MODULE DESCRIPTOR

Module Title

Engineering and the Environment

Reference	EN3591	Version	1
Created	March 2023	SCQF Level	SCQF 9
Approved	August 2023	SCQF Points	15
Amended		ECTS Points	7.5

Aims of Module

To provide the student with a comprehensive understanding of inclusive, ethical engineering, environmental risk assessment, and sustainability security, ensuring legal compliance.

Learning Outcomes for Module

On completion of this module, students are expected to be able to:

1	Demonstrate a critical understanding of the scope of equality, diversity and inclusion in engineering practice.
2	Assess the scope and purpose of corporate ethics in engineering projects.
3	Demonstrate essential environmental risk assessment and management processes in engineering projects, including relevant legal matters.
4	Review the security risks of global sustainability and associated mitigation methods.

Indicative Module Content

Environmental Policy in the UK, the role of business leaders, stakeholders, NGO's, community leaders and government (Local Authority, National and International agendas); the regulatory framework (EPA 1990, EA 1995, Integrated Pollution Control, EIA Directive) and legal compliance; environmental risk management, environmental indicators. Classifying impact (environment, economic, social, political). Quantitative and qualitative approaches to environmental resources and environmental impacts. Environmental impact management and assessment techniques, Planning and decision-making in the project development process. Environmental Hazard and Risk Assessment Introductory overview, energy and sustainability, present energy sources, renewable energy sources. Energy utilisation, forms of energy Classification of impact of energy use by source, pollutant, scale (household, community, regional, global) An analysis of the scope and purpose of corporate ethics, examining what it is, why do it and, does it work? An examination of moral issues in business; why 'good' managers make bad ethical choices; case studies. An examination of the theoretical underpinning which supports ethical decision-making. Biases and prejudices in the workplace and towards consumers, under-represented groups, discrimination factors, inclusive culture of attitudes and behaviours, strategies to leverage equal inclusive messages, legal compliance.

Module Delivery

Full-time students: This module is delivered by a combination of lectures and tutorials. Part-time students: This module is delivered by a combination of lectures and tutorials online. It will be supported by drop-in evening sessions online.

Indicative Student Workload

	Full Time	Part Time
Contact Hours	35	35
Non-Contact Hours	115	115
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	150
Actual Placement hours for professional, statutory or regulatory body		

ASSESSMENT PLAN

If a major/minor model is used and box is ticked, % weightings below are indicative only.

Component 1

Type:	Coursework	Weighting:	100%	Outcomes Assessed:	1, 2, 3, 4
Description:	A portfolio of evidence				

MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

Component 1 comprises 100% of the module grade. To pass the module, a D grade is required.

Module Grade	Minimum Requirements to achieve Module Grade:
A	A
B	B
C	C
D	D
E	E
F	F
NS	Non-submission of work by published deadline or non-attendance for examination

Module Requirements

Prerequisites for Module	None.
Corequisites for module	None.
Precluded Modules	None.

INDICATIVE BIBLIOGRAPHY

1 Hundloe, T. J. A. (Torstein John Arneson),Environmental Impact Assessment Incorporating Sustainability Principles. 2021 Palgrave Macmillan

2 Crane, A., Matten, D., Glozer, S., & Spence, L., 2019 Business Ethics (5th Edition). Oxford University Press Academic UK.

3 Mele, D., 2019 Business Ethics in Action: Managing Human Excellence in Organisations (2nd Edition). Bloomsbury.

4 Haggar, Salah el-; Samaha, Aliaa, Roadmap for global sustainability : rise of the green communities 2019. Part of the Advances in Science, Technology & Innovation Series. Springer

5 KARIWO, M.T., ASADI, N. and EL BOUHALI, C., 2019. Interrogating Models of Diversity Within a Multicultural Environment. Cham: Springer International Publishing AG.