



SDES9747 Introduction to Furniture and Lighting

Term T1, 2019

Course Information

Units of Credit: 6

Course Overview

Course Description

This course focuses on the skills and processes used in the design and fabrication of contemporary furniture and lighting. You will be given the opportunity to select either furniture or lighting as the major driver for your skills development. The furniture design introduction will cover areas from forest to furniture sourcing and fabrication, solid timber, veneers, laminations, turning, and jointing techniques. The lighting design introduction will cover various contemporary light sources including Light Emitting Diodes (LEDs), and Plasma Lamps. Demonstrations will include discussion of lamp spectra, other lamp characteristics and how they contribute to a space. Attention will be given to the design and development of a sustainable practice in design by developing practical projects informed by integrating research, concepts and experimentation.

Course Learning Outcomes

On completion of this course, the student should be able to:

1. Recognise and analyse conceptual frameworks for ideas generation including brainstorming and problem solving.
2. Examine and appropriately select materials for furniture or lighting design.
3. Apply appropriate fixing methods in their furniture or lighting projects.
4. Draw and model furniture/lighting designs through various stages of development, to industry standards
5. Create a furniture/lighting design using workshop machinery and technical skills.

Teaching and Learning in this Course

This course uses a variety of teaching approaches:

Blended/online

- Review - assessment tool
- Moodle - learning management system

Lectures

A series of lectures will be given in order to frame the projects and give context for the studio engagement

Tutorials

Incorporates small group and reflective learning from lectures and selected readings, and peer review

Studio

Enables independent practice, experimentation, presentation, self reflection and critical analysis and review

Assessment

	TITLE	WEIGHTING	ASSESSMENT TYPE
Assessment Task 1	Design Development	40%	Design Studio Work
Assessment Task 2	Furniture or Lighting	60%	Design Studio Work

References for this Course

Students will be working across a number of studios and workshops during this course. You must bring personal tools and supply personal protective equipment and wear appropriate clothing and covered shoes to each class. (as per Health and Safety guidelines)

Equipment and materials

All students are expected to attend class with the materials necessary to carry out coursework activities and projects. It is essential that you supply your own personal tools for classwork as the college does not provide them. Specialised tools and equipment other than personal tools can be borrowed from the Ceramics or General Toolroom in F Block.

The college provides analogue and digital equipment necessary for students to complete course and project work, including 3D printing facilities. Where specified equipment is not available, appropriate alternatives will be made available.

Computers equipped with software required to complete components of this course will be available in the faculty laboratories however students are encouraged to use their own notebook computers where possible. A number of free applications are introduced in this course which offer the opportunity to explore advanced and exploitive design tools.

You will need to bring the following to the first and subsequent classes:

computer (optional but recommended).

software - advice on free or inexpensive software available for students will be advised in class

digital camera - for documenting and recording data.

sketch book /journal

pens and drawing pencils and other drawing or painting media

Modelling tools, including various boards, light woods and cutting tools. e.g. scalpel.

Specialist suppliers of fabrication equipment and materials listed below.

STURDY COVERED SHOES MUST BE WORN IN THE STUDIOS AND WORKSHOPS FOR SAFETY. When working in media studios, Please wear old clothes, or change into overalls/old shirt before class

Costs

Students may need to purchase additional materials, tools or services to complete set projects or to achieve particular desired outcomes. Students can choose to purchase these where available from the college, from commercial suppliers or other sources.

It is estimated you may incur costs of up to \$500 or more in material, tool and services to complete this course. Digital fabrication processes, including laser cutting and direct metal casting, may contribute significantly to this amount. Where this is a concern, the tutor will assist students to find the most cost effective solution to enable you to complete coursework.

Materials, Tool and Service Suppliers

UNSWAD workshops and studios <https://www.artdesign.unsw.edu.au/campus/workshops>

General art and drawing materials:

Campus Art Store The Art Scene, College Court Yard: <http://www.artscene.com.au>

Eckersleys Art Supplies 223-225 Oxford St Darlinghurst tel : (02) 9331 2166

General Materials:

Reverse Garbage. All sorts of materials - inexpensive - Reuse. www.reversegarbage.org.au Jewellery: A&E Metal 68 Smith Street, Marrickville Sydney 2204. tel:1300 360 598. www.aemetal.com.au Australian Jewellery Suppliers. S15/1. 428 George Street, 2000.tel: 8256 2666 <http://ajsonline.com> Ceramics: Blackwattle Pottery Supplies, 20 Stennett Road, Ingleburn NSW. <http://www.blackwattle.net.au/> Keanes ceramics, Debenham st, Somersby. tel: 4340 2426. <http://keaneceramics.com.au/> Kerry Lowe Gallery and Pottery Supplies, 49 King St Newtown. <http://www.kerrielow.com/> Textiles: Apparel and furnishing fabric suppliers. <http://www.tda.org.au> Fabric, foam and upholstery supplies <http://www.fabricsupplies.com.au> Digital fabric printing <http://www.digitalfabrics.com.au>

Plastics:

Cut to size plastics. General and engineering plastics <http://www.cuttosize.com.au>
Allplastics <http://www.allplastics.com.au>
<http://www.plastix.com.au/>

Casting and moulding supplies:

<http://www.barnes.com.au/>

Timber:

