10:00 – 13:00	
Week 38 September	M	15				
	TU	16	Seminar	WG2.01	10:00 – 13:00	
	W	17				
	TH	18				
	F	19	*P2: Concepts and user flow presentation*	WG2.01	10:00 – 13:00	
Week 39 September	M	22				
	TU	23	Seminar	WG2.01	10:00 – 13:00	
	W	24				
	TH	25				
	F	26	Seminar	WG2.01	10:00 – 13:00	***After this date the Associate Dean's approval is required for withdrawal from Tri 2 Courses.***
Week 40 September/ October	M	29				
	TU	30	Seminar	WG2.01	10:00 – 13:00	
	W	1				
	TH	2				
	F	3	*P2: User tests presentation: (10%)*	WG2.01	10:00 – 13:00	
Week 41 October	M	6				
	TU	7	Seminar	WG2.01	10:00 – 13:00	
	W	8				
	TH	9				
	F	10		WG2.01	10:00 – 13:00	
Week 42 October	M	13				
	TU	14	Seminar	WG2.01	10:00 – 13:00	
	W	15				
	TH	16				
	F	17	*P2: Final presentation: (40%)*	WG2.01	10:00 – 13:00	
Week 43 October	M	20				**Study/Examination Period**
	TU	21				
	W	22				
	TH	23				
	F	24				**Examination Period**
Week 44 October	M	27				**Labour Day – Public Holiday**
	TU	28				
	W	29				
	TH	30				
	F	31	*P3: Final submission: (10%)*			To be confirmed

Week 45 November	M	3				
	TU	4				
	W	5				
	TH	6				
	F	7				
Week 46 November	M	10				
	TU	11				
	W	12				
	TH	13				
	F	14				
	S	15				**Examination period ends**

CLASS REPRESENTATIVES

The Faculty of Architecture and Design operates a system of Class Representatives in 100-level courses, and Year Representatives in each of the professional disciplines. Student Representatives are elected during a class session in the first week of teaching. All Student Representatives will be listed on the STUDiO notice board in the Atrium, and the relevant Representatives are also listed on studio notice boards. Student Representatives have a role in liaising between staff and students to represent the interests of students to the academic staff, and also in providing students with a communication channel to STUDiO and the Student Representation organiser.

Class Rep name and contact details:

STUDENT FEEDBACK

The Course Coordinator will discuss feedback from previous students at an appropriate time during the course.

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

OTHER IMPORTANT INFORMATION

The information above is specific to this course. There is other important information that students must familiarise themselves with, including:

- Academic Integrity and Plagiarism: www.victoria.ac.nz/home/study/plagiarism
- Aegrotats: www.victoria.ac.nz/home/about/avcacademic/publications2#aegrotats
- Academic Progress: www.victoria.ac.nz/home/study/academic-progress (including restrictions and non-engagement)
- Dates and deadlines: www.victoria.ac.nz/home/study/dates
- Faculty Current Students site: www.victoria.ac.nz/fad/faculty-administration/current-students
- Grades: http://www.victoria.ac.nz/students/study/progress/grades
- Resolving academic issues: www.victoria.ac.nz/home/about/avcacademic/publications2#grievances
- Special passes: www.victoria.ac.nz/home/about/avcacademic/publications2#specialpass
- Statutes and policies including the Student Conduct Statute: www.victoria.ac.nz/home/about/policy
- Student support: www.victoria.ac.nz/home/viclife/studentservice
- Students with disabilities: www.victoria.ac.nz/st_services/disability
- Student Charter: www.victoria.ac.nz/home/viclife/student-charter
- Student Contract: www.victoria.ac.nz/home/admisenrol/enrol/studentcontract
- Turnitin: www.cad.vuw.ac.nz/wiki/index.php/Turnitin
- University structure: www.victoria.ac.nz/home/about
- VUWSA: www.vuwsa.org.nz