

## COURSE CONTENT

<b>Course Code</b>	DR2014
<b>Course Title</b>	Wearable Technology, Fashion and Design
<b>Pre-requisites</b>	NIL
<b>No of AUs</b>	3
<b>Contact Hours</b>	39 total contact hours

### **Course Aims**

This course is an examination of the many categories of wearable technology, as well as closely related fields, such as wearable computing, techno fashion, electronic textiles, intelligent jewellery and smart clothes. You will research, experiment with and design wearable technology projects, from conceptual work to pragmatic solutions and applications. In this course, you will study how technology can be used in wearable contexts as a means to complement the functions of the human body and enhance personal expression. The course offers a theoretical introduction and foundation, which is iterated through practical elements in the form of concept development and prototyping. It will provide the basis for further studies and projects that combine technology and fashion.

### **Intended Learning Outcomes (ILO)**

By the end of the course, you should be able to:

1. Describe techniques used to create wearable objects and garments and the reasons for using them.
2. Develop concepts and narratives in order to propose the creation of wearable technology objects and garments.
3. Create wearable technology objects and garments.
4. Present and exhibit designs for wearable objects and garments.
5. Evaluate and constructively critique your own and your peers' wearable designs.

### **Course Content**

It is your assignment to research and conceptualise a wearable that addresses one of these themes, be it through acoustic or visual signals, through motion, or by controlling a media environment. There are many possibilities for input sensing, from accelerometers to temperature sensors, and the goal is to create the ideal mapping of input and output, embedded appropriately in the garment or accessory. At the end of the project you should have a functioning reactive/interactive wearable, which you will give a unique title and refine for presentation. Clarify the context in which this work is situated; reflect on the message, significance and the scope of the outcome. Write a text for your project, starting with a short description and then followed by an elaboration of the intention and meaning. Make digital presentation/documentation materials of your work. Document your work through text, photos and video, and if applicable, any other suitable media. Make sure the materials present your work in the best possible way.

### **Assessment (includes both continuous and summative assessment)**

Component	ILO Tested	Programme LO	Weighting	Team/ Individual
<b>Continuous Assessment</b> Concept narrative Sketch Design Prototype	1,2,3	--	40	Individual
<b>Final Project:</b> Present finalised wearable in class	1,2,3,4	--	40	Individual
<b>Continuous Assessment: Participation</b>	5	--	20	Individual
Total			100%	

### Reading and References

1. Pakhchyan, Syuzi. *Fashioning Technology: A DIY intro to smart crafting*. O'Reilly Media, Inc.", 2008.
2. Quinn, Bradley. *Techno Fashion*. Oxford: Berg, 2002.
3. Seymour, Sabine. *Functional Aesthetics*. Springer Vienna, 2010.
4. O'Mahony, Marie, and S. E. Braddock-Clarke. *Techno Textiles 2: Revolutionary fabrics for fashion and design*. Thames and Hudson, 2005.

### Course Policies and Student Responsibilities

#### (1) General

You are expected to complete all assigned readings, activities, assignments, attend all classes punctually and complete all scheduled assignments by due dates. You are expected to take responsibility to follow up with assignments and course related announcements. You are expected to participate in all project critiques, class discussions and activities.

#### (2) Punctuality

You are expected to be punctual for all classes. If you are more than 30 minutes late, you will be deemed as absent and will not be able to sign on the attendance register.

#### (3) Absenteeism

In-class activities make up a significant portion of your course grade. Absence from class without a valid reason will affect your participation grade. Valid reasons include falling sick supported by a medical certificate and participation in NTU's approved activities supported by an excuse letter from the relevant bodies. There will be no make-up opportunities for in-class activities.

### Academic Integrity

Good academic work depends on honesty and ethical behaviour. The quality of your work as a student relies on adhering to the principles of academic integrity and to the NTU Honour Code, a set of values shared by the whole university community. Truth, Trust and Justice are at the core of NTU's shared values.

As a student, it is important that you recognize your responsibilities in understanding and applying the principles of academic integrity in all the work you do at NTU. Not knowing what is involved in maintaining academic integrity does not excuse academic dishonesty. You need to actively equip yourself with strategies to avoid all forms of academic dishonesty, including plagiarism, academic fraud, collusion and cheating. If you are uncertain of the definitions of any of these terms, you should go to the [academic integrity website](#) for more information. Consult your instructor(s) if you need any clarification about the requirements of academic integrity in the course.

### Planned Weekly Schedule\*

\* Subject to adjustment by instructor according to the teaching situation, students' progress, public holidays and unforeseeable circumstances. A revised schedule will be issued to students at the start of the semester.

Week	Topic	Course LO	Readings/ Activities
1	Introduction	1	<p><b>Lecture &amp; Tutorial</b> Introduction, timeline and conceptual outline</p> <p><b>Research assignment</b></p>
2	Field Trip	1	<p><b>Field Trip</b> Trip to wearable centre</p>
3	Wearable Design and Fashion	1, 5	<p><b>Lecture &amp; Tutorial</b> Inspiration, creating mood board, sketching ideas and fashion figures.</p> <p><b>Research presentation</b></p>
4	Wearable Technology 1	1, 2, 3	<p><b>Lecture &amp; Tutorial</b></p>

			Materials and hardware (fabric types, batteries, wiring and surfaces).
5	<b>Wearable Technology 2</b>	1, 2, 3	<b>Lecture &amp; Tutorial</b> Arduino workshop
6	<b>Wearable materials and prototyping</b>	1, 2, 3	<b>Lecture &amp; Tutorial</b> Wearable materials Prototyping using muslin
7	<b>Main Project</b>	1, 2, 3	<b>Tutorial &amp; Consultation</b> Finalizing the prototype and starting an original design
8	<b>Main project</b>	1, 2, 3	<b>Tutorial &amp; Consultation</b> Integration of the configured technology and materials Wearable construction./ fabrication
9	<b>Main Project</b>	1, 2, 3	<b>Tutorial &amp; Consultation</b> Integration of the configured technology and materials Wearable construction./ fabrication
10	<b>Main Project</b>	1, 2, 3, 4, 5	<b>Tutorial &amp; Consultation</b> Integration of the configured technology and materials  <b>Work Critique &amp; Feedback</b>
11	<b>Main Project</b>	1, 2, 3	<b>Tutorial &amp; Consultation</b> Integration of the configured

			<p>technology and materials</p> <p>Wearable construction./ fabrication</p>
12	<b>Main Project</b>	1, 2, 3	<p><b>Tutorial &amp; Consultation</b></p> <p>Final construction/ fabrication</p> <p>Final presentation preparation</p>
13	<b>Final Presentation</b>	1, 2, 3, 4, 5	<p><b>Fashion Show presentation</b></p> <p>Final wearable</p> <p>Show production and running</p>