Institiúid Teicneolaíochta Chorcaí
Cork Institute of Technology

POLA9001: Research Ethics in theSciences

Module Details

Short Title:	Research Ethics in theSciences APPROVED
Full Title:	Research Ethics in the Sciences

Module Code:	POLA9001	**NFQ Level:**	Expert	**ECTS Credits:**	5.0

Valid From:	Semester 1 - 2014/15 (September 2014)
Module Coordinator:	Niall Smith
Module Author:	SIOBHAN O SULLIVAN
Description:	This module will examine the ethical issues which arise in the context of conducting science research involving human and animal participants. Learners will develop knowledge of and articulacy in ethical argumentation and be able to discover and analyse the ethical aspects of their research work. Issues discussed will include respect for participants, consent and confidentiality, product validation, challenges in research ethics, emerging issues in ethical research, codes of conduct and applying for approval to a Research Ethics Committee for a research project.

Learning Outcomes:

On successful completion of this module the learner will be able to

1. Evaluate and discuss the history of ethics in research and its contemporary impact.
2. Explore and critique current national and international guidelines and legislation in the ethics of research involving humans and animals.
3. Apply and critically discuss common ethical principles in science and engineering research.
4. Identify and justify the code of ethics employed by professional bodies.
5. Complete a satisfactory Research Ethics Committee form applying for approval for a research project
6. Describe the steps involved in the design of a trial/product test protocol.

Pre-requisite learning

Module Recommendations

This is prior learning (or a practical skill) that is strongly recommended before enrolment in this module. You may enrol in this module if you have not acquired the recommended learning but you will have considerable difficulty in passing (i.e. achieving the learning outcomes of) the module. While the prior learning is expressed as named CIT module(s) it also allows for learning (in another module or modules) which is equivalent to the learning specified in the named module(s).

No recommendations listed

Incompatible Modules

These are modules which have learning outcomes that are too similar to the learning outcomes of this module. You may not earn additional credit for the same learning and therefore you may not enrol in this module if you have successfully completed any modules in the incompatible list.

No incompatible modules listed

Requirements

This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed. You may not enrol on this module if you have not acquired the learning specified in this section.

No requirements listed

Co-requisites

No co-requisites listed listed

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Module Content & Assessment

Indicative Content
• **History of ethics and important ethical concepts** History of ethics in research. Terminology: participants/respondents, consent and assent, ethics and research aims. Moral justification of research. Situations where engaging in research may be ethically undesirable. Exploitation and power relationships, responsibilities of researchers to fellow researchers, respondents, the public and the academic community. Privacy, sensitivity, deception, anonymity, confidentiality, privacy in relation to institutions and organizations, complaint rights and procedures, conflict of interest,risk assessment, the storage of data, data protection, handling or management of incidental findings, scientific misconduct.
• **The funding and sponsorship of research** Review of the main regulatory agencies at national and international level which oversee clinical research. The role of ethics committees and boards. Obtaining relevant permission to conduct research. Reaching agreement with institutions or organizations in which research will be conducted. Ethics and funding agreements. The ethics of research contracts. Intellectual ownership. Regulatory frameworks and research governance.
• **A review of clinical trials/Product testing and validation** The steps involved in the setting up of a clinical trial/product testing protocol: the budget, documentation, participant recruitment, handling and transport of samples, data recording, management and confidentiality. Ethical treatment of participants. The 3Rs in animal research. The politicisation of research ethics (control systems, who deems what is ethical/unethical, whistleblowing, conflict of interest. Good professional practice.
• **The role of the researcher** Representation of research findings to non-researchers. Recognition of the value of different research methodologies. Consultation with peers on complex ethical issues. The benefits and disadvantages of being a research participant. Trying to resolve ethical dilemmas in research.
• **The publication and dissemination of research** Different audiences for research reports and findings. Editorial procedures in academic journals. Plagiarism. Establishing authorship. Acting as a reviewer of academic material. Acknowledging the limitations of research conclusions.

Assessment Breakdown	**%**
Course Work	100.0%
End of Semester Formal Examination	0%

Coursework Breakdown

Type	*Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Other	Review a series of case studies from trials/product tests in terms of compliance and adherence to protocol. Complete a research ethical risk assessment relating to a potential research design.	2,3,6	25.0	Week 3
Written Report	Write a comprehensive detailed report to your college ethics committee requesting permission to conduct a piece of research.	2,5	25.0	Week 6
Other	Design a clinical/product trial which adheres to and complies with national or international regulatory bodies.	1,2,3,6	50.0	Sem End

Reassessment Requirement
Coursework Only *This module is reassessed solely on the basis of re-submitted coursework. There is no repeat written examination.*

The institute reserves the right to alter the nature and timings of assessment

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Module Workload & Resources

Workload	**Full-time**			
Type	*Description*	*Hours*	*Frequency*	*Average Weekly Learner Workload*
Lecturer-Supervised Learning (Contact)	Workshop	6.0	Every Second Week	3.00
Lecturer Supervised Learning (Non-contact)	Self-directed learning	4.0	Every Week	4.00
			Total Weekly Learner Workload	7.00
			Total Weekly Contact Hours	3.00

Workload	**Part-time mode**			
Type	*Description*	*Hours*	*Frequency*	*Average Weekly Learner Workload*
Lecturer-Supervised Learning (Contact)	Workshop	6.0	Every Second Week	3.00
Independent & Directed Learning (Non-contact)	Self-directed learning	4.0	Every Week	4.00
			Part-Time Total Weekly Learner Workload	7.00
			Part-Time Total Weekly Contact Hours	3.00

Resources

Recommended Book Resources

- **Paul Oliver 2010, *The student's guide to research ethics*, 2nd Ed., McGraw-Hill/Open University Press Maidenhead [ISBN: 978-0335237975]**
- **Ana Smith Iltis (Editor) 2008, *Research Ethics*, 1st Ed., Routledge [ISBN: 978-0415472975]**
- **Stephen Potter (Editor) 2006, *Doing Postgraduate Research*, 2nd Ed., 9, SAGE [ISBN: 978-1412924054]**
- **[edited by] Tony Long, Martin Johnson 2007, *Research ethics in the real world*, 1st Ed., Churchill Livingstone/Elsevier Edinburgh [ISBN: 978-0-443-10065-9]**

Supplementary Book Resources

- **Rebecca Skloot, 2010, *The Immortal Life of Henrietta Lacks*, 1st Ed., Macmillan [ISBN: 978-0230748699]**
- **by D. Beyleveld, D. Townend and J. Wright 2005, *Research ethics committees, data protection, and medical research in European countries*, Ashgate Publishing Limited [ISBN: 978-0754643500]**
- **National Research Council of the National Academies 2004, *Science, medicine, and animals*, National Academies Press [Washington, DC [ISBN: 978-0309088947]**

Recommended Article/Paper Resources

- **Department of Health and Children & Office of the Minister for Children and Youth Affairs 2012, *Health Information Bill 2012, Children's Research and Ethical Review, Executive Summary*, The National Children's Research Series**
- **Department of the Minister for Children and Youth Affairs 2012, *Guidance for developing ethical research projects involving children***
  http://www.dcya.gov.ie/documents/Publications/Ethics_Guidance.pdf
- **Data Protection Commissioner 2003, *Data Protection Acts 1988 and 2003;A Guide for Data Controllers***
  www.dataprotection.ie
- **The Psychological Society of Ireland 2011, *Code of Professional Ethics***
  info@psihq.ie

Supplementary Article/Paper Resources

- **Health Information and Quality Authority 2012, *n/a*, International Review of Research Ethics Structures**
  www.hiqa.ie