Masters in Applied Clinical Data Analytics

Handbook 2025-2026

Full Time and Part Time

September 2025

OLLSCOIL NA GAILLIMHE
UNIVERSITY OF GALWAY

Contents

Welcome Messages

Welcome to the MSc in Applied Clinical Data Analytics program at the School of Medicine, University of Galway. We're excited to welcome you onto this course, designed to provide essential training and experience in the rapidly-evolving field of clinical data analytics.

As you embark on this journey with us, you will experience the program's innovative approach to preparing healthcare workers for a career in this dynamic field. We're looking forward to seeing alumni from this course bring cutting edge data analytics into their clinical work.

I encourage you all to fully immerse yourselves in this course and seize every opportunity to gain hands-on experience in applied clinical data analytics within the clinical settings. I also urge you to apply the knowledge you acquire from your modules to your own areas of interest or expertise within clinical data analytics.

Your feedback and experiences will help shape the future of this course. I have every confidence that you will find this course engaging, stimulating, and highly relevant to the healthcare landscape of today and tomorrow.

Dr Conor Judge, BEng, BMBS, MRCPI, PhD

I am delighted to welcome you all to the MSc in Applied Clinical Data Analytics! I look forward to meeting you all in September.

The aim of this program is to provide you with the necessary skills to conduct your own data analysis. It is also vital that you feel part of our network and the wider University of Galway community. Please get touch with me if you have any queries or concerns. You can also connect with us on Twitter and LinkedIn for updates.

Dr Sonja Khan, BSc, MSc, PhD, PGCert (Ed)

Lecturers and Members of Faculty

Dr Finn Krewer PhD BE holds the Greally Lectureship in Applied Clinical Data Analytics and leads the Clinical Data Analytics module and is a supervisor on the MSc ACDA Thesis projects. Finn conducts research in population health data analysis and in the application of artificial intelligence and deep learning in healthcare and healthcare data analysis.

Finn has extensive industry experience in business and clinical data analytics as well as in software development, software architecture and deep learning architecture.

Email: finn.krewer@universityofgalway.ie

Dr. Alvarez has a strong academic background in Statistics and Mathematics, with extensive experience in both collaborative and primary research in Biostatistics. His principal research focus is the development of statistical methodologies that facilitate the communication of complex analytical findings to non-technical audiences, such as patients and policy makers. This includes work on alternative pruning methods for tree-based models and the application of the mean residual life function as an intuitive summary of censored survival data.

Email: alberto.alvarez-iglesias@universityofgalway.ie

Prof Martin O'Donnell is a Stroke Geriatrician, Established Professor of Neurovascular Medicine and Executive Dean of the College of Medicine, Nursing and Health Sciences. His research focus includes cardiovascular epidemiology and clinical prediction rules. He has published over 250 original peer-review articles, including in high-impact journals (Lancet, NEJM, JAMA, BMJ) and H-index is 82 (Scopus). He is Principal Investigator of the international INTERSTROKE study, which has recruited over 27,000 participants from 32 countries. From 2011-2020, he was Director of the HRB-CRFG and is/was PI on several clinical trials (R-BEAT-1, SLEPT trial, COSIP trial and STICK trial).

Email: martin.odonnell@universityofgalway.ie

Prof Andrew Smyth is Professor of Clinical Epidemiology at the University of Galway and Consultant Nephrologist at Galway University Hospitals. He trained in Internal Medicine and Nephrology in Ireland, the Mayo Clinic (USA), and McMaster University (Canada), and holds an MSc and PhD in Clinical Epidemiology from the University of Galway. He is a former Director of the HRB Clinical Research Facility Galway and the MSc in Clinical Research, he continues to teach and develop modules on observational research, clinical trials, systematic reviews, and research ethics.

