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The context of responsible management education: sustainability skills gap

- 5 core sustainability competencies expected of professional graduates (Wiek et al., 2011):
 - **1. Systems-thinking competence** the ability to analyse complex systems across differing scopes and scales of sustainability
 - **2. Anticipatory competence** the ability to understand future (un)sustainable scenarios
 - **3. Normative competence** the ability to create sustainable vision for future sustainability
 - **4. Strategic competence** the ability to design and implement strategic interventions
 - **5. Interpersonal competence** the ability to work collaboratively to solve problems
- Responsible management education has lagged behind needs of businesses so sustainability, employability and higher order cognitive skills gaps now widely recognised (Benn and Dunphy, 2009; Drayson, 201; Edie, 2015; Laurinkari and Tarvainen, 2017)

"Only 13% of organisations are confident they have the skills they need to compete in a sustainable economy".

Institute of Environmental Management & Assessment (2019)

"85% of employers require graduates to have knowledge of sustainability"

NUS Survey: Employer attitudes towards, and skills for, sustainable development (2018)

What is an audit?

- A methodical examination of procedures and practices
 - ✓ It utilises a framework to structure the examination
 - ✓ Facilitates synthesis of current practice
- Benefits of auditing a business. An audit is a tool to:
 - ✓ Enable the detection of problems before they affect operations (Hillary, 2004)
 - ✓ Provide a benchmark from which to measure subsequent change (Clark and Whitelegg, 1998).
- With the growing focus on sustainable business practices, social and environmental audits have become recognised as a means to collate evidence of sustainability performance and a method of improving it (Gray, 2000, Viegas et al., 2013)
- Within L&T using an audit promotes learning through preparing and undertaking the audit and reflecting on its' outcomes. In this study the audit is of a live case study company, the University of Worcester.



The University of Worcester



The University as a live case study for a real-world sustainability audits

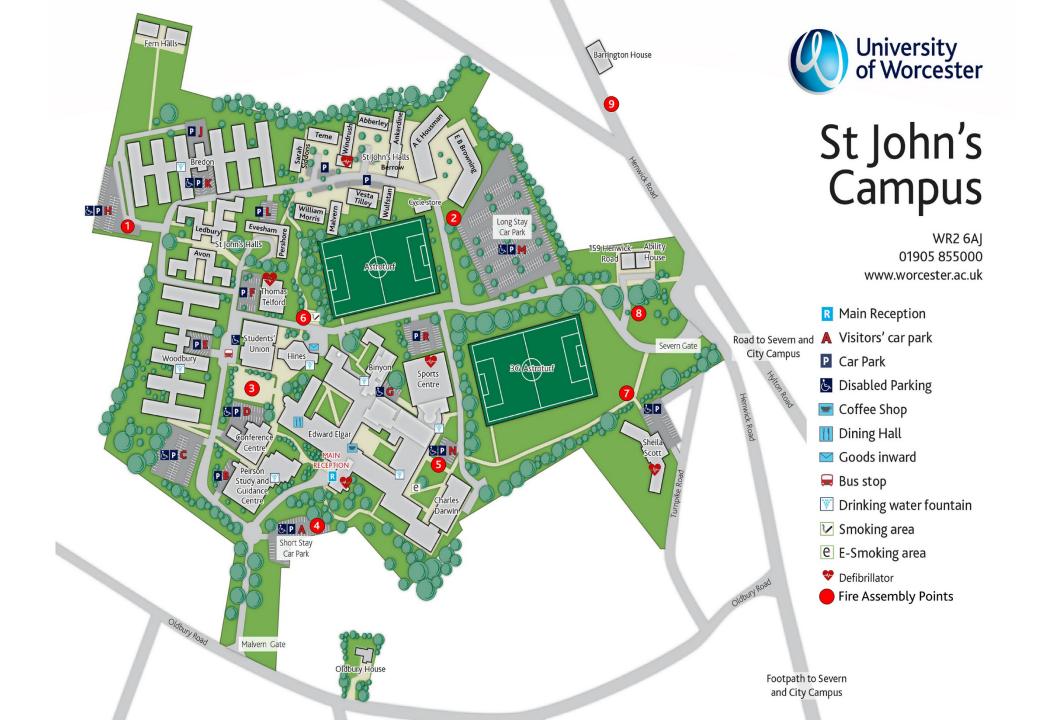
- Case studies are valuable teaching tools that can develop:
 - ✓ Skills for analysis, evaluation and application of information to facilitate cognitive learning (Bonney, 2015)
 - ✓ Thinking capabilities and decision making in disordered contexts (Hardin et al., 2016)
- Some limitations:
 - X Not student specific i.e. does not relate directly to experience of student (Cove et al., 1993)
 - X Does not offer depth of learning that occurs from personal encounter with situation being explored (McCarthy and McCarthy, 2006)
- Live case studies maximise benefits and overcome limitations:
 - ✓ Offers experiential learning by involving students in exploration of real world situations (Burns, 2012)
 - ✓ Promotes long-term learning through engaging practice that is relevant to the learner (Elam & Spotts, 2004)

Your task: Conduct an Environmental Impact Assessment of St John's Campus

Task: Use the campus map to identify potential environmental challenges and opportunities e.g.: use of natural resources and the university's impacts on the environment.

