



## TE KŌKĪ NEW ZEALAND SCHOOL OF MUSIC

### CMPO 381 *Interface Design for Live Electronics* **20 POINTS**

#### TRIMESTER 2 2015

### Important dates

**Trimester dates:** 13 July to 15 November 2015

**Teaching dates:** 13 July to 16 October 2015

**Mid-trimester break:** 24 August to 6 September 2015

**Last assessment item due:** 27 Oct 2015

**Study period:** 19 to 23 October 2015

**Examination/Assessment Period:** 23 October to 14 November 2015

### Withdrawal dates:

Refer to [www.victoria.ac.nz/students/study/withdrawals-refunds](http://www.victoria.ac.nz/students/study/withdrawals-refunds). If you cannot complete an assignment, or sit a test or examination, refer to [www.victoria.ac.nz/students/study/exams/aegrotats](http://www.victoria.ac.nz/students/study/exams/aegrotats).

### Class times and locations

Monday, 2:10pm–3:00pm (Room MS112: Sonic Arts Lab)

Friday, 1:10pm–3:00pm (Room MS112: Sonic Arts Lab)

Tutorials commence in the second week of the trimester. Groups will be posted on Blackboard and/or on the noticeboard outside the office on the NZSM Kelburn Campus at the start of Week 2. Tutorials will be held in Room MS112, the Sonic Arts Lab.

### Names and contact details

**Course Coordinator:** Jim Murphy

**Contact phone:** 463 9562

**Email:** jim.murphy@nzsm.ac.nz

**Office located at:** Room 202, 92 Farlie Terrace, Kelburn Campus

**Office hour:** Tuesday, 9:00am–10:00am

**Tutor:** Mo Zareei **Email:** mohammadhossein.zareei@ecs.vuw.ac.nz

**Programme Administrator:** Fiona Steedman

**Email:** fiona.steedman@nzsm.ac.nz

## Communication of additional information

Official notices issued after the course has commenced will be posted on the board outside the NZSM office on the Kelburn Campus. Notices concerning a number of courses will also be posted on Blackboard. The Course Coordinator will specify if Blackboard will be used.

## Prescription

Designing and building a custom digital interface for musical expression. No prior experience in electronic engineering is expected.

## Course content

This course focuses on the creation of an Arduino-based input device used to control computer-based music software. Lectures focus on the technical and musical decisions required to design and build such a device. A detailed lecture-by-lecture breakdown of the course content is available in the attached syllabus.

## Course learning objectives (CLOs)

Students successfully completing this course will be able to:

1. demonstrate an understanding of the context and history of live electronics
2. plan, design, and implement a custom digital interface for musical expression
3. give a performance using the custom digital interface.

These learning objectives contribute to the NZSM Graduate Attributes. For a full list, please see [www.nzsm.ac.nz/study-careers/graduate-attributes](http://www.nzsm.ac.nz/study-careers/graduate-attributes)

## Teaching format

This course comprises one 1-hour lecture and one 2-hour lecture per week.  
See attached course syllabus for more information.

## Mandatory course requirements

There are no mandatory course requirements.

## Workload

A 20-point one-trimester course should require at least 200 hours' work (including class time). This means that during the trimester, the mid-trimester break and study week you should be prepared to spend, on average, 13 hours per week involved in activities such as attending classes, reading, listening to recommended recordings and preparing assignments. The estimated breakdown of your workload is as follows: attending classes, 54 hours; completing minor assignments, 30 hours; completing major assignments, 70 hours; completing project proposal, 30 hours.

## Assessment

### Assessment details for this offering

Assessment items and workload per item		%	CLO(s)	Due date
1	In-class presentation: History of NIME/Controllers. 10- to 12-minute presentation.	10%	1	24 Jul 2015
2	Project Proposal. 1000 words maximum, including a detailed project proposal and completion timeline.	10%	2	7 Sep 2015
3	Online project review (meeting and documentation of project status, 5–10 minutes and 1000 words maximum).	10%	1	9 Oct 2015
4	4 short assignments. These assignments consist of 1- to 2-minute audio clips or live in-class performances, focusing on technology presented and disseminated in lectures.	30% (7.5% each)	2	31 July 2015 10 Aug 2015 11 Sep 2015 2 Oct 2015
5	Short performance project. This project focuses on the performance use of the interface designed and built during this course.	20%	3	16 Oct 2015
6	Project report (1000 words maximum, detailing the design of the new interface).	20%	2	27 Oct 2015

### Marking criteria

Please see the attached syllabus for details (also provided on Blackboard).

### Submission and return of work

Assignments should be deposited on Blackboard or in Jim Murphy's mailbox, NZSM (Kelburn Campus).

Marked assignments will be returned via Blackboard or to the student pigeonholes, NZSM (Kelburn Campus).

Assignments will normally be marked and returned within three weeks of submission.

### Extensions and penalties

#### Extensions

Students, who for exceptional reasons can justify an extension for an item of assessment, must apply to the Course Coordinator *before* the due date. Please note that no extensions can be granted for tutorial assignments.

#### Penalties

Assignments must be submitted by the due dates. In fairness to other students, unless a medical certificate is produced, assessment submitted after 5:00pm on the due date will be subject to a 5% demerit on your grade, increasing by 5% each further working day it is overdue.

## Materials and equipment and/or additional expenses

Every student should have a computer to do this course. You will need to download free software, which will happen on the first day of class. It is possible to use the computers in LS2 or the Sonic Arts Lab, in order to do assignments, if you do not have your own computer.