Email: andrew.smyth@universityofgalway.ie

Honor Griffin is the Innovation and Research Officer managing and supporting Clinical Data Analytics Research and the Neurovascular Research Group. Since joining the MSc ACDA course management team in 2024, Honor has led management of the ACDA course and enabled the course to increase its offering and grow rapidly, becoming the fastest growing course in the College of Medicine, Nursing and Health Sciences.
Email: honor.griffin@universityofgalway.ie

Academic Calendar

Further information on term dates can be found here and a list of Irish Bank Holidays is available here

Academic Year 2025 -2026	
Orientation 1st years	Tuesday 2nd September to Friday 5th September*
Start of teaching all years	Monday 8th September
End of teaching all years	Friday 28th November (12 weeks of teaching)
Study week	Monday 1st December to Friday 5th December
Semester 1 exams start	Monday 8th December
Semester 1 exams end	Friday 19th December (10 days of exams)
Christmas Holiday	Saturday 20th December
2025	
Start of Teaching	Monday 12th January 2026
End of Teaching	Thursday 2nd April (12 weeks of teaching)
Easter	Good Friday 3rd April to Easter Monday 6th April
Study Week	Monday 13th to Friday 17th April
Semester 2 Exams Start	Tuesday 21st April
Semester 2 Exams End	Friday 8th May (13 days of exams)
Autumn Repeat Exams	Tuesday 4th August to Friday 14th August (9 days of exams)
Holidays	Easter: Good Friday 3rd April to Easter Monday 6th April 2026
	Bank Holidays: Monday 27th October 2025 / Tuesday, 17th March 2026
	Monday 4th May 2026/ Monday 1st June 2026 / Monday 3rd August 2026

You are expected to be in attendance through the academic semester and exam periods. If you have commitment requiring you to miss a class, please let the module leaders know immediately so that arrangements can be made.

All non-thesis modules include a 10% component which is awarded based on participation such as discussions during class.

Full Course Structure

Full time MSc or Part time MSc (Applied Clinical Data Analytics)

Students are required to complete three compulsory modules in semester one (MD1590, MD1591 and MD1592) and three compulsory modules in semester two (MD1593, MD1594 and MD1595). There are no optional modules. Modules and research selected will total 90 ECTS credits over 1 year.

Thesis (30 ECTS):
The MSc thesis will be completed and submitted by **31st July 2025.**

		ECTS	Semester
	Compulsory Modules in Semester One:		
MD1590	Health Research Methodology I	10	1
MD1591	Applied Medical Statistics I	10	1
MD1592	Clinical Data Analytics I	10	1
	Compulsory Modules in Semester Two:		
MD1593	Health Research Methodology II	10	2
MD1594	Applied Medical Statistics II	10	2
MD1595	Clinical Data Analytics II	10	2
	Compulsory Research:		
MD1596	Original Research and Thesis	30	Year long
	Total ECTS	**90**	

