

DEVL: Working Prototypes

Language of Instruction: English Credits: 5 NFQ Level: 0 Modulo Doliver of Instruction: 2 programme(s) Tasching & Lamma (s) 2 programme(s) Tasching & Learning Chearning (s) Strategies: - Explicit and guide learner engagement and scaffold a deep-dearning using the following sign solutions: The holisits, studie learner engagement and scaffold a deep-dearning using the following strategies: - Lecture, studio based approach, facilitated by faculty, is intended to mergotate, facilitate and guide learner engagement and scaffold a deep-dearning using the following strategies: - Lecture, studio based learning Pecalema learning, - E-Learning, - Workshop, - Facilitated peer-do-peer critique/review, - Self-directed independent learning, - E-Learning, - Workshop, - Facilitated peer-do-peer critique/review, - Self-directed independent learning, - E-Learning, - Workshop, - Facilitated invokshop sometics as and proactice and regronmoits. 8 modd # making (vear) The aim of the module is to introduce new methods of modeling to increase detail and functionality. Learners will engage with opportunities. The administ & safe facilitate for traditional modelmaking technologies, skills and deliver a model using these with the design process and produce prototypes and final appearance models to a design process and produce prototypes and final appearance models to a bable to source components. Inture, mechanism and materia to working prototypes. Long To paly relevant detailing to model making both for ergonomic testing models and functionality. Learners will explicate is the detailing and self. Long To	Module Title	:		Working Prototypes		
Creditis: 5 NFQ Level: 6 Module Delivered In 2 programme(s) Taeshing & Learning The learner is immersed in a range of collaborative, problem-solving activities, to investigate and evaluate design solvitions. The holdsite, student-centred studio-based approvab, facilitated by faculty, is intended to engotate, facilitate and guide learner orgagement and scaffold a deep-tearning using the following strategies: Module Alm: The aim of this module is to intended is to intended be to interduce learner, Peer coper groupherm learning, * E-Learning. Workshop, - Facilitated peer-to-peer critique/review, - Self-directed independent learning, * Deverto-peer critique/review, - Self-directed independent learning, * Deverto-peer groupherm learning, * E-Learning. Module Alm: The aim of this module is to introduce learners to defailing in model making (year 1) The sim of the wolds boy portunities. The media is a for produce for traditional model making (year 1) The sim of the module using these methods. Through this they will build on their iterative skills of modelling and explore optorunities. The module build on their iterative skills of modelling and explore optorunite. The module build on their iterative skills of modelling and explore apportunites. The module build on their iterative skills of modelling and explore optorunite. On successful completion of this module the learner should be able to: Is appearance on their models and vorking prototypes. Loar To polan modelling and source components specific to model leatilling Is apole leave andel is incommented before enrolment in this module. </td <td>Language of</td> <td>Instruction</td> <td>ו:</td> <td>English</td> <td></td>	Language of	Instruction	ו:	English		
NPQ Level: § Module Delivered In 2 programmes(s) Teaching & Learning	Credits:		5			
Module Delivered In 2 programme(s) Teaching & Learning Strategies: The learner is immersed in a range of collaborative, problem-solving activities, to investigate and evaluate design solutions. The holistic, student-centred studio-based approach, facilitated by faculty, is intended to negotiate, facilitate and guide learner rangagement and scaffold a deep-learning using the following strategies: Learning. * Workshop, * Facilitate peer-to-peer critique/review, * Gell-directed independent learning. Module Aim: The aim of this module is to introduce learners to detailing in model making for design. This module builds on the skills learner and invoking practice and ergonomics & model making for design. The module is to introduce new methods of modelling to increase detail and functionality. Learners will engage with opportunities use models as decision making tool. Learners will engage in applicate a model using these methods. Through this they will build on their iterative skills and deliver a model using these methods. Through this they will build on their iterative skills and peerance models to a high standard. Using working prototypes to validate design oncerels and working components. Learners will engage will appearance on their models and working prototypes and final appearance models to a high standard. Using working prototypes to validate design oncerels and working orportophores. The aim of the immedial is a decision method shore a design of the skills experiments. Learning Outcomes Consucessful completion of this module the learner should be able to: L01 To apply relevant detailing to model making both for ergonomic testing models and final appearance models L02 To produce a detailed representational model demonstrati	NFQ Level:		6			
Teaching & Learning The learner is immersed in a range of collaborative, problem-solving activities, to investigate and evaluate design solutions. The holistic, student-centred studio-based approach, fagilitated by faculty, is intended to negotiate, facilitate and guide learner enagagement and scaffold a deep-learning using the following strategies: - Lectures, - Studio based learner ongagement and scaffold a deep-learning using the following workshop, - Facilitate and guide learner enagagement and scaffold a deep-learning using the following workshop, - Facilitated per to-peer critique/review, - Self-directed independent learning, - Module Aim: The aim of this module is to introduce learners to detailing in model making for design. This amodule builds on the skills learned in workshop practice and ergonomics & model making for design. This module builds on the skills learned in workshop practice and regonomics & Model making technologies, skills and deliver a model using horees in through the hey will build on other treates as learners will angage will opportunities, thures, methanism and materials is a staff and to provide and the skills and deliver a model using horees in through the hey will build on other treates as learners and endoting and expore the abele to: curve components, futures, methanism and materials that will enhance the detailing and appearance on their models and working prototypes. Learning Outcomes To apply relevant detailing to model making both for ergonomic testing models and final appearance models to a high appearance on their models and working prototypes. Internet is module internet is for the skills LO1 To apply relevant detailing to model making both for ergonomic testing models and final appearance models to a high appearance on their models and working prototypes.	Module Deliv	vered In		2 programme(s)		