Recycled timber, custom milling and joinery. 5 minutes from Sydney CBD www.ironwood.com.au
Architectural timber profiles www.fedwood.com.au
Cane and rattan www.wickerworks.com.au

Architectural hardware, furniture fittings, specialist components, lighting, electronics, adhesives.
www.essentracomponents.com.au
www.authenticlightingandhardware.com/index.html
www.furniturehardwaresupplies.com.au
<http://au.rs-online.com/web>
www.smallparts.com.au

Printing:

Dark Star Digital printing (near UNSWAD campus) www.darkstardigital.com.au

Specialist printing services

www.next-printing.com/retail

Digital Fabrication Services:

Laser Cutting www.mclaser.com.au
Laser Cutting www.lasermade.com.au/home

Laser Cutting www.onlinelasercutting.com.au

3D printing UNSWAD Maker Space - contact the Toolroom, ground floor of F Block. 3D printing Bilby CNC Alexandria www.bilby3d.com.au/3DPrintService.asp
3D printing www.3dprintingstudio.com.au
3D printing www.williams3d.com.au/services/3d-printing
CNC milling www.boxanddice.com.au
CNC milling www.cncroutingsydney.com.au

References and other resources for this course:

Almqvist, J. and J. Lupton (2010). "Affording Meaning: Design-orientated research from humanities and social sciences." Design Issues 26(1).

Bachelard, G. (1994). The Poetics of Space, Beacon Press.

- Bamford, R. (2010). "Model and mold making video." from <https://www.youtube.com/user/ubamfordo>.
- Bijker, W. E. and J. Law (1992). *Shaping Technology/Building Society: Studies in Sociotechnical Change*, MIT Press.
- Birn, J. (2013) *Digital Lighting and Rendering*. New Riders; 3 edition
- Brown, T. (2008). "Tales of creativity and play." http://new.ted.com/talks/tim_brown_on_creativity_and_play.
- Chapman, J. (2009) *Design for Emotional Durability*. Design Issues Vol 25, no. 4 MIT Press
- Desmet P., Hekkert P., Hillen M. (2003) Values and emotions; an empirical investigation in the relationship between emotional responses to products and human values. 5th European academy of design conference proceedings, University of Barcelona, Spain.
- Dunne, A. (2005). *Hertzian Tales: Electronic Products, Aesthetic Experience, and Critical Design*. London, UK, The MIT Press.
- Elphinstone, B. The psychology behind the security laws. The Drum, ABC TV.
<http://www.abc.net.au/news/2014-10-27/elphinstone-the-psychology-behind-the-security-laws/5844296>
- Folkmann, M. N. (2010). "Evaluating Aesthetics in Design: A Phenomenological Approach." *Design Issues* 26(1).
- Fukasawa, N. and J. Morrison (2007). *Super Normal – Sensations of the Ordinary*, Lars Muller.
- Lefteri, C. (2007). *Making it: Manufacturing techniques for product design*, Laurence King.
- Lesot.M, Bouchard.C, Detynieck.M, Omhover. J.F. Product Shape and Emotional Design: An application to Perfume Bottle. <http://webia.lip6.fr/~lesot/LesotBouchardDetynieckiOmhoverKEER10.pdf>
- Manzini, E. (1992). *The Garden of Objects; Designing for a World to Take Care Of*. Society for Responsible Design. Sydney, Australia.
- Manzini, E. and J. Cullars. (1992). "Prometheus of the Everyday: The Ecology of the Artificial and the Designer's Responsibility." *Design Issues* (9.1): 5-20.
- McDonough, W. and M. Braungart (2002). *Cradle to Cradle: Remaking the Way we Make Things*, New York: North Point Press.
- McKim, R. H. (1980). *Experience in Visual Thinking*, Brooks/Cole.
- Saito, Y. (2007). "The Moral Dimension of Japanese Aesthetics." *Journal of Aesthetics and Art Criticism*(65.1): 85- 97.
- Scarry, E. (1987). *The Body in Pain: The Making and Unmaking of the World (Artefacts: The Making Sentient of the External World)*, Oxford University Press.
- Schneier, B. *The Psychology of Security* (2008)
https://www.schneier.com/essays/archives/2008/01/the_psychology_of_se.html
- Tonkinwise, C. (2005). *Ethics by Design, or the Ethos of Things*. Design Philosophy Papers. col. 2. ed. . A.-M. Willis. Ravensbourne, Australia, Team D/E/S Publications: 49- 58.
- Tonkinwise, C. (2008). *Interminable Design: Techne? and Time in the Design of Sustainable Service Systems*. *Design Wisdom: Techne?'s Strategic Nature*. 5th European Academy of Design Conference.
- Van Krieken, B., Desmet, P., Aliakseyeu, D. and Mason, J. A sneaky kettle: Emotionally Durable Design Explored in Practice. Proceedings of 8th International Design and Emotion Conference London 2012.

Vaughan, W. (2012). Digital Modeling, New Rider.

Ware, C. (2008). Visual Thinking: For Design, Morgan Kaufmann

Websites:

Secured By Design: www.securedbydesign.com/professionals/publications.aspx FormZ Tutorials:

www.youtube.com/user/formz3D/videos

Digital Fabrication Tutorials 123d Make: www.123dapp.com/make

Computer Design Software Tutorials: lynda.com