

Module Details	
Module Title:	Materials, Resources, Energy and Competitiveness
Module Code:	OIM7019-A
Academic Year:	2019-20
Credit Rating:	10
School:	School of Management
Subject Area:	Operations and Information Management
FHEQ Level:	FHEQ Level 7 (Masters)
Pre-requisites:	
Co-requisites:	

Contact Hours	
Type	Hours
Tutorials	5
Directed Study	95

Availability	
Occurrence	Location / Period
DLA	University of Bradford / Non-Standard Academic Year (Jan - Sept)

Module Aims
To develop understanding of the role of materials, resource and energy as a source of competitive advantage within the circular economy in relation to a range of settings and where relevant to your own professional roles and forward plans. To provide you with an opportunity to analyse and test resource, material or energy issues in support of business problem appraisal and decision making.

Outline Syllabus
<p>The coupling of Resources, material sand energy in the economy at Global, International, Regional, Local and business specific scale</p> <p>Commodity prices, volatility, hedging and scarcity</p> <p>Resource productivity versus efficiency</p> <p>Biological and technical resources (referenced as nutrients in a circular economy)</p>

Green chemistry, waste as resource and biorefinery concepts
 Developing renewable energy strategies at scale
 Cascading materials and energy
 Resource and material cycling strategies
 Renewable energy, energy systems and scale
 Cradle to cradle design
 Assessment tools and metrics

Learning Outcomes

1	Review and evaluate key concepts, principles and business issues around resources, energy and materials and competitive advantage at different scales
2	Demonstrate the role and importance of concepts such as cascades, green chemistry, commodity prices, metrics on business case outcomes within the design process at different scales
3	Critically appraise a circular economy case study from a resources, energy and materials perspective
4	Clearly communicate the findings from a circular economy a case study focussed on resources, materials and energy

Learning, Teaching and Assessment Strategy

You will engage in learning through a series of directed study activities and online tutorials. Study guide and textbook readings, supported by audio recordings and powerpoint slides will introduce important concepts. Structured tutorial exercises will provide you with the opportunity to develop your understanding of key concepts and ideas. Online tutorial sessions will enable you to engage in debate with your peers and tutor about important ideas and contemporary business problems. LOs 1-4 are assessed by a single written assignment

Mode of Assessment

Type	Method	Description	Length	Weighting
Summative	Coursework	One individual (up to 2000 words) written assignment relevant to your professional setting.	-2000 words	100%

Reading List

To access the reading list for this module, please visit <https://bradford.rl.talis.com/index.html>.

Please note:

This module descriptor has been published in advance of the academic year to which it applies. Every effort has been made to ensure that the information is accurate at the time of publication, but minor changes may occur given the interval between publishing and commencement of teaching. Upon commencement of the module, students will receive a handbook with further detail about the module and any changes will be discussed and/or communicated at this point.