Module Aim: The aim of this module is to introduce learners to detailing in model making for design. This module builds on the skills learned in workshop practice and ergonomics & model making (year 1). The aim of the module is to introduce new methods of modelling to increase detail and functionality. Learners will engage with upoportunities, materials & safe practice for traditional modelmaking (year 1). The aim of the module using these methods. Through this they will build on their iterative skills of modelling and eliver a model using these methods. Through this they will build on their iterative skills of modelling and eliver a model opoportunities to use models as a decision making tool. Learners will appearance models to a high standard. Using working prototypes to validate design concepts and morking prototypes and final appearance models to a high standard. Using working prototypes to validate design concepts and working components. Learners will also be able to source components, fixtures, mechanisms and materials that will enhance the detailing and appearance models to a high standard. Using working prototypes to validate detailing models and final appearance models LO1 To apply relevant detailing to model making both for ergonomic testing models and final appearance models LO2 To plan modelling and source components specific to model detailling LO3 To produce a detailed representational model demonstrating the use of new skills LO4 Engage in a review process of module content and deliverable and reflect on future development Module Recommendations This is prior learning (or a practical skill) that is recommended before enrolment in this module. <td col<="" th=""><th>Teaching & Strategies:</th><th>Learning</th><th></th><th>The learner is immersed in a range of collaborative, problem-solving design solutions. The holistic, student-centred studio-based approac negotiate, facilitate and guide learner engagement and scaffold a de strategies: • Lectures, • Studio based learning, • Peer-to-peer group/ Workshop, • Facilitated peer-to-peer critique/review, • Self-directed in</th><th>activities, to investigate and evaluate h, facilitated by faculty, is intended to ep-learning using the following team learning, • E-Learning, • ndependent learning,</th></td>	<th>Teaching & Strategies:</th> <th>Learning</th> <th></th> <th>The learner is immersed in a range of collaborative, problem-solving design solutions. The holistic, student-centred studio-based approac negotiate, facilitate and guide learner engagement and scaffold a de strategies: • Lectures, • Studio based learning, • Peer-to-peer group/ Workshop, • Facilitated peer-to-peer critique/review, • Self-directed in</th> <th>activities, to investigate and evaluate h, facilitated by faculty, is intended to ep-learning using the following team learning, • E-Learning, • ndependent learning,</th>	Teaching & Strategies:	Learning		The learner is immersed in a range of collaborative, problem-solving design solutions. The holistic, student-centred studio-based approac negotiate, facilitate and guide learner engagement and scaffold a de strategies: • Lectures, • Studio based learning, • Peer-to-peer group/ Workshop, • Facilitated peer-to-peer critique/review, • Self-directed in	activities, to investigate and evaluate h, facilitated by faculty, is intended to ep-learning using the following team learning, • E-Learning, • ndependent learning,
Learning Outcomes On successful completion of this module the learner should be able to: LO1 To apply relevant detailing to model making both for ergonomic testing models and final appearence models LO2 To palm modelling and source components specific to model detailling LO3 To produce a detailed representational model demonstrating the use of new skills LO4 Engage in a review process of module content and deliverable and reflect on future development Pre-requisite learning Module Recommendations This is prior learning (or a practical skill) that is recommended before enrolment in this module. No recommendations listed Incompatible Modules These are modules which have learning outcomes that are too similar to the learning outcomes of this module. No incompatible Modules To-crequisite Modules Its is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed. No incompatible modules listed Design Requirements The earning (or a practical skill) that is mandatory before enrolment in this module is allowed. No requirements No requirements listed <td>Module Aim</td> <td></td> <td></td> <td>The aim of this module is to introduce learners to detailing in model on the skills learned in workshop practice and ergonomics & model n is to introduce new methods of modelling to increase detail and func opportunities, materials & safe practice for traditional modelmaking t using these methods. Through this they will build on their iterative sk opportunities to use models as a decision making tool. Learners will fully synthesise with the design process and produce prototypes and standard. Using working prototypes to validate design concepts and be able to source components, fixtures, mechanisms and materials t appearance on their models and working prototypes.</td> <td>making for design. This module builds making (year 1). The aim of the module tionality. Learners will engage with echnologies, skills and deliver a model iills of modelling and explore engage in applied ergonomic testing to I final appearance models to a high working components. Learners will also that will enhance the detailing and</td>	Module Aim			The aim of this module is to introduce learners to detailing in model on the skills learned in workshop practice and ergonomics & model n is to introduce new methods of modelling to increase detail and func opportunities, materials & safe practice for traditional modelmaking t using these methods. Through this they will build on their iterative sk opportunities to use models as a decision making tool. Learners will fully synthesise with the design process and produce prototypes and standard. Using working prototypes to validate design concepts and be able to source components, fixtures, mechanisms and materials t appearance on their models and working prototypes.	making for design. This module builds making (year 1). The aim of the module tionality. Learners will engage with echnologies, skills and deliver a model iills of modelling and explore engage in applied ergonomic testing to I final appearance models to a high working components. Learners will also that will enhance the detailing and	
