

Design Studio Collaborative Project 3

MDD-08

MODULE DESCRIPTOR

ECTS credits¹	10	Programme	MSc in Medical Device Design
NQF level	9	School	School of Design
Stage	1	Module Co-ordinator	Enda O'Dowd
Trimester	Spring	Module Team	Enda O'Dowd, Derek Vallenge, industry tutor
Contact	Enda O'Dowd: odowde@staff.ncad.ie		
Responsibility	The NCAD Academic Council and the School of Design Board have responsibility for this module.		

1. Introduction

An industry partner is selected in accordance with the NCAD Medical Device Design collaborative project design guidelines. The industry partner is asked to interact with the project at four stages during the project as follows:

- Delivering the brief:** The industry partner is requested to provide a brief which is open but has the usual constraints associated with working in the medical devices industry. They are asked to have at least one member of staff deliver the brief to the students. Briefs have to be human centred and are usually open for the students to interpret how they can tackle the problem or unmet clinical need. It is important at this stage that briefs are not incremental changes to a device or a procedure.
- Research evaluation and feedback:** The industry partner is asked to be available for the students to present their research work. Feedback at this stage will give the students direction on their research insights.
- Concept Presentation:** Each Student produces at least 3 concepts to answer the design brief. Feedback from the industry partner will be used to evaluate the concepts and decide on the direction for the final design.
- Final Presentations:** Each student produces a detailed final design presentation. This presentation consists of detailed designs complete with materials, manufacturing methods, product renderings and 3D models.

2. What will I learn?

On successful completion of this module students will be able to:

- Conduct in-depth research in collaboration with peers and industry partners.
- Conduct human focused research using contextual research methods.

¹ European Credit Transfer and Accumulation System, where 60 ECTS credits equate to the workload of a full-time academic year

3. Use peer reviewed journals and other reputable sources to generate secondary research.
4. Present primary and secondary research in an engaging and visually appealing manner.
5. Generate design ideas based on insights from user focused contextual research.
6. Sketch and sketch-model ideas in order to evaluate and communicate them.
7. Present design concepts in an open collaborative manner.
8. Use feedback from various stakeholders in order to hone ideas into a final design concept.
9. Produce a 3-dimensional computer model of their designs.
10. Specify materials and manufacturing processes in accordance with FDA and CE approvals.
11. Present final design concepts in a realistic and industry appropriate manner.

3. How will I learn?

Learning tool	Hours
Lectures workshops and tutorials	32
Specified Learning Activities	8
Autonomous Student Learning	160
Total Workload	200

4. Am I eligible to take this module?

Module Requisites and Incompatibles

Pre-requisites	Before commencing this module, students must have completed Design Studio Collaborative Project 1.
Co-requisites	None
Incompatibles	None
Prior learning	Where a student can demonstrate that they have achieved at least 80% of the learning outcomes of this module, by academic certified achievement, or through quantifiable and documented experience, they can apply to the School for that prior learning to be recognised. Applications must be received prior to the commencement of delivery of the module.
Recommended	None

5. How will I be assessed?

Assessment tool	% of final grade	Timing
Group research presentation	25	At research stage
Concept presentation	25	At concept stage
Final Presentation	50	At final design stage
Total	100%	

Grading

Students' assessments will be graded using the [NCAD Grade Descriptors](#).

6. What happens if I fail?

If you fail this module it is necessary to take another 10 credit industry/clinical project

7. When and where is this module offered?

The module is delivered in the second (spring) trimester, in the Medical Device Design studios.

8. How will I have the chance to evaluate the module?

It is important to NCAD that students inform the development of teaching and learning at NCAD. We encourage all students to communicate their concerns and their observations about their study to members of staff so that any changes can be made in a timely manner.

About two-thirds of the way through the year, a student forum will be convened to gather students' comments about their study and the delivery of the programme. In addition, at the end of Trimester 2, students have the opportunity to complete an online evaluation of their study and experience at NCAD. Students are also encouraged to complete the Irish Student Survey of Engagement. These evaluation events are important to current and future students, to ensure we can enhance the delivery of programmes at NCAD.

In addition, students are invited to discuss their experience on the module with their lecturers at any point during the year. Students can also relay your comments to the class student representative who will communicate their comments to the staff.

**For further details on the content of your module and teaching arrangements,
consult your Programme or Module Handbook**