Semester 1 – Overview

<table>
<tr><th>Time</th><th>Monday</th><th>Tuesday</th><th>Wednesday</th><th>Thursday</th><th>Friday</th></tr>
<tr><td>7.00-8.00</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>8.00-9.00</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>9.00-10.00</td><td></td><td rowspan="2">Health Research Methodology I</td><td></td><td></td><td rowspan="2">Clinical Data Analytics I</td></tr>
<tr><td>10.00-11.00</td><td></td><td></td><td></td></tr>
<tr><td>11.00-12.00</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>12.00-13.00</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>13.00-14.00</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>14.00-15.00</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>15.00-16.00</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>16.00-17.00</td><td></td><td></td><td></td><td rowspan="2">Applied Medical Statistics I</td><td></td></tr>
<tr><td>17:00-18:00</td><td></td><td></td><td></td><td></td></tr>
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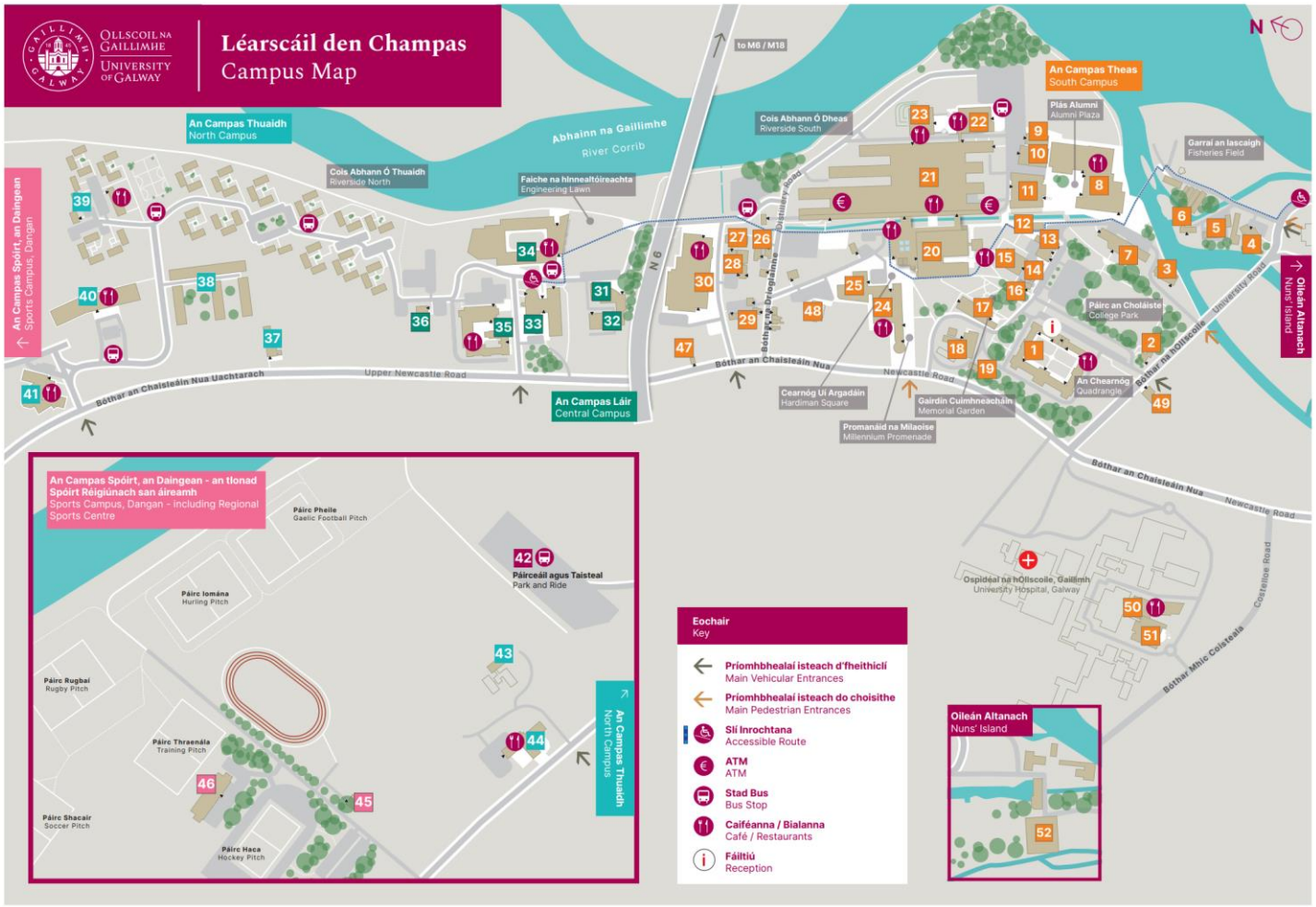
MD1590 Health Research Methodology I — Venue: Small Lecture Theatre, Clinical Sciences Institute
MD1591 Applied Medical Statistics I — Venue: Small Lecture Theatre or Room G007, Clinical Sciences Institute
MD1592 Clinical Data Analytics I — Venue: Room 2011 or Room 2012, Small Lecture Theatre, Clinical Sciences Institute

Semester 2 – Overview

Time	Monday	Tuesday	Wednesday	Thursday	Friday
7.00-8.00					
8.00-9.00					
9.00-10.00		**Health Research Methodology II**			**Clinical Data Analytics II**
10.00-11.00					
11.00-12.00					
12.00-13.00					
13.00-14.00					
14.00-15.00					
15.00-16.00					
16.00-17.00				**Applied Medical Statistics II**	
17:00-18:00					

MD1593	Health Research Methodology II	TBD
MD1594	Applied Medical Statistics II	TBD
MD1595	Clinical Data Analytics II	TBD

