APPROVED

DATA C9006: Ethics in Data Analytics

Module Details

Module Code:	DATA C9006
Full Title:	Ethics in Data Analytics APPROVED
Valid From::	Semester 1 - 2019/20 (June 2019)
Language of Instruction:	English
Duration:	1 Semester
Credits::	5
Module Owner::	Rajesh Jaiswal
Departments:	Unknown
Module Description:	This module aims to provide an understanding of the moral and ethical considerations in Data Analytics life cycle. The module provides framework to analyze ethical concerns related to collecting, analyzing and managing big-data. Completing this module will enable students to comprehend the ethical, social and legal implications related to the data ownership, privacy, security and use with informed consent.

Module Learning Outcome	
On successful completion of this module the learner will be able to:	
#	**Module Learning Outcome Description**
MLO1	Critic about morality and etiquette, law, and professional codes of conduct
MLO2	Recognize and classify ethical issues that arise in Data Analytics
MLO3	Construct an ethical argument, recognize fallacies, and debate ethical trade-off rationally based on the data analytics framework

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 DkIT 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

Module Indicative Content
Introduction History of ethics in Computing, Growth of big data, Development of ethical issues
Ethics and Ethical Analysis Ethical theories, ethical reasoning and decision making, and codes of ethics, ACM Code of Ethics and Professional Conduct
Ethical and legal framework for Data Analytics life cycle Digital divide, Anonymity, Privacy, Security, GDPR, Ownership, Consent and Data Governance
Ethical issues Case studies related to Data analytics, qualitative and/or quantitative analysis

Module Assessment

Assessment Breakdown	%
Course Work	50.00%
Final Examination	50.00%

Module Special Regulation

Assessments

Full-time

Course Work

Assessment Type	Presentation	**% of Total Mark**	25
Marks Out Of	100	**Pass Mark**	40
Timing	Every Week	**Learning Outcome**	2,3
Duration in minutes	0		

Assessment Description
CA1- one debate every week discussing the case studies related to ethics in data analytics

Assessment Type	Written Report	**% of Total Mark**	25
Marks Out Of	100	**Pass Mark**	40
Timing	S1 Week 8	**Learning Outcome**	1,2,3
Duration in minutes	0		

Assessment Description
CA2 - One proposal of recent ethical issue in the field of Data Analytics and the corresponding written report containing ethical, social and legal implications

No Project

No Practical

Final Examination

Assessment Type	Formal Exam	**% of Total Mark**	50
Marks Out Of	100	**Pass Mark**	40
Timing	End-of-Semester	**Learning Outcome**	1,2,3
Duration in minutes	120		

Assessment Description
End of Module Examination covering all the learning outcomes

Part-time

Course Work

Assessment Type	Presentation	**% of Total Mark**	25
Marks Out Of	100	**Pass Mark**	40
Timing	Every Week	**Learning Outcome**	2,3
Duration in minutes	0		

Assessment Description
CA1- one debate every week discussing the case studies related to ethics in data analytics

Assessment Type	Written Report	**% of Total Mark**	25
Marks Out Of	100	**Pass Mark**	40
Timing	S1 Week 8	**Learning Outcome**	1,2,3
Duration in minutes	0		

Assessment Description
CA2 - One proposal of recent ethical issue in the field of Data Analytics and the corresponding written report containing ethical, social and legal implications

No Project

No Practical

Final Examination

Assessment Type	Formal Exam	**% of Total Mark**	50
Marks Out Of	100	**Pass Mark**	40
Timing	End-of-Semester	**Learning Outcome**	1,2,3
Duration in minutes	120		

Assessment Description
End of Module Examination covering all the learning outcomes

Reassessment Requirement
A repeat examination *Reassessment of this module will consist of a repeat examination. It is possible that there will also be a requirement to be reassessed in a coursework element.*

DKIT reserves the right to alter the nature and timings of assessment

Module Workload

Workload: Full-time					
Workload Type	*Contact Type*	*Workload Description*	*Frequency*	*Average Weekly Learner Workload*	*Hours*
Lecture	Contact	To cover theory of ethics in Data Analytics	Every Week	1.00	1
Lecturer-Supervised Learning (Contact)	Contact	Debates on ethical issues	Every Week	1.00	1
Directed Reading	Non Contact	Lecture notes, books and online materials	Every Week	2.00	2
Independent Study	Non Contact	Lecture notes, books and online materials	Every Week	4.00	4
				Total Weekly Learner Workload	8.00
				Total Weekly Contact Hours	2.00

Workload: Part-time					
Workload Type	*Contact Type*	*Workload Description*	*Frequency*	*Average Weekly Learner Workload*	*Hours*
Lecture	Contact	To cover theory of ethics in Data Analytics	Every Week	1.00	1
Lecturer-Supervised Learning (Contact)	Contact	Debates on ethical issues	Every Week	1.00	1
Directed Reading	Non Contact	Lecture notes, books and online materials	Every Week	2.00	2
Independent Study	Non Contact	Lecture notes, books and online materials	Every Week	4.00	4
				Total Weekly Learner Workload	8.00
				Total Weekly Contact Hours	2.00

Module Resources

Recommended Book Resources

(2013), Ethical and Social Issues in the Information Age, 5th Edition. Springer, [ISBN: 971447159728].

Michael J Quinn. (2015), Ethics for the Information Age, 6th Edition. Pearson.

O'Neill, Kathy. (2017), Weapons of Math Destruction, 1st. Penguin.

Recommended Article/Paper Resources

European Commission. Ethics for researchers, http://ec.europa.eu/research/participant s/data/ref/fp7/89888/ethics-for-research ers_en.pdf

Other Resources

Website, Data Protection in ireland, https://www.dataprotection.ie/en/legal/d ata-protection-legislation