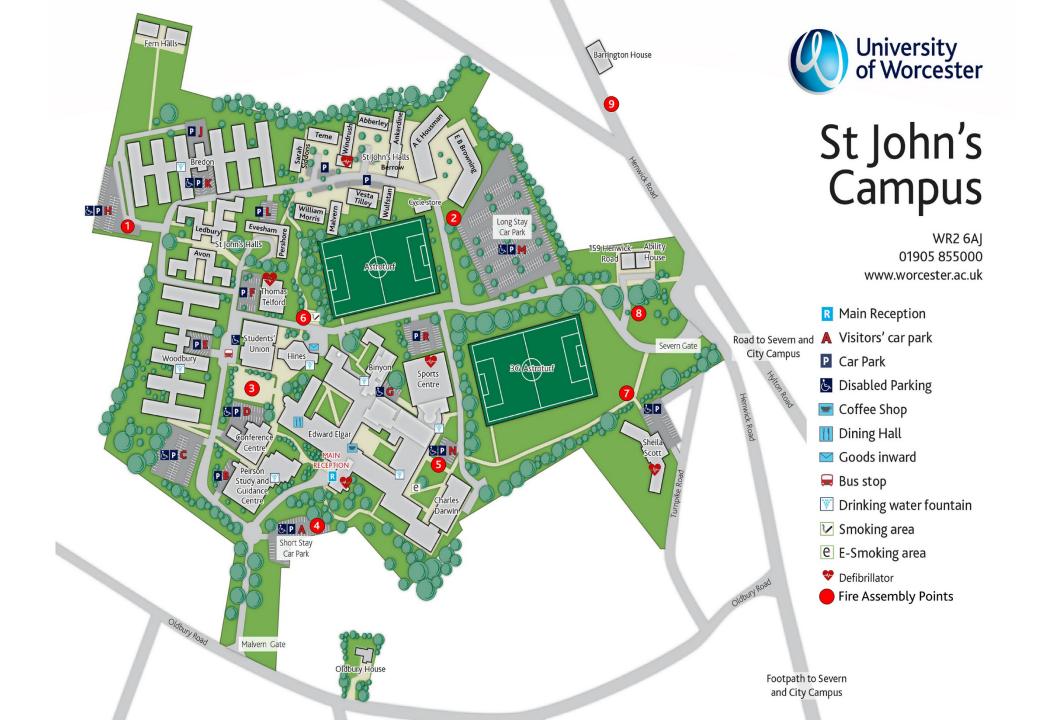
- How to conduct your Environmental Impact Assessment:
 - 1. Spend 5-10 minutes assessing how features on the map impact the environment negative or positive
 - 2. Identify how they effect the environment and what the impact is
 - 3. Choose 1 challenge/opportunity would you prioritise for action and establish why you have prioritised it

Follow up / debrief - share ideas on the online chat / discuss your suggestions



Campus facilities information

Facility	Details
Lighting	Mostly fluorescent tube lighting systems, most rooms have on/off switches to control lights, some presence detector monitors in refurbished rooms.
Heating	Gas boilers provide heat for main teaching block (Edward Elgar, Charles Darwin and Binyon); individual gas boilers provide heat in Halls of Residence (St Johns Halls), Conference Centre and Peirson Study Centre) and buildings for support staff (Woodbury, Bredon, etc.).
Grounds maintenance	Areas of grass kept short (mowing every 2 weeks) and weed free (regular application of pesticide). astroturf sports pitches.
Sports centre	Indoor sports courts, dance studio, showers and changing rooms.



Using the outcomes of the EIA of the University Campus

Challenges and opportunities for change are followed up in class, often with guest speakers (campus operations, university sustainability team and external consultants):

- ✓ Building heating and cooling energy consumption, use of natural resources, fuel poverty, carbon emissions, costs, etc.
- ✓ Lighting and IT equipment as above + renewable energy, consumer demand, etc.
- ✓ Car park as above + water pollution, land contamination, flooding
- ✓ Sports centre as above + well being, energy consumption, building renovation
- ✓ Waste as above + reduce, reuse, recycle, social impacts, etc.
- Biodiversity
- ✓ Local community engagement
- ✓ Communication
- ✓ Employment readiness and higher order cognitive skills development
- ✓ Recognition of own learning

Thank you for participating. Any questions of comments?

