

# Education for Sustainable Development within the core curriculum and beyond: A living lab approach

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Teaching, learning and assessment



## Institutional Context

The University of Warwick is a research-intensive, Russell Group institution, with c. 28,000 students and an international reputation for high quality academic provision. The Division of Global Sustainable Development (DGSD), sits within the School for Cross-Faculty Studies (SCFS). It combines transdisciplinary research with a fundamental focus on education for sustainable development teaching for around 350 undergraduates, through a suite of 12 different joint and single honours BA/BSc degrees. We have recently launched an innovative and highly flexible suite of postgraduate opportunities in Global Sustainable Development, including MPhil and PhD awards.

## The project

The DGSD has a fundamental commitment to developing opportunities focused not just on what education can do for students, but how students can genuinely contribute to sustainable development knowledge and activities. Therefore, we aim to create learning opportunities that offer real-life challenges that develop competencies, skills and prepare students for challenges beyond their studies – while at the same time, making defined contributions to the institution and wider world.

The DGSD has an institution-wide remit to promote Education for Sustainable Development, and part of this is encouraging the application of issue-based and response-focused pedagogies. This supports the university's strategic drive for more interdisciplinary education, by moving away from the teaching of a disciplinary canon of knowledge, to identifying a real-world issue for exploration using a mixture of disciplinary understanding. In some cases, these learning experiences move entirely beyond concerns with disciplinary identity, but always focus on the most appropriate knowledge to interpret the existence of a concern, analyse and diagnose its nature, with the explicit intention of proposing potential responses. These learning experiences combine subject and academic process learning around the environmental, social and economic pillars of sustainable development, with employability/citizenship skill gain via specific workshops run by DGSD staff to enable learners to develop and demonstrate some of the UNESCO key competencies for sustainability. Living laboratory opportunities have included projects generated by the building of Highspeed Rail infrastructure between London and Birmingham, through which we also expressly teach research methods; the creation of Visual Campaigns that respond to issues within the current university food system; connection of the University to City via a Coventry Cycle Superhighway. Further information can be found [here](#).

All our living lab opportunities are sourced via discussion with academics, students and the wider community. In general, academics work alongside other colleagues and students on sustainability focused activities and Sustainability Champions (staff and students) engage in teaching, through the co-design and delivery of facilitated workshops. Therefore, our living lab, learning opportunities arise from these genuine networks and activities.

An exemplar of living-lab learning, is our 15-week optional Certificate of Sustainability Consultancy (Auditing) targeted at undergraduate students. This offers workshops in institutional sustainability policy and the wider governance framework. Students explore practical auditing methodologies, including energy and water use, waste management, biodiversity and campus travel practices. We provide training for students in consultancy engagement, and actively partner them with a volunteer representative from one of the university's operational units including estates, transport planning and academic departments.

Following an initial fact-finding interview, student consultancy teams identify issues, and create a formal response proposal, presented to, and agreed by, the internal client. Learners apply an appropriate audit method to generate data about the issues and analyse the results. A final written report summarizes the project process, methodology and intervention proposals; a presentation of the same is an additional opportunity to communicate back to decision makers.

We provide a similar opportunity for our taught postgraduate students, this time through a Project-Based Capstone module within their mainstream curriculum. Learners are co-creators and define their own three-month projects, working with external organisations or within the university. One specific option is to partner with an internal client, where they research and develop an intervention as part of the university's Climate Emergency response.

## Intended outcomes

### **After engaging with this activity an individual will be able to:**

- + Engage effectively, and according to appropriate professional standards, with client representatives, for the development and delivery of a formally defined project of sustainability improvement, paying specific attention to the nature of the organisation and the wider sector.
- + Undertake appropriate and critical background research to scope and identify an opportunity for sustainability gains.
- + Independently identify and apply an appropriate methodology to generate data for analysis, and propose policy and practice recommendations for sustainability improvements.
- + Synthesise best practices to conclude with evidence-based policy and practice recommendations for sustainability improvements.
- + Use appropriate communication methods to engage client representatives in the written and potentially oral form, as a means to communicate research findings, analysis and recommendations for sustainability improvements.

### **Can you offer some guidance or instruction for those tasked with implementing and leading similar projects or activities?**

- + Genuine and well-maintained relationships between the academic department and members of the professional services teams are essential to repeated, smooth running of these experiences.
- + These projects require significant development time and then sustained investment to run successfully. Therefore, appropriate recognition in the workloads of all staff, and well-planned and transparent communication of notional student learning time have been critical factors in success.
- + Where opportunities are extracurricular, as for example with our certificate, we would advise using an element of positive challenge in the registration process. In our early years, we were always oversubscribed but then saw a high attrition rate as exam stresses emerged (our certificate is offered in the summer examination term). We therefore now require students to apply via a short form based on real world application processes. The application form includes short answer questions around any consultancy experience, what students hope to gain through the experience and how this aligns to future and wider interests.

- + We formalised the relationship between student consultancy teams and the internal client representatives. Once the project is agreed, it is the students' responsibility to manage this relationship, including how to resolve challenges. In this regard, staff provide initial training and then play an ongoing mentoring role. This additional formalisation both enables us to strengthen employability learning and significantly reduce drop out. Overall, such structures promote the recognition of student agency and ownership of the activities, up to and including a celebration of learner agency in their many successful projects. These formalised agreements include: a consultancy name; background decision which should reflect relevant internal policy and external governance; a defined scope for the work, including a precise audit research question; proposed audit method and process, including details of additional access and data needed, and a list of agreed responsibilities for the contact and the consultancy team with accompanying timeline. There is also a list of predefined Terms and Conditions, including expectation of delivery and the process for withdrawal by students.
- + The teaching staff provide a final report template, which students complete to communicate findings and recommendations back to the client contact.

## Useful links

Certificate of Sustainability webpage: [warwick.ac.uk/fac/arts/schoolforcross-facultystudies/certificates/certificateofsust/](https://warwick.ac.uk/fac/arts/schoolforcross-facultystudies/certificates/certificateofsust/)

Capstone PGT module: [courses.warwick.ac.uk/modules/2021/GD903-60](https://courses.warwick.ac.uk/modules/2021/GD903-60)