Course Title	:	Studio Practice: Electronic Art
Course Code	:	VIS 357
Recommended Study Year	:	2nd and 3rd years
No. of Credits/Term	:	3
Mode of Tuition	:	Studio-based, guided practice
Class Contact Hours	:	3 hours per week Category in
Major Programme	:	Programme Elective
Prerequisite(s)	:	N/A
Co-requisite(s)	:	N/A
Restriction(s)	:	Maximum enrolment - 15 students
Exemption Requirement(s)	:	N/A

Brief Course Description

Putting Electronics to Work to *Using Electronics to Make Art!*

Electronics are everywhere nowadays, as ubiquitous as paper is. Cell phones, computers, watches, dishwashers, fans, Octopus cards, ID cards… tons of examples that could be mentioned here. This course is a hands-on introduction to electronics in art practice, which provides the opportunity to engage with electronics in an alternative way, enabling students to dig into different creative possibilities afforded by basic electronic combinations. Students and I will work/play together with several integrated circuits to make LEDs blink in different patterns, or have sensors trigger the operation of motors.

Syllabus Keywords:

Ohm's Law, Voltage, Current, Resistance, Electric Circuit, Integrated Circuit, Schematic Diagrams, Breadboard, Electromagnetism, Sensors, Motors, Electronic Art, Interactive Art, Robotic Art, Physical Computing, Pervasive Computing, Ambient Intelligence.

Indicative Content

1. An introduction to the basic principle of Electricity
2. History of the Digital Art
3. Workshop safety
4. Ohm's Law
5. Applications of basic electronic units and integrated circuits
6. Interactivity
7. Robotic Art & Kinetic Art
8. Project management and presentation techniques

Aims

To equip students with basic knowledge and techniques for making artwork with electronics

To familiarize students with local and international new media artworks

To promote reflections on the relationship between technology and art

To create opportunity for students to improve their project management skills

To facilitate active class involvements through studio practice

Learning Outcomes

On completion of the course, students will be able to:

i) identify basic electronic components and principles.

ii) express a critical awareness of technology and new media trends.

iii) demonstrate a better understanding of local and international new media artworks.

iv) integrate electronic techniques in generating creative art projects.

Measurement of Learning Outcomes

Students' progress towards the learning outcomes outlined above will be measured by means of:

1. Active participation in class discussions and electronic exercises. It reflects their ability to explain basic principles in Electronics and express critical comments on the technology trends and new media art.

2. A 3-5 pages project proposal which requires students to generate ideas and illustrate their art creation process through sketches, pictures, and schematics. It demonstrates their ability to conceptualize a kinetic/interactive art project.

3. A 10-minute proposal presentation which requires students to organize their creative thoughts and communicate with their classmates with proficient electronics terms introduced in class.

4. A 10-minute production plan presentation which requires students to finalize their plans of electronic projects and demonstrate the ability to modify electronic circuits to achieve the proposed artistic needs.

5. An art project which requires students to execute the proposed projects, which will be developed from the circuits introduced in the course exercises. Students are expected to perform their problem solving skills and collect the extra materials needed. An appropriate sense of artistic choices and attention to technical details are expected for this art project.

6. A 2-page studio report which requires students to organize their reflections upon the completion of the course and their art projects

Assessment

Active class participation	20%
Project proposal	20%
Proposal presentation	5%
Production plan presentation	10%
Art project	25%
Studio report	20%

Required Readings

Forrest M.Mims III, *Getting Started in Electronics*, Master Publishing Inc. 2003.

Leopoldseder, Hannes, Christine Schöpf, Gerfried Stocker ,eds., *Ars Electronica*, 2009. Wilson, Stephen, *Art + Science Now*, Thames & Hudson, 2010.

--,*The Network for Art, Technology and Society : the First 30 years* ; Ars Electronica 1979-2009,

Instructables: http://www.instructables.com

MAKE magazine: http://www.makezine.com

Recommended Readings

Dourish. Paul .*Where the Action Is: The Foundations of Embodied Interaction*, The MIT Press, Cambridge, Massachusetts, London, England, 2001.

Forrest M.Mims III , *Electronic Sensor Circuits & Projects* , Master Publishing Inc. 2003.

Jones Caroline A.,ed., *Sensorium: embodied experience, technology and contemporary art*, The MIT Press, List Visual Arts Center, 2006.

McComb, Gordon, *The Robot Builder's Bonanza*, McGraw-Hill Companies, 2001.

McCullough, Malcolm, *Digital Ground: Architecture, Pervasive Computing and Environmental*

Knowing, The MIT Press, Cambridge, Massachusetts, London, England, 2004.

Paul Scherz, *Practical Electronics for Inventors*, McGraw Hill Companies (Second Edition), 2006.

Wands, Bruce, *Art of the Digital Age* , Thames & Hudson, 2006.

Wilson, Stephen, *Information Arts: intersections of art, science and technology* , The MIT Press, Cambridge, Massachusetts, London, England, 2002.

Woodford,Chris, Luke Collins, Clint Witchalls, Ben Morgan and James Flint, *How Cool Stuff Works*, Dorling Kindersley Limited, 2005.

Important Notes:

(1)   Students are expected to spend a total of 9 hours (i.e. 3* hours of class contact and 6* hours of personal study) per week to achieve the course learning outcomes.

(2)   Students shall be aware of the University regulations about dishonest practice in course work, tests and examinations, and the possible consequences as stipulated in the Regulations Governing University Examinations. In particular, plagiarism, being a kind of dishonest practice, is "the presentation of another person's work without proper acknowledgement of the source, including exact phrases, or summarised ideas, or even footnotes/citations, whether protected by copyright or not, as the student's own work". Students are required to strictly follow university regulations governing academic integrity and honesty.

(3)   Students are required to submit writing assignment(s) using Turnitin.

(4)   To enhance students' understanding of plagiarism, a mini-course "Online Tutorial on Plagiarism Awareness" is available on https://pla.ln.edu.hk/.

*   Numbers of hours are subject to adjustment for individual courses.