Campus Map


Ollscoil na Gaillimhe
University of Galway
Léarscáil den Champas
Campus Map
N
to M6 / M18
An Campas Thuaidh
North Campus
Abhainn na Gaillimhe
River Corrib
Cois Abhann Ó Thuaidh
Riverside North
Faiche na hInnealtóireachta
Engineering Lawn
Cois Abhann Ó Dheas
Riverside South
An Campas Theas
South Campus
Plás Alumni
Alumni Plaza
Garraí an Iascaigh
Fisheries Field
An Campas Spóirt, an Daingean
Sports Campus, Dangan
Upper Newcastle Road
Bóthar an Chaisleáin Nua Uachtarach
Bóthar an Chaisleáin Nua
Newcastle Road
An Campas Lár
Central Campus
Cearnóg Uí Argadáin
Hardiman Square
Gairdín Cuimhneacháin
Memorial Garden
Promanáid na Mílaoise
Millennium Promenade
Páirc an Choláiste
College Park
An Chearnóg
Quadrangle
Bóthar na hOllscoile
University Road
Oileán Altanach
Nuns' Island
Ospidéal na hOllscoile, Gaillimh
University Hospital, Galway
Costelloe Road
Bóthar Mhic Coisteala
An Campas Spóirt, an Daingean - an tIonad Spóirt Réigiúnach san áireamh
Sports Campus, Dangan - including Regional Sports Centre
Páirc Pheile
Gaelic Football Pitch
Páirceáil agus Taisteal
Park and Ride
Páirc Iomána
Hurling Pitch
Páirc Rugbaí
Rugby Pitch
Páirc Thraenála
Training Pitch
Páirc Shacair
Soccer Pitch
Páirc Haca
Hockey Pitch
An Campas Thuaidh
North Campus
Eochair
Key
Príomhbhealaí isteach d'fheithiclí
Main Vehicular Entrances
Príomhbhealaí isteach do choisithe
Main Pedestrian Entrances
Slí Inrochtana
Accessible Route
ATM
ATM
Stad Bus
Bus Stop
Caiféanna / Bialanna
Café / Restaurants
Fáiltiú
Reception
Oileán Altanach
Nuns' Island

Module Descriptions

Health Research Methodology I; MD1590; Semester 1; ECTS 10

Module Leader(s): Prof Martin O'Donnell & Sonja Khan

Brief Description
Health Research Methodology I (MD1590) is a foundational course designed to introduce students to the basics of health research methodology. It focuses on various aspects of clinical research, including common research study designs, principles of Good Clinical Practice, and formulation of effective research questions using PICOT and FINER criteria. Students will also learn about principles of sampling, causation, outcome measures, internal and external validity, and statistical concepts such as sensitivity, specificity, and ROC curves. The goal is to equip students with a well-rounded understanding of health research methodology.

Learning Outcomes

- Define common research study designs and apply the principles of Good Clinical Practice (GCP) to randomised controlled trials and case-control studies.
- Describe the PICOT and FINER criteria for formulation of a research question and construct clinical research questions.
- Identify and interpret the principles of sampling in populations, causation, and different outcome measures in clinical research.
- Identify and justify the principles of internal and external validity, rates, case-fatality, adjusted rates, sensitivity, specificity, positive predictive value, negative predictive value, ROC curve, precision-recall curves, and clinical prediction rules.

Required Materials

- *Designing Clinical Research* (5th Ed.), Eds. Hulley *et al*., 2022, 5rd Edition, and weekly reading from the literature.
- Weekly reading from the literature.

Student Evaluation
Students will have to gain a pass rate of 40% overall for a combination of mid-term exam, end of module exam (date to be confirmed closer to the time), assignments and contribution to tutorials.

Applied Medical Statistics I; MD1591; Semester 1; ECTS 10

Module Leader(s): Dr Conor Judge and Dr Alberto Alvarez

Brief Description
Applied Medical Statistics I (MD1591) is a first-semester course offering in-depth understanding of medical statistics for applied data analysis. Students will learn various statistical methods such as linear regression, logistic regression, among others, and how to apply these methods to research questions in a PICOT format. The course also covers hypothesis testing, understanding of different types of data, and statistical and clinical heterogeneity.

