

Research Integrity (Ireland) – Modules

Module	Screens	Learning Objectives
Responsible Research Practice (25 mins)	<ul style="list-style-type: none"> - Introduction - Basic principles - Discipline-specific responsibilities - Institutional responsibilities - Public responsibilities - Application 	<ul style="list-style-type: none"> - Explain the relationship between the responsible conduct of research and research integrity - List the basic principles used in Ireland to judge responsible research practice - Identify sources of guidance on professional responsibility in your field of research - Explain the role of institutions in promoting responsible research practice - Explain how researchers' public responsibilities are developed and implemented.
Irresponsible Research Practice (23 mins)	<ul style="list-style-type: none"> - Introduction - Characterising irresponsible behaviour - Misconduct vs unacceptable research practices - Artificial intelligence & responsible research practices - The impact of irresponsible practice - Reporting irresponsible research practice - Application 	<ul style="list-style-type: none"> - Describe and provide examples of the two approaches that governments and organisations worldwide have taken in defining and responding to irresponsible conduct in research - Explain how irresponsible conduct is defined and handled in Ireland - Be aware of the questions you should ask yourself to avoid irresponsible research practice, including irresponsible use of artificial intelligence (AI) tools - Explain the difference between unacceptable research practices and misconduct - Discuss the impact of irresponsible practice on research - Identify the steps to be taken to report irresponsible behaviour in research.
Planning Your Research (28 mins)	<ul style="list-style-type: none"> - Introduction - Research plans - The use and misuse of research plans - Research governance approvals - Agreements - The consequences of poor planning - Application 	<ul style="list-style-type: none"> - Describe the common elements of a research plan - Discuss the importance of research plans and identify how others might use your research plan - List the types of research governance approval that could be required before beginning a research project, and describe the implications of not having approvals in place - Explain the reasons for and types of agreements that should be in place before beginning a research project - Illustrate some of the problems that could arise if a research project is not properly planned.
Managing and Recording Your Research (36 mins)	<ul style="list-style-type: none"> - Introduction - Project management - The importance of a research record - The format and content of research records - Validation 	<ul style="list-style-type: none"> - Be able to create a project management checklist to summarise the main responsibilities in your research project and identify potential problems - Describe the purpose and importance of keeping a record of your research - Explain what is required to keep a record that will validate your findings and allow others to replicate your work

	<ul style="list-style-type: none"> - Data storage and retention - Data ownership, protection and sharing - Application 	<ul style="list-style-type: none"> - Know and apply the basic standards for storing, protecting and sharing research data.
Data Selection, Analysis and Presentation (33 mins)	<ul style="list-style-type: none"> - Introduction - Data selection - Data analysis - Guiding principles in data protection - Data presentation in practice: Writing - Data presentation in practice: Tables, charts and graphs - Data presentation in practice: Images - Application 	<ul style="list-style-type: none"> - Identify responsible and irresponsible practices in data selection - Describe the role of analysis in the responsible conduct of research - Explain the principles underpinning best practice in data presentation - Provide examples of irresponsible practices that researchers have used when selecting, analysing and presenting results.
Scholarly Publications (40 mins)	<ul style="list-style-type: none"> - Introduction - Preparing to publish - Journal selection - Drafting your manuscript - Assigning authorship - Avoiding plagiarism - Submission and review - Post-publication responsibilities - Application 	<ul style="list-style-type: none"> - Discuss the factors that should be considered when making decisions on when and how to publish - Identify key factors that should be considered when selecting a journal - Summarise the key elements that need to be considered when drafting a scholarly publication - Summarise the basic principles for assigning authorship and acknowledging the contributions of others - Illustrate the different types of plagiarism and how to avoid plagiarism - Explain how scholarly publications are submitted and reviewed - Identify and explain the key post-publication responsibilities authors have.
Professional Responsibilities (30 mins)	<ul style="list-style-type: none"> - Introduction - Mentors and mentees - Individual responsibilities in teams and collaborations - Considerations for larger collaborations - Best practices in peer review - Irresponsible practices in peer review - Application 	<ul style="list-style-type: none"> - Set out the responsibilities that supervisors, students and researchers have when they enter into a mentoring relationship - Explain the responsibilities of individual researchers engaged in teamwork/collaborations - Explain the additional responsibilities that can emerge when researchers are involved in larger scale teams/collaborations - Discuss the primary responsibilities of peer reviewers and provide examples of the ways in which these responsibilities can be compromised.

