

Module Specification

Module Summary Information

1	Module Title	Professional Environmental and Materials Science
2	Module Credits	20
3	Module Level	4
4	Module Code	BNV4110

5	Module Overview
<p>Environmental and materials science is an important area of study for all disciplines involved with the design, planning, developing and management of the built environment. This module encourages you to consider how the properties, structures and performance of materials influence why buildings and structures function. You will be encouraged to consider how these properties impact construction from a design and practical use perspective. This module will therefore enable you to develop innovative solutions for more robust, resilient, safe and sustainable buildings and structures. It also gives you the opportunity to produce a professional cv and related documents which you will share with industry on your assessment day.</p> <p>The module focuses on the scientific principles of a low-rise development and the innovations within the built environment. Using directed learning exercises you will produce a professional portfolio throughout the module exploring issues including design technology, building methods, energy use and thermal effect. Many of these issues relate closely to the changing landscape of the sustainability agenda, which affects all built environment disciplines from planning and design to property management. In groups you will produce a final professional portfolio which will be presented to a panel on an assessment day. Representatives from both academia and industry will be viewing the completed work on the assessment day. Therefore, this module is an excellent opportunity to develop your written, verbal, employability, self-awareness and other career-related skills, as well as building knowledge of environmental sustainability and the implications of using building materials.</p>	

6	Indicative Content
<p>Recording accurate and relevant field notes to a professional standard by the production of a portfolio. Effective group working sharing knowledge and practice between disciplines. Topics covered will be sound, lighting, thermal comfort, sustainability, innovation, traditional building materials. These topics will be explored in a variety of ways and will be discussed with the context of each specific discipline (planning, building surveying etc). Placing the Health and Safety at Work Act 1974 within the context of each of the subjects will also be a requirement of the portfolio. Specifically legislation such as CDM 2015, RIDDOR 2013, Control of Asbestos Regulations 2012 and the Control of Noise 2006 will be embedded within the topics and delivery of teaching. Students will be expected to consider these along with other suitable health and safety legislation and relate them directly to their own discipline within their final portfolio submission. Qualitative and quantitative research methods will be used and expected to be utilised within the final portfolio with an emphasis on innovation within these areas.</p>	

7		Module Learning Outcomes
On successful completion of the module, students will be able to:		
	1	Employ the key principles of effective group working skills and communication relating to built environment professions and clients, producing a profession business related document.
	2	Document and communicate progress of portfolio work identifying and explaining common terminology relating to environmental and materials science.
	3	Explain key principles of materials science and their application to building performance within a series of prepared sections of a portfolio.
	4	Describe current agendas in relation to sustainability and renewable energy relative to buildings and building materials and demonstrate these findings within the final portfolio.

8		Module Assessment		
Learning Outcome		Coursework	Exam	In-Person
1, 3, 4		X		
2				X

9		Breakdown Learning and Teaching Activities	
Learning Activities		Hours	
Scheduled Learning (SL) includes lectures, practical classes and workshops, peer group learning, Graduate+, as specified in timetable		48	
Directed Learning (DL) includes placements, work-based learning, external visits, on-line activity, Graduate+, peer learning, as directed on VLE		72	
Private Study (PS) includes preparation for exams		80	
Total Study Hours:		200	