Learning Outcomes

- Design, plan and execute responsible data analysis including generation of a prospective statistical analysis plan to reduce probability of type I and type II errors.
- Justify the link between various statistical methods (linear regression, logistic regression, regression splines, generalised additive models, tree-based methods, support vector machines, principal component analysis, neural networks) and the research questions in a PICOT format.
- Discuss the null hypothesis, hypothesis testing, primary outcome (multiple testing), subgroups, interactions, type 1 and 2 error in the context of various study designs.
- State and justify the different types of tables and figures used in population and public health research papers and recall the concepts related to missing data (at random, completely at random etc.), confidence interval and standard deviation, different types of data (continuous, categorical, missing), statistical and clinical heterogeneity.

Required Materials

- White, Susan. *Basic & Clinical Biostatistics*: Fifth Edition. United States, McGraw Hill LLC, 2019.
- Weekly reading from the literature.

Student Evaluation
Students will have to gain a pass rate of 40% overall for a combination of mid-term exam, end of module exam (date to be confirmed closer to the time), assignments and contribution to tutorials.

Clinical Data Analytics I; MD1592; Semester 1; ECTS 10

Module Leader: Dr Finn Krewer and Dr Conor Judge

Brief Description
Clinical Data Analytics I (MD1593) is a first-semester course that provides students with hands-on experience in data analytics, specifically using the R programming language. This course guides students through installing R and R-packages, importing and tidying data, creating various tables and figures used in population and public health research papers, and conducting statistical tests. Students will learn the principles of tidy data and its significance in linking the structure of a dataset with its semantics.

Learning Outcomes

- Demonstrate the ability to install R, R-Studio, R-packages from CRAN and GitHub, import data from various sources into R-Studio (CSV file, Excel file, online file), convert a dataset to a tidy dataset, plot event metrics using ggplot2 and create the different types of tables and figures used in population and public health research papers.
- Prepare and present the concepts of tidy data and how they provide a standardised way to link the structure of a dataset (its physical layout) with its semantics (its meaning).
- Demonstrate how to perform a statistical test, generate a significance value (P-value), and generate a 2X2 tables using the R programming language.
- Demonstrate how to create a Table 1, Table 2 and subgroup analysis using the R programming language.

Required Materials

- Harrison, Ewen, and Pius, Riinu. *R for Health Data Science*. United Kingdom, CRC Press LLC, 2020.
- Grolemund, Garrett, and Wickham, Hadley. R for Data *Science*: Import, Tidy, Transform, Visualize, and Model Data. United States, O'Reilly Media, 2016.

Student Evaluation
Students will have to gain a pass rate of 40% overall for a combination of mid-term exam, end of module exam (date to be confirmed closer to the time), assignments and contribution to tutorials.

Health Research Methodology II; MD1593; Semester 2; ECTS 10

Module Leader: Prof Martin O'Donnell & Dr Sonja Khan

Brief Description
Health Research Methodology II (MD1594) is an advanced, second-semester module that furthers the student's understanding of health research methodologies. This course delves into more complex aspects of research design, systematic review methodology, and the interplay of data privacy regulations in clinical research. It also introduces students to a spectrum of data analysis approaches from traditional statistical methods to advanced concepts like machine learning and artificial intelligence. This module provides the critical skills and knowledge needed for effective and ethical clinical research in the modern data-driven healthcare landscape.

Learning outcomes

- Define common research study designs and apply the principles of Good Clinical Practice (GCP) to retrospective and prospective cohorts.
- Demonstrate the principles of systematic review methodology including design of systematic search, inclusion/exclusion criteria, forest plots, clinical and statistical heterogeneity.
- Define and justify the principles of GDPR when designing and undertaking clinical research projects.
- Critique various study designs to discern what research questions can be answered with various research designs.
- Synthesize and compose the PICOT criteria for formulation of a research question for systematic review.
- State examples of methodological issues with time and time-varying covariates.
- Contrast the differences between statistics/machine learning/deep learning/artificial intelligence applied to clinical data.