On successul completion of this module the learner should be able to: LO1 To apply relevant detailing to model making both for ergonomic testing models and final appearence models LO2 To plan modelling and source components specific to model detailling LO3 To produce a detailed representational model demonstrating the use of new skills LO4 Engage in a review process of module content and deliverable and reflect on future development Pre-requisite learning Module Recommendations This is prior learning (or a practical skill) that is recommended before enrolment in this module. No recommendations listed No recompatible Modules The se are modules which have learning outcomes that are too similar to the learning outcomes of this module. No incompatible modules listed Design Requirements This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed. No requirements listed	Learning Ou	tcomes				
LO1 To apply relevant detailing to model making both for ergonomic testing models and final appearence models LO2 To plan modelling and source components specific to model detailling LO3 To produce a detailed representational model demonstrating the use of new skills LO4 Engage in a review process of module content and deliverable and reflect on future development Pre-requisite learning Module Recommendations This is prior learning (or a practical skill) that is recommended before enrolment in this module. No recommendations listed Incompatible Modules These are modules which have learning outcomes that are too similar to the learning outcomes of this module. No incompatible modules listed Co-requisite Modules This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed. No incompatible modules listed Co-requisite Modules This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed. No requirements No requirements listed	On successfu	I completio	n of th	is module the learner should be able to:		
LO2 To plan modelling and source components specific to model detailling LO3 To produce a detailed representational model demonstrating the use of new skills LO4 Engage in a review process of module content and deliverable and reflect on future development Pre-requisite learning Module Recommendations This is prior learning (or a practical skill) that is recommended before enrolment in this module. No recommendations listed Incompatible Modules These are modules which have learning outcomes that are too similar to the learning outcomes of this module. No incompatible modules listed Co-requisite Modules S DSGN H2429 Design Requirements This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed. No requirements listed	LO1	To apply re	elevar	t detailing to model making both for ergonomic testing models and fin	al appearence models	
LO3 To produce a detailed representational model demonstrating the use of new skills LO4 Engage in a review process of module content and deliverable and reflect on future development Pre-requisite learning Pre-requisite learning Module Recommendations This is prior learning (or a practical skill) that is recommended before enrolment in this module. No recommendations listed Incompatible Modules These are modules which have learning outcomes that are too similar to the learning outcomes of this module. No incompatible modules listed Co-requisite Modules B SGN H2429 Design Requirements This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed. No requirements listed	LO2	To plan mo	odellir	g and source components specific to model detailling		
LO4 Engage in a review process of module content and deliverable and reflect on future development Pre-requisite learning Module Recommendations This is prior learning (or a practical skill) that is recommended before enrolment in this module. No recommendations listed Incompatible Modules These are modules which have learning outcomes that are too similar to the learning outcomes of this module. No incompatible modules listed Co-requisite Modules 6850 DSGN H2429 Design Requirements This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed. No requirements listed	LO3	To produce	e a de	tailed representational model demonstrating the use of new skills		
Pre-requisite learning Module Recommendations This is prior learning (or a practical skill) that is recommended before enrolment in this module. No recommendations listed Incompatible Modules These are modules which have learning outcomes that are too similar to the learning outcomes of this module. No incompatible modules listed Co-requisite Modules 6850 DSGN H2429 Design Requirements This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed. No requirements listed	LO4	Engage in	a rev	ew process of module content and deliverable and reflect on future de	evelopment	
Module Recommendations This is prior learning (or a practical skill) that is recommended before enrolment in this module. No recommendations listed Incompatible Modules These are modules which have learning outcomes that are too similar to the learning outcomes of this module. No incompatible modules listed Co-requisite Modules 6850 DSGN H2429 Design Requirements This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed. No requirements listed	Pre-requisite	elearning				
No recommendations listed Incompatible Modules These are modules which have learning outcomes that are too similar to the learning outcomes of this module. No incompatible modules listed Co-requisite Modules 6850 DSGN H2429 Design Requirements This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed. No requirements listed	Module Reco This is prior le	ommendati earning (or a	ons a prac	tical skill) that is recommended before enrolment in this module.		
Incompatible Modules These are modules which have learning outcomes that are too similar to the learning outcomes of this module. No incompatible modules listed Co-requisite Modules 6850 DSGN H2429 Design Requirements This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed. No requirements listed	No recomme	ndations list	ed			
No incompatible modules listed Co-requisite Modules 6850 DSGN H2429 Requirements This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed. No requirements listed	Incompatible	e Modules odules whicl	h hav	e learning outcomes that are too similar to the learning outcomes of th	is module.	
Co-requisite Modules 6850 DSGN H2429 Design Requirements This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed. No requirements listed	No incompati	ble modules	liste	1		
6850 DSGN H2429 Design Requirements This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed. No requirements listed	Co-requisite	Modules				
Requirements This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed. No requirements listed	6850			DSGN H2429	Design	
No requirements listed	Requiremen This is prior le	ts earning (or a	a prac	tical skill) that is mandatory before enrolment in this module is allowed	d.	
	No requireme	ents listed				



