



# Module Descriptor for CNWY40160 in 2025/2026

Short Title	Long Title	Subject Area	College	School/Unit	Last Modified
Applied Proteomics	Applied Proteomics	Conway Institute	Research Inst & Other Entities	UCD Conway Institute	25 Jul 2025

UCD Level	Credits (ECTS)	Semester/Trimester	Grade Scale	VLE Setup	Module Coordinator	Status
4 - Masters	5.0	Summer	Letter grades	Start of Trimester	Matthias Wilm	Active

Mode of Delivery	Internship Module	Module Type	Micro-credential Module	Active & Collab Learning Space
Blended	No	Other	No	No

Overall Places	Core/Option	General Elective	First Year Elective	International	Open Learning
20	20	0	0	0	0

Purpose & Overarching Content
This module is designed for students who wish to understand and become critically aware of principles, practice and applications of the rapidly developing proteomic technologies. The module is delivered in 10 seminar sections ranging from the biochemical and biological basics of proteomic analysis techniques to applications in biological and clinical research. The final seminars focus on systems biology; a research direction extensively utilising the technical advance in proteomic research.

Learning Outcomes
After the course the students should be familiar with the basic concepts of mass spectrometry based protein characterisations; its origins and current development. They should be aware how to prepare a sample for proteomic characterisation and what they can expect from the analysis. They should know the significance and the limitations of mass spectrometry based protein identifications and quantifications. The scientific session should have given the students a direct view to applications of proteomic techniques as they are done at the UCD. Discussions with the speakers should have familiarised them with experimental conditions they should be aware of when doing a proteomic investigation. The exposure to clinical research helps them to understand the specific requirements of this environment. Ultimately, the students should be familiar with systems biology as a research direction and mass spectrometry based protein characterisation and other protein quantification techniques figure into this research.

Approaches to Teaching and Learning
Sound introduction to proteomic techniques used in biological research

## Student Effort Hours

Student Effort Type	Hours
<b>Contact Time</b>	
Lectures	50
<b>Total Contact Time</b>	<b>50</b>
<b>Specified Learning Activities</b>	
Specified Learning Activities	20
<b>Total Specified Learning Activities</b>	<b>20</b>
<b>Autonomous Student Learning</b>	
Autonomous Student Learning	30
<b>Total Autonomous Student Learning</b>	<b>30</b>
<b>Total</b>	<b>100</b>



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## Assessment Details

Assessment Type	Description	Timing	Open Book?	% of Final Grade	Component Scale	Must-Pass?	In-module Component Repeat Offered?
Quizzes/Short Exercises	Two multiple choice tests, 10 questions each with 3 possible answers.	Week 2, Week 3		100	Graded	Yes	Yes
<b>Total</b>				<b>100</b>			

### Carry Forward of Passed Components

No

## Feedback Strategy

Feedback Strategies	Sequence of Feedback
- Feedback individually to students, post-assessment - Peer review activities	During the practical part of the course

## Remediation Strategy

Remediation Type	Remediation Timing
In-Module Resit	Prior to relevant PEB

## Prior Learning

Requirement	Details
Learning Recommendations	It is recommended that students have completed CNWY40090 Introduction to 'Omic' & Advanced Imaging Technologies prior to registering for this module

## Associated Staff

Name	Role
Assoc Professor Gerard Cagney	Lecturer / Co-Lecturer
Dr Tanja Narancic	Lecturer / Co-Lecturer
Professor Stephen Pennington	Lecturer / Co-Lecturer
Mr Mark Crowley	Module Assistant
Dr Eugene Dillon	VLE Access Only
Holger Ebhardt	VLE Access Only
Mr George Moschos-Paipetis	Module Assistant
Ms Elaine Quinn	Module Assistant

## Associated Majors

Programme	Major	Stage	Module Type
DRLSC001 - Doctor of Philosophy (Post 06)	X253 - Translational Med PhD FT	2	Option Module
DRLSC001 - Doctor of Philosophy (Post 06)	X237 - Medicine PhD FT	2	Option Module
DRLSC001 - Doctor of Philosophy (Post 06)	X434 - PublicHlthPhys&Sport Sc PhD PT	1	Option Module
DRLSC001 - Doctor of Philosophy (Post 06)	X238 - Medicine PhD PT	2	Option Module
DRLSC001 - Doctor of Philosophy (Post 06)	X254 - Translational Med PhD PT	2	Option Module
DRLSC001 - Doctor of Philosophy (Post 06)	X810 - PhD Infection Biology(SMMS) FT	2	Option Module
DRLSC001 - Doctor of Philosophy (Post 06)	X811 - PhD Infection Biology(SMMS) PT	2	Option Module
DRLSC001 - Doctor of Philosophy (Post 06)	X254 - Translational Med PhD PT	1	Option Module
MTMED001 - Master of Science-Medicine	X846 - MSc Experimental Physiology FT	1	Option Module



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## Associated Majors (continued)

Programme	Major	Stage	Module Type
DRLSC001 - Doctor of Philosophy (Post 06)	X810 - PhD Infection Biology(SMMS) FT	1	Option Module
DRLSC001 - Doctor of Philosophy (Post 06)	X434 - PublicHlthPhys&Sport Sc PhD PT	2	Option Module
DRLSC001 - Doctor of Philosophy (Post 06)	X811 - PhD Infection Biology(SMMS) PT	1	Option Module
DRLSC001 - Doctor of Philosophy (Post 06)	X253 - Translational Med PhD FT	1	Option Module
DRLSC001 - Doctor of Philosophy (Post 06)	X433 - PublicHlthPhys&Sport Sc PhD FT	1	Option Module
DRLSC001 - Doctor of Philosophy (Post 06)	X433 - PublicHlthPhys&Sport Sc PhD FT	2	Option Module
DRLSC001 - Doctor of Philosophy (Post 06)	X238 - Medicine PhD PT	1	Option Module

For help with the information on this report, please email [curriculum@ucd.ie](mailto:curriculum@ucd.ie)