Required Materials

- *Designing Clinical Research* (5th Ed.), Eds. Hulley *et al*., 2022, 5rd Edition, and weekly reading from the literature.
- Weekly reading from the literature.

Student Evaluation
Students will have to gain a pass rate of 40% overall for a combination of mid-term exam, end of module exam (date to be confirmed closer to the time), assignments and contribution to tutorials.

Applied Medical Statistics II; MD1594; Semester 2; ECTS 10

Module Leader(s): Dr Conor Judge and Dr Alberto Alvarez

Brief Description
Applied Medical Statistics II (MD1594) is a second-semester course that delves deeper into the field of medical statistics. This course addresses intricate concepts such as observational research, case-control studies, relative risk, odds ratio, time-to-event parameters, and more. Students will also gain insight into random and fixed effects methods, propensity-matched, and instrumental variable analysis (mendelian randomisation). This module provides an advanced understanding of medical statistics, essential for research in the field.

Learning Outcomes

- Determine the fundamentals of making comparisons in observational research, describe confounding (Identification and conceptual approach to addressing), explain the difference between matched and unmatched analysis in case-control studies.
- Differentiate relative risk, odds ratio, time-to-event (Hazard ratio), proportional hazards, reverse causation and selection bias.
- Summarise random and fixed effects methods, propensity-matched, and instrumental variable analysis (mendelian randomisation).

Required Materials

- White, Susan. *Basic & Clinical Biostatistics*: Fifth Edition. United States, McGraw Hill LLC, 2019.
- Weekly reading from the literature.

Student Evaluation
Students will have to gain a pass rate of 40% overall for a combination of mid-term exam, end of module exam (date to be confirmed closer to the time), assignments and contribution to tutorials.

Clinical Data Analytics II; MD1595; Semester 2; ECTS 10

Module Leader(s): Dr Finn Krewer and Dr Conor Judge

Brief Description
Clinical Data Analytics II (MD1595) is an advanced, second-semester course that extends the use of the R programming language in clinical data analysis. This course focuses on in-depth techniques such as multivariable analysis, logistic regression, multilevel modelling for observational studies, and the applications of deep learning frameworks in natural language processing and computer vision. It also covers practical skills like version control with GitHub and R-Studio, and meta-analysis techniques including forest plot creation using the metafor package in R. This module is a comprehensive exploration of advanced clinical data analytics.

Learning Outcomes

- Demonstrate how to perform multivariable analysis, logistic regression, multilevel modelling for observational studies, create a spline, using the R programming language.
- Demonstrate how to perform Natural Language Processing, Classification, Computer Vision using deep learning frameworks in the R programming language.
- Demonstrate how to version control code with GitHub and R-Studio.
- Develop a meta-analysis and generate a forest plot using the metafor package in R.

Required Materials

- Harrison, Ewen, and Pius, Riinu. *R for Health Data Science*. United Kingdom, CRC Press LLC, 2020.
- Grolemund, Garrett, and Wickham, Hadley. R for Data *Science*: Import, Tidy, Transform, Visualize, and Model Data. United States, O'Reilly Media, 2016.

Student Evaluation
Students will have to gain a pass rate of 40% overall for a combination of mid-term exam, end of module exam (date to be confirmed closer to the time), assignments and contribution to tutorials.

THESIS; MD1596; MD1597; Compulsory (FT) or (PT) Module; ECTS 30

Module Leader(s): Dr Finn Krewer & Dr Conor Judge

Brief Description
Students will participate in an Applied Clinical Data Analytics project. The aim of this module is to enable students to develop deeper knowledge, understanding, capabilities and attitudes in the context of the programme of study. The thesis should be written at the end of the programme and offers the opportunity to delve more deeply into and synthesise knowledge acquired in previous studies. A list of potential supervisors and associated projects will be distributed in October/ November, students can list top 3 projects. Every effort will be made to accommodate student choices. Alternatively, students can also select their own supervisor and project.

Learning Outcomes

- Creation of a thesis including abstract, introduction, background/rationale, methods, results/findings, conclusion/discussion, and references/bibliography.
- Apply the principles of Good Clinical Practice and GDPR for thesis completion.
- Apply the PICOT and FINER criteria for thesis completion.
- Develop reproducible research methodology for thesis completion.
- Create different types of tables and figures to answer a research question for thesis completion.