DEVL: Working Prototypes

Module Content & Assessment

Indicative Content

Iterative Modelling for Form Generation

Through synthesis the design module learners will explore form and aesthetic through iterative modelling. This will build on previous foam modelling projects where finer details are explored and assessed.

Applied Ergonomics Modelling

In groups learners will plan, produce and assess ergonomic prototype models generated to answer questions in the design module. The model type will be governed by the focus of the design module

Industry Driven Representational Model

Learners will develop the skills and knowledge to source and acquire component parts that will increase the detail of final models. Learners will build on previous representational model and increase the focus on the detailing to lift the model to a professional standard. This model will be presented to a client (in line with design module) in a way that engages the client in the design on a 3D level.

Laser Cutting

Learners will be introduced to laser cutting as a tool to aid in the development of 3D modelling for design. Through lectures and practice based learning they will be walked through the good practice, running and maintenance of the laser cutter. Learners will be made aware of appropriate material use for the machine. Learners will engage in a applied project to allow them run through the process and deliver a product at the conclusion.

Workshop/Materials (Resource)

This is a dedicated space to allow learners to test, evaluate and represent the application of their research through 3D physical workshop made models. Resourcing of a workshop space include machinery, tools and materials. Materials such as modelling foam, MDF, Jelutong, Cardboard, foam board are all essential to investigation of developing a design solution.

Technician (Resource)

A dedicated design technician to support, demonstrate and maintain equipment while auditing and stocking of materials for the design workshop and studio practice

Laser Cutter (Resources)

A laser cutter for cutting acrylic, paper, card, wood & engraving of anodised alluminium.

Assessment Breakdown	%
Continuous Assessment	100.00%

Continuous Assessment

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Project	High and low fidelity Iterative foam Modelling – exploration of form and aesthetic through iterative foam modelling. Understanding mechanisms and form.	1,2,3	25.00	Week 5
Project	Focused Appearance Model – Dry Assembly Sequence. Production of final appearance model (unpainted) in line with re-design project (studio). Appearance detailing with internal components sourcing and specification.	1,2,3	20.00	Week 10
Project	Sketch Modelling and Prototypes Group project – group planning, production and evaluation of ergonomic models finish & presentation.	1,2,3	15.00	Week 11
Project	Final Appearance Model – Production of final Prototype model with final surface finish and working components.	1,2,3	35.00	Week 14
Reflective Journal	Planning & Management Reflective Practice: reviewing approach, engagement, performance, collaborative style, synthesis with aligned modular elements and identification of future developmental need/s.	2,4	5.00	Week 15

No Project

No Practical

No End of Module Formal Examination

SETU Carlow Campus reserves the right to alter the nature and timings of assessment



DEVL: Working Prototypes

Module Workload		
Workload: Full Time		
Workload Type	Frequency	Average Weekly Learner Workload
Studio Based Learning	Every Week	4.00
Independent Learning Time	Every Week	5.00
	Total Hours	9.00

Module Delivered In			
Programme Code	Programme	Semester	Delivery
CW_DHPDI_B	Bachelor of Arts (Honours) in Product Design Innovation	3	Mandatory
CW_DHIDE_D	Bachelor of Arts in Design	3	Mandatory