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Refer to guidance notes for completion of each section of the specification.

|                     |        |
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| <b>Module Code:</b> | ENG449 |
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|----------------------|--|
| <b>Module Title:</b> | Project (Environmental Audit Case Study) |
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|               |   |                      |    |
|---------------|---|----------------------|----|
| <b>Level:</b> | 4 | <b>Credit Value:</b> | 40 |
|---------------|---|----------------------|----|

|                        |      |                    |        |
|------------------------|------|--------------------|--------|
| <b>Cost Centre(s):</b> | GAME | <b>HECoS code:</b> | 100549 |
|------------------------|------|--------------------|--------|

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|-----------------|------|-----------------------|-----------|
| <b>Faculty:</b> | FAST | <b>Module Leader:</b> | D. Sprake |
|-----------------|------|-----------------------|-----------|

|  |  |
|--|--|
| Scheduled learning and teaching hours                                | 48 hrs   |
| Placement tutor support  | <a href="#">Click here to enter hours.</a> hrs |
| Supervised learning eg practical classes, workshops                  | <a href="#">Click here to enter hours.</a> hrs |
| Project supervision (level 6 projects and dissertation modules only) | <a href="#">Click here to enter hours.</a> hrs |
| <b>Total contact hours</b>   | <b>48 hrs</b>                                  |
| Placement / work-based learning                                      |  |
| Guided independent study   | 352 hrs  |
| <b>Module duration (total hours)</b>                                 | <b>400 hrs</b>                                 |

| <b>Programme(s) in which to be offered (not including exit awards)</b> | Core                                | Option                   |
|--|-------------------------------------|--------------------------|
| BEng (Hons) Low Carbon Energy, Efficiency and Sustainability           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

|                       |
|-----------------------|
| <b>Pre-requisites</b> |
| None                  |

|                               |              |
|-------------------------------|--------------|
| <b>Office use only</b>        |              |
| Initial approval: 21/09/2020  | Version no:1 |
| With effect from: 28/09/2020  |              |
| Date and details of revision: | Version no:  |

**Module Aims**

*To give the student a thorough understanding of the business activities of their workplace and its comprehensive associated environmental impact through a case study. To report this information in a professional format.*

**Module Learning Outcomes - at the end of this module, students will be able to**

|   |  |
|---|--|
| 1 | Collate and describe specific work-related information and statistics relating to varied sources in different formats.                                       |
| 2 | Compile, collate and analyse information and data in suitable formats.   |
| 3 | Describe how to identify and evaluate the environmental impacts of an organisation or product/service.   |
| 4 | Research and present current UK environmental policy that relates to the business activities of the case study and assess its performance to current policy. |

| <b>Employability Skills<br/>The Wrexham Glyndŵr Graduate</b>   | <b>I = included in module content<br/>A = included in module assessment<br/>N/A = not applicable</b> |
|--|--|
| <b>CORE ATTRIBUTES</b>   |  |
| Engaged  | I  |
| Creative   | I  |
| Enterprising   | I  |
| Ethical  | I  |
| <b>KEY ATTITUDES</b>   |  |
| Commitment   | A  |
| Curiosity  | A  |
| Resilient  | A  |
| Confidence   | A  |
| Adaptability   | I/A  |
| <b>PRACTICAL SKILLSETS</b>   |  |
| Digital fluency  | I/A  |
| Organisation   | A  |
| Leadership and team working  | N/A  |
| Critical thinking  | N/A  |
| Emotional intelligence   | I/A  |
| Communication  | A  |
| <b>Derogations</b>   |  |
| A derogation from regulations has been approved for this module which means that whilst the pass mark is 40% overall, each element of assessment (where there is more than one assessment) requires a minimum mark of 30%. |  |

**Assessment:**

## Indicative Assessment Tasks:

The assessment will be carried out using the student's own workplace as a case study for an environmental audit. The case study will include information gathering, writing and presenting of a report (5000 words) relating to energy usage and environmental impact of the business intended for use a senior management level. Typically, the student will be tasked to provide a range of audits containing the following sections:

1. Comprehensive data on electricity usage of the business and its origins/ impact.
2. Comprehensive data on gas usage of the business and its origins/ impact.
3. Data on any recycling and waste the business produces.
4. A life cycle environmental assessment of all the business activities including social and ecological impact.
5. A study of current installed infrastructure and its data regarding a range of related possible areas for energy saving i.e. compressed air schemes, insulation, lighting old and inefficient equipment.
6. Current government environmental and carbon policy relating to the case study business and how it complies.

| Assessment number | Learning Outcomes to be met | Type of assessment | Weighting (%) |
|-------------------|-----------------------------|--------------------|---------------|
| 1                 | 1,2,3,4                     | Case Study         | 100%          |

**Learning and Teaching Strategies:****Lectures**

Formal lectures of facts and concepts relating to all aspects of environmental issues and its measurement (See syllabus below).

**Tutorials**

Regular 1 to 1 meeting with feedback and suggestions on progress.

Close interaction with students ensuring that the work presented during lectures has been understood with the use of real-world scenarios and problem-solving exercises, with specific help being given in order to overcome any learning problems.

**Syllabus outline:**

The syllabus will cover an up to date overview of the following topics:

- What is an environmental audit?
- Climate change.
- Energy usage.
- Carbon emissions.
- Other pollution forms and consequences.
- Life cycle analysis.
- Environmental audits.
- Ecology impacts.
- Waste and recycling.
- Insulation and heat loss.

**Syllabus outline:**

- Compressed air losses.
- Current UK government carbon and environmental policy.
- What business are expected to do?
- The future.

**Indicative Bibliography:****Essential reading**

*Environmental Audit A Complete Guide - 2020 Edition, Gerardus Blokdyk. ASIN: B084L5XTLJ*

**Other indicative reading**

*Teaching materials  
University resource finder  
<https://www.iema.net/>*