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| **COURSE TITLE:****CarbonSmart: GHG Accounting for Commercial Projects** |
| *Course Duration:* | *9 weeks (plus closure for academic holidays)* |
| *Delivery mode:* | *in person* |
| *Location:* | *LSBU campus* |
| *Lecture Schedule:* | *Fridays 9 am – 5 pm* |
| *NB* | *This programme is indicative and subject to change* |
| **Session** | **CONTENT** |
| **1** | Welcome, introduction, safeguarding, and an overview of the course and introduction to RICS WLCA. Definition of overall (overarching) assignment leading to session 15 report presentations. The overarching assignment is centred around a chosen work-related group project and will involve a final report (underpinned by RICS WLCA) and a presentation summarising all the intermittent work carried out in class. **Icebreaker**: working in groups, students will set up their report structure and then present an overview of their group's report contribution and their role within the project. The lecture may include a guest speaker -- RICS Specialist. |
| **2** | Introduction to sustainability lecture followed by short in-class group assignment. Topics covered: CSR, underlying sustainability principles; Sustainable Development Goals, Planetary Boundaries and Circular Economy concept. Design and production for sustainability, regulations and industry standards. Practical – sustainability task applied to client (chosen work-related) projects.  |
| **3** | Introduction to Lifecycle Assessment methodology followed by a short in-class group assignment. Practical involves a simple paper-based LCA task. Download SimaPro in class. |
| **4** | Introduction to LCA software – SimaPro followed by an in-class guided LCA exercise.  |
| **5** | Practical - group assignment. Building an LCA model using SimaPro software to assess the environmental impact of a selected product group. Participants will be required to carry out product disassembly and create lifecycle inventories. At the end of the session, groups will share/present their results. Participants will be asked to collect product information related to their chosen work-related projects to assess during the following 2 sessions.  |
| **6** | Practical – group assignment. Building an LCA model for their chosen project-related products, using SimaPro software and previously prepared product information related to their chosen projects. At the end of the session, groups will share/present their results. The lecture will include a guest speaker. |
| **7** | Continued from the previous session. Practical – group assignment. Building an LCA model for their chosen project-related products, using SimaPro software.  |
| **8** | Sustainable supply chain with a focus on sustainable procurement. Practical – analysis of client-chosen project supply chain sustainability. Paper-based group exercise followed by group presentations.  |
| **9** | Introduction to Sustainability-related policy. Emphasis on construction and LCA. In-class group practical applied to client projects: Part 1 developing a summary report understanding the operation and purpose of policy and regulatory instruments to influence construction sector projects, critically appraising the impact of policy on the project. The lecture will include a guest speaker. |
| **10** | Practical group assignment, policy-related tasks: Part 1 continued followed by Part 2 –reporting LCA results in line with BS EN ISO 14044 & BS EN ISO 14040. At the end of the session, groups will present Parts 1 & 2 summary as well as summary comparing the LCA standards with RICS WLCA principles highlighting key similarities and differences and critically appraising the pros and cons of each method. May include a guest speaker. |
| **11** | Introduction to Greenhouse Gas Protocol, related UK legislation, climate science and related risks, opportunities and action. Introduction to basic carbon reporting in line with SECR regulations, basics of scope 1, 2 and 3 methodologies, leading to an overview of GHG accounting (examples of various GHG calculators) – preparing a carbon report: incl. carbon reduction planning. Different GHG calculation tools.  |
| **12** | In-class group task: compare different GHG calculator tools available and calculate GHG emissions of a given example using different calculator tools. Identify the preferred tool for the task, highlight the pros and cons and present a summary.  |
| **13** | In-depth scope 1, 2, 3 emissions – key 5 Scope 3 subcategories.  |
| **14** | Practical - application of GHG calculation tools. Work on the final report (in line with RICS WLCA). Prepare final presentations. Group discussion. |
| **15** | Group presentation of outcomes from practical sessions – presenting overarching assignment report summary. The report structure must reflect RICS WLCA core principles and components. Feedback from participating lecturers. Summary, general feedback, Q&A, conclusions. |