ARTS&SCI / ISCI 3IE1, Interdisciplinary Experiences:
Electronics for the Rest of Us!

Course Description
To most of us, the workings of the electronic devices that accompany (and enable!) our
everyday lives often seem mysterious and opaque -- an area of concern for only the most
qualified ‘techies’. Though a basic understanding of electronics and programming is generally
viewed as a core competency for 21st century success, these topics remain intimidating, as they
often appear inaccessible to many students from non-technical backgrounds.

This doesn’t need to be the case.
The development and widespread availability of inexpensive, user-friendly and well-documented
electronics -- such as the Arduino -- has made learning and developing these skills accessible
(and dare we say, even fun) for students of every age. Such resources now make it possible for
even the most inexperienced student to create with electronics, while simultaneously reaping
the educational benefits associated with the application of logic and rules to make cool stuff.

This three-day workshop-style course aims to:
● Introduce students to the world of simple electronics and programming;
● Give students an opportunity to develop their skills by designing and building a functional
electronic device; and,
● Allow them to apply their skills and creativity in the process of creating an original device.

Course Details:
Instructors: Jay Brodeur, John Fink, Matt McCollow
Offering: Winter (Term 2), 2016/17
Schedule: The course will take place over the following three-day period:
Thursday, 26-Jan 1900-2100 SCDS (Mills Library)
Friday, 27-Jan 1730-2100 ThinK Space (Thode Library)
Saturday, 28-Jan 1000-1600 SCDS (Mills Library)
Location:
Class Size:
● Minimum class size: 6
● Maximum class size: 15

Required Costs:
There are no required costs for this course – all required materials will be loaned to you at the
outset of the course, with the agreement that you return all assigned components at its
conclusion.
Assessment and Course Deliverables:
The class will be graded on a pass/fail basis. There will be a total of three evaluation components; all components must be passed in order to pass the course.

- Students will work alongside the instructors to create their first working device.
- Following the completion of the working deliverable, students will work in groups to creatively modify or augment their original device. At the end of the course, groups will present their final device, and discuss the challenges they faced in its development. Outcomes of this activity will be evaluated according to the creativity of the modification, and ingenuity applied to create it.
- As a means of documenting progress and reflecting on the experience, groups will document their project, and upload their working code to Github. Each group will complete a very short blog post, which will be displayed publicly on the Sherman Centre for Digital Scholarship website. The post will provide a means of documenting their final products, and will allow groups to reflect on their work and learning in the course. Blog posts will be evaluated according to completeness and depth of reflection.