Thesis marking criteria

Aspect of Thesis	Criteria
Research Aims and Purpose	Clarity of statement of rationale, aims and research questions. Ability to position topic with context of relevant literature and/or policy/practice concerns
Relevant and supporting Literature	Thoroughness of the description of the field, drawing on a range of appropriate sources. Capacity to offer critical appraisal of the field including identification of gaps.
Methodology and Data Analysis	Appropriateness of choice of research design. Effectiveness of use of methodological literature to support design. Adequacy of description and justification of research process. Coherence of data analysis and relationship to research question. Clarity regarding ethical approval process.
Results/ Findings	Clarity in presentation of findings/results. Relevance to stated research question and specified objectives. Effectiveness of use of supporting data (e.g. tables, figures, quotes). Use of editing to balance need for comprehensiveness and succinctness.
Discussion and Conclusion	Capacity to make sense of findings in light of research questions. Ability to interpret findings in the context of relevant literature. Ability to identify implications. Capacity for reflection and critical exploration of relevant ethical issues. Acknowledgement of methodological scope and limitations.
Overall Style of Writing	Clarity and flow of argument. Fluency and accuracy of writing. Coherence of structure and layout. Accuracy of referencing.

Additional Information

- The Thesis study word count max. 10,000 words. Submissions that are more than 10% over the word count will be returned to the student for editing.
- Students will be provided feedback on thesis writing throughout semester 1 and 2.

- Thesis should be submitted to Canvas by the 31st July each year.
- A dissertation will be judged to have been submitted when the electronic copy has been submitted to Canvas in the correct assignment.

Failure to submit thesis by the deadline will result in additional payment of fees. Further information is available from UoG Examinations and Fees Office.

Marks and Standards

MSc Applied Clinical Data Analytics – Full Time; 1 Year (12 months)

Level 9
Mode of study: Taught
90 ECTS

Results will be returned at Level 1
Honours awarded at the overall level; Honours awarded in the 1st sitting

- H1 >70%
- Upper H2 60-69%
- Lower H2 50-59%
- 3rd class H 40-49%
- Fail <40%

Students will have to gain a pass rate of 40% overall, for each subject.

M.Sc. Applied Clinical Data Analytics – Part Time; 2 Year (24 months)

Level 9
Mode of study: Taught
90 ECTS over 2 years

Results will be returned at Level 1
Pass/Fail only at the overall level in Year 1, Honours awarded at the overall level in Year 2; Honours awarded in the 1st sitting

Students must have passed the equivalent of at least 30ECTS before progression to Year 2.

- H1 >70%
- Upper H2 60-69%
- Lower H2 50-59%
- 3rd class H 40-49%
- Fail <40%

Students will have to gain a pass rate of 40% overall, for each subject.

Useful Information

General Enquiries and response time

For any enquiries or concerns you may have during your time on the program, please contact the Course Directors or Course Coordinator, using the email address clinicaldataanalytics@universityofgalway.ie. Request for references or similar formal documents need to be made well in advance, least 2 weeks' notice is required and to be made in writing. Provide clear description of the matter in the subject line.

University of Galway Code of Conduct

Please familiarise yourselves with the University of Galway Code of Conduct, procedures associated with examinations and assessment and other important matters. All students should read this document https://www.universityofgalway.ie/media/studentservices/files/Student-Code-of-Conduct.pdf

Attendance Guidelines

All students are expected to attend lectures, tutorial and workshops. These classes are critical for supporting progress. In the event of illness causing a student to miss a class, please inform the course coordinator. Students who miss classes are responsible for updating themselves on any information provided during those classes. Dates and deadlines associated with this course are subject to change therefore students must plan on being present and available for the whole semester.

Deadline/Deadline Extensions Guidelines

Each assessed work will have a submission deadline. **If work is handed in after a deadline it will either (a) not be marked or (b) will be subject to a penalty. A deadline extension will only be given in exceptional circumstances and MUST be negotiated ahead of the deadline.**

A deadline extension may be given if a student is affected by illness or other personal difficulties, in the case of a medical condition, the student will normally be required to submit a note from his/her doctor. A deadline must be negotiated with the originator of the assessment and the course coordinator must also be informed of the deadline extension.

