

COURSE CONTENT

Course Code	DR2015
Course Title	Furniture Design II
Pre-requisites	DR2013
No of AUs	3
Contact Hours	39 hours studio contact

Course Aims

Building on the theory and practice that you studied in DR2013 Furniture Design 1, this studio course will introduce you to more advanced methods of combining natural and synthetic materials, which you will then apply to the processes of designing and producing furniture for mass-production, while considering various key design factors. This practice enables you to further develop skillsets such as veneering, laminating, moulding and bending timber and plywood, which can then be deployed in future furniture design projects.

Intended Learning Outcomes (ILO)

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

1. Identify the relationship between material combination, mass-production, modern lifestyle and environmental awareness.
2. Develop various techniques of replicating identical components to minimise production costs, material wastage and to maximise time efficiency.
3. Apply advanced hands-on skills and mechanical usage to balance beauty, utility and considerations of mass production in your practice.
4. Present advanced levels of conceptual development in the embodiment of demountable furniture.
5. Constructively critique concepts and techniques employed by peers in their furniture design practice.

Course Content

Material combination

An introduction into the property of natural and synthetic materials. Through lectures and experimentation you will be able to select and combine materials according to anthropometrical, structural, cultural, manufactural, transportable and aesthetic considerations.

Material replication

An introduction to replicating identical components. You will learn how to use the combination of CAD/CAM, power tools, heavy machines and jigs to minimise production costs, material wastage and maximising time efficiency, key factors in mass-production.

Advanced use of jigs and modern Joinery

You will develop your skills in both the customisation and usage of jigs. You will also build on the basic skills of joinery learned in DR2013, in order to further explore methods of assembling and disassembling vertical and horizontal planes with the use of industrial fittings, with a focus on designing flat-packed furniture.

Class assignments

Three major assignments and the usage of demountable joints for structural, economical and aesthetic purposes. These will be developed through lectures, field trip, tutorials, class exercises and peer/instructor feedback sessions.

Assessment (includes both continuous and summative assessment)

Component	ILO Tested	Programme LO	Weighting	Team/ Individual
Continuous Assessment - Veneering - Lamination; - Moulding; - Demountable joints joined by industrial fittings; and - Document trial, error, solution and feedback that occurred during research, conceptual development and embodiment.	1,2,3	--	40	Individual
The Major Project: Develop and fabricate modular furniture for demountable flat-pack transportation informed by current living lifestyle.	1,2,3,4	--	40	Individual
Continuous Assessment: Participation	5	--	20	Individual
Total			100%	

Reading and References

Textbooks:

- Castle Wendell & Edman David, 1980, *The Wendell Castle Book of Wood Lamination*, Van Nostrand Reinhold Company, New York, U.S.A.
- Cranz Galen, 1998, *The Chair: Rethinking Culture, Body and Design*, W.W. Norton & Company, Inc., New York, U.S.A.
- Dormer Peter, 1987, *The new furniture trends + traditions*, Theme and Hudson Ltd., London, U.K.
- Johnson Huge, 1976, *The International book of Wood*, Simon and Schuster., New York, U.S.A.
- Meltzer Burkhard and Oppeln Tido von, 2016, *Rethinking the Modular*, Theme and Hudson

Ltd., London, U.K.

- Seike Kiyosi, 1977, *The Art of Japanese Joinery*, Weatherhill., Colorado, U.S.A.
- Thompson Rob, 2011, *The Manufacturing Guides: Product and Furniture Design*, Theme and Hudson Ltd., New York, U.S.A

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	Lectures/ field trip	course LO	Practical activities/ assignments/ critiques
1	1st Lecture: - Course introduction; - Briefing on the Major Project; and - The production of wooden veneer.	1,2, 3, 5	1st WORKSHOP: The property of wooden veneer.
2	2nd Lecture: An investigation into the relationship between stacking lamination and fluid form.	1,2, 3, 5	2nd WORKSHOP: Patching veneer
3	Nil	1, 2, 3, 5	3rd WORKSHOP: CNC milling
4	3rd Lecture: An exploration of fluid transition. You will examine ways of creating the flow between vertical and horizontal planes in regarding to structural, aesthetic and economical considerations.	1, 2, 3, 5	4th WORKSHOP: Laminating and moulding veneer and plywood
5	Nil	1,2, 3, 5	5th WORKSHOP: Equalising width and length of MDF by table saw.
6	Nil	1,2, 3, 5	6th WORKSHOP: Modern joinery (using three types of industrial fittings from Germany)
7	Nil	1, 2, 3, 4, 5	1st CRIT: - Presenting the latest design outcome of the Major Project; and - Receiving feedback; *Submitting the Mid Term Report (E-Journal)
8	Nil	1, 2, 3, 5	7th WORKSHOP: Studio practice
9	Nil	1, 2, 3, 5	8th WORKSHOP: Studio practice
10	Nil	1, 2, 3, 5	9th WORKSHOP: Studio practice
11	Nil	1,2, 3, 5	10th WORKSHOP: Studio practice
12	Nil	1,2, 3, 5	11th WORKSHOP: Studio practice
13	Nil	1, 2, 3, 4, 5	2nd CRIT: - The Final Presentation; and - Receiving feedback.