Each student will also need to buy custom electronic parts to build their own Digital Musical Instrument. The average cost for this is around 200–300 NZD, based on what you plan to build for yourself. Details regarding the purchasing of electronic parts will be discussed in depth during lectures; parts need not be purchased until after 7 September.

## Set texts

No textbooks or student notes are required in this course; all reference material is provided via PDF-format lecture notes made available on Blackboard. Additional useful reading material may be found below, in the Recommended Reading section.

## Recommended reading

O'Sullivan, D. and Igoe, T. *Physical Computing*. Boston: Thomson Course Technology, 2004.  
(DO NOT BUY: In the Victoria University Central Library on course reserve.)

Martin Evans, Joshua Noble, Jordan Hochenbaum. *Arduino In Action*. Manning Publications, 2013.  
(DO NOT BUY: In the Victoria University Central Library on course reserve.)

Collins, Nick. *Introduction to Computer Music*. Wiley, March 2010.  
(DO NOT BUY: In the Victoria University Central Library on course reserve.)

Selected Articles from *Proceedings of New Interfaces for Musical Expression (NIME)*, accessible via [www.nime.org/archives/](http://www.nime.org/archives/).

Selected Articles from [www.CreativeApplications.Net](http://www.CreativeApplications.Net).

## Class representative

The class representative provides a useful way to communicate feedback to the teaching staff during the course. A class representative will be selected at the first lecture of the course. Students may like to write the Class Rep's name and details in this box:

Class Rep name and contact details:
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## Student feedback

This course is being taught by a new lecturer. Prior feedback on the course is not applicable. Student feedback on University courses may be found at [www.cad.vuw.ac.nz/feedback/feedback\\_display.php](http://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/students/study/exams/integrity-plagiarism](http://www.victoria.ac.nz/students/study/exams/integrity-plagiarism)
- Aegrotats: [www.victoria.ac.nz/students/study/exams/aegrotats](http://www.victoria.ac.nz/students/study/exams/aegrotats)
- Academic Progress: [www.victoria.ac.nz/students/study/progress/academic-progress](http://www.victoria.ac.nz/students/study/progress/academic-progress) (including restrictions and non-engagement)
- Dates and deadlines: [www.victoria.ac.nz/students/study/dates](http://www.victoria.ac.nz/students/study/dates)
- FHSS Student and Academic Services Office: [www.victoria.ac.nz/fhss/student-admin](http://www.victoria.ac.nz/fhss/student-admin)
- Grades: [www.victoria.ac.nz/students/study/progress/grades](http://www.victoria.ac.nz/students/study/progress/grades)
- Resolving academic issues: [www.victoria.ac.nz/about/governance/dvc-academic/publications](http://www.victoria.ac.nz/about/governance/dvc-academic/publications)
- Special passes: [www.victoria.ac.nz/about/governance/dvc-academic/publications](http://www.victoria.ac.nz/about/governance/dvc-academic/publications)
- Statutes and policies, including the Student Conduct Statute: [www.victoria.ac.nz/about/governance/strategy](http://www.victoria.ac.nz/about/governance/strategy)
- Student support: [www.victoria.ac.nz/students/support](http://www.victoria.ac.nz/students/support)
- Students with disabilities: [www.victoria.ac.nz/st\\_services/disability](http://www.victoria.ac.nz/st_services/disability)
- Student Charter: [www.victoria.ac.nz/learning-teaching/learning-partnerships/student-charter](http://www.victoria.ac.nz/learning-teaching/learning-partnerships/student-charter)
- Student Contract: [www.victoria.ac.nz/study/apply-enrol/terms-conditions/student-contract](http://www.victoria.ac.nz/study/apply-enrol/terms-conditions/student-contract)
- Subject Librarians: <http://library.victoria.ac.nz/library-v2/find-your-subject-librarian>
- Turnitin: [www.cad.vuw.ac.nz/wiki/index.php/Turnitin](http://www.cad.vuw.ac.nz/wiki/index.php/Turnitin)
- University structure: [www.victoria.ac.nz/about/governance/structure](http://www.victoria.ac.nz/about/governance/structure)
- Victoria graduate profile: [www.victoria.ac.nz/learning-teaching/learning-partnerships/graduate-profile](http://www.victoria.ac.nz/learning-teaching/learning-partnerships/graduate-profile)
- VUWSA: [www.vuwsa.org.nz](http://www.vuwsa.org.nz)
- NZSM Student Handbook: [www.nzsm.ac.nz/student-zone/student-guides](http://www.nzsm.ac.nz/student-zone/student-guides)
- Scholarships and prizes relevant to NZSM students: [www.nzsm.ac.nz/study-careers/scholarships-and-prizes](http://www.nzsm.ac.nz/study-careers/scholarships-and-prizes)

## Events

Regular events are held during trimesters 1 & 2 at all NZSM campuses. These events are for the benefit of all students, and include performances, masterclasses, special lectures and workshops given by staff, students and visiting artists. All students are expected to keep time free to attend the weekly lunchtime concert on Friday at 12:10pm, along with other events as required.

Students should sign up to the **Dawn Chorus**, the NZSM's events e-newsletter, by emailing [events@nzsm.ac.nz](mailto:events@nzsm.ac.nz) with 'subscribe dawn chorus' in the subject line.

**Website:** [www.nzsm.ac.nz/events](http://www.nzsm.ac.nz/events)