Plagiarism Guidelines

Each student is responsible for ensuring that all work is handed in for assessment is his/her own. Plagiarism is the act of copying, including or directly quoting from the work of another without adequate acknowledgement, in order to obtain benefit, credit or gain. Plagiarism can apply to many materials, such as words, ideas, images, information, data, approaches or methods. Sources of University of Galway Plagiarism can include books, journals, reports, websites, essay mills, another student, or another person.

Self-plagiarism, or auto-plagiarism, is where a student re-uses work previously submitted to another course within the University or in another Institution.

All work submitted by students for assessment, for publication or for (public) presentation, is accepted on the understanding that it is their own work and contains their own original contribution, except where explicitly referenced using the accepted norms and formats of the appropriate academic discipline.

How can Plagiarism be avoided?

Most cases of plagiarism can be avoided by citing your sources. Simply acknowledging that certain material has been borrowed, and providing your reader with the information necessary to find that source, is usually enough to prevent plagiarism. See below on 'Referencing' for information on how to cite properly.

Changing the words of an original source is not sufficient to prevent plagiarism. If you have retained the essential idea of an original source, and have not cited it, then no matter how drastically you have altered its context or presentation, you have still plagiarised.
If you use a direct quotation from another source (using their words exactly), you must enclose it in "quotation marks" and quote the source, giving the page number.

How can plagiarism be detected?

All coursework you submit for assessment will be automatically submitted to "Turnitin", a plagiarism detection software programme which compares submitted work with hundreds of thousands in their database, as well as internet sites. **You are strongly advised to submit a draft of any assignment/thesis to Turnitin to determine its originality and to take corrective action, if necessary, before submitting the final version.**

What are the consequences of plagiarism?

The HRB Clinical Research Facility complies with the procedures outlined in the university policy on plagiarism at http://www.universityofgalway.ie/plagiarism/
Penalties may include automatic failure or disciplinary procedures.

The information above has been adapted from Turnitin

How to access e-journals through the library

http://library.universityofgalway.ie/

Access to current literature will be required during this MSc course, for reports, projects and for the thesis/independent study. The Library at University of Galway can provide access to the full text of many articles, including journals which are not held as paper copies.

1. Go to the University of Galway Library website
2. Click on Resources
3. Go to the Quick access section on right hand side of the screen
4. Click on: I want to…..Search for a journal
5. A basic search page will appear
6. At the top of the page click on Find e journal
7. Type the title of the journal into the box and click go
8. The journal title will appear on the screen along with a red SFX button
9. Click on this and the journal tile will appear with a blue E box beside it.

10. Click on this and you will have access to the full text journal.

If you need any further help please contact the library staff:
Cassidy, Mary
Medical Library / Library & IT Service Desk Assistant
Email: mary.cassidy@universityofgalway.ie
Tel: +353 91493601

Student Services

Using the Library

The library at University of Galway can provide access to the full text of many articles, including journals which are not held as paper copies. You can access this material in the library, on campus and from home if you login to the system appropriately. The library webpage have some excellent 'how to' advice, which are a great place to start orienting yourself.

Career Development Centre

The University of Galway Career Development Centre is a useful resource; I suggest you avail of the many workshops and mentoring opportunities they provide. They can give you help finding and applying for jobs, for PhD positions and for obtaining funding for research positions. They will also give advice about preparing an effective cover letter and *curriculum vitae*.

Academic Writing Centre

Many learners find writing assignments challenging; particularly if they have not written for some time. The Academic Writing Centre can provide support for students who feel that they have a recurrent problem with grammar, punctuation, spelling, or essay structure. They offer free one-on-one teaching sessions on campus tailored to your needs. You can find out more information about the service including contact details via this link. That link also includes some helpful links including video tutorials.

Contact Details

All course related queries should be directed to our dedicated MSc in Applied Clinical Data Analytics email (clinicaldataanalytics@universityofgalway.ie).

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