Communication, Social Responsibility and Impact (35 mins)	<ul style="list-style-type: none"> - Introduction - Broader responsibilities - Responsible communication - Working with colleagues - Working with the public - Impact - Upholding high standards - Application 	<ul style="list-style-type: none"> - Identify the broader roles researchers can take on over the course of a career and the special responsibilities that come with these roles - Discuss the challenges researchers face when identifying their audience and developing plans for research communications - Illustrate the ways in which poor working relationships between professionals engaged in broader service can be detrimental to research - Explain why it is important for researchers to separate their personal positions from their professional views when communicating their research - Explain what is meant by 'impact' and the different views on how impact should be assessed.
Supplementary Modules		
Conflicts of Interest (25 mins)	<ul style="list-style-type: none"> - Introduction - Identifying your interests - Disclosing conflicts of interest - Handling conflicts of interest in Ireland - Institutional policies - What can go wrong? - Application 	<ul style="list-style-type: none"> - Recognise the importance of disclosing conflicts of interest - Define and give examples of conflicts of interest - Describe when and how conflicts of interest should be reported - Explain how conflicts of interest are handled in Ireland - Explain the expectations that institutions have in relation to conflicts of interest - Give examples of the consequences of not reporting conflicts of interest.
Research Involving Human Participants (34 mins)	<ul style="list-style-type: none"> - Introduction - Guiding principles - Irish policies and processes - Review and approval - Preparing for review - Ethical considerations - Continuing responsibilities - What can go wrong? - Application 	<ul style="list-style-type: none"> - Describe the origin and purpose of the guiding principles set out in the major codes of the conduct of research involving human participants - Explain why research involving human participants requires independent review and approval before the research study begins - List the key information researchers are expected to provide as part of the independent review of research involving human participants - Describe how research which involves human participants is reviewed and approved in Ireland - Explain what is meant by an 'ethical' study and the primary concerns that research ethics committees (RECs) address when making judgements about the ethics of studies - Summarise the continuing responsibilities researchers have once a project is approved - Outline the major challenges in ensuring that human participants in research are protected.
The Care and Use of Animals in Research (30 mins)	<ul style="list-style-type: none"> - Introduction - Basic responsibilities 	<ul style="list-style-type: none"> - Summarise the four basic responsibilities researchers have for the care and use of animals in research

	<ul style="list-style-type: none"> - The 3Rs - Irish care and use policies - Institutional policies and arrangements for animal welfare - Continuing responsibilities - Examples of problems and poor practice - Application 	<ul style="list-style-type: none"> - Summarise the four basic responsibilities researchers have for the care and use of animals in research - Describe the purpose and content of the 3Rs (replacement, reduction, refinement) - Discuss the role and purpose of institutional Animal Welfare Body (AWB) and government regulation of experiments using live animals (via the Health Products Regulatory Authority (HPRA)) - Summarise the information that could be called for when you are seeking authorisation for a project - List some of the continuing responsibilities researchers have after receiving REC approval or HPRA authorisation when conducting research with animals - Explain why it is important to take public attitudes into consideration when conducting research that involves the use of animals.
Intellectual Property (26 mins)	<ul style="list-style-type: none"> - Introduction - Copyright - Patents - Ownership of intellectual property - Irish intellectual property policies - Intellectual property issues and problems - Application 	<ul style="list-style-type: none"> - Define 'intellectual property' as it relates to research - Explain when and how researchers can copyright their research - Explain when and how researchers can patent their research - Discuss some of the limitations on intellectual property protection in research - Explain the steps that should be taken to establish ownership of intellectual property - Explain how intellectual property is managed in Ireland - Provide examples of the emerging issues associated with copyright and the patent protection of research.
An introduction to Export Controls (20 mins)	<ul style="list-style-type: none"> - Introduction - Export controls and foreign interference - Coverage - Advice and institutional support - Export control policies in Ireland - What can go wrong? - Application 	<ul style="list-style-type: none"> - Explain the purpose of export controls and their role in research - Describe and provide examples of the major ways in which research could be subject to export controls - Summarise the steps researchers should follow to identify and manage export controls - Explain how export controls that could apply to your research are governed and administered in Ireland and at your institution - Provide examples of how export controls affect researchers and some of the consequences of failing to comply.