

| Module Details         |                                                |
|------------------------|------------------------------------------------|
| <b>Module Title:</b>   | Feasibility Study                              |
| <b>Module Code:</b>    | CSE6003-B                                      |
| <b>Academic Year:</b>  | 2019-20                                        |
| <b>Credit Rating:</b>  | 20                                             |
| <b>School:</b>         | Department of Civil and Structural Engineering |
| <b>Subject Area:</b>   | Civil and Structural Engineering               |
| <b>FHEQ Level:</b>     | FHEQ Level 6                                   |
| <b>Pre-requisites:</b> |                                                |
| <b>Co-requisites:</b>  |                                                |

| Contact Hours  |       |
|----------------|-------|
| Type           | Hours |
| Lectures       | 12    |
| Fieldwork      | 16    |
| Tutorials      | 36    |
| Directed Study | 136   |

| Availability |                                                 |
|--------------|-------------------------------------------------|
| Occurrence   | Location / Period                               |
| BDA          | University of Bradford / Semester 1 (Sep - Jan) |

| Module Aims                                                                                                                                                                                                                                                                                                                                        |
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| <p>(1) To develop solutions to civil engineering problems by a process of critical appraisal and review using information obtained from a reconnaissance survey and other sources.</p> <p>(2) To provide an opportunity to be creative and innovative.</p> <p>(3) To further develop presentation, team working and personal management skills</p> |

| Outline Syllabus                                                                                                                                                                                                                                                                                         |
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| <p>The feasibility study is set against the backdrop of the social and economic problems facing the town of Whitby in North Yorkshire. The study includes reconnaissance surveys of selected parts of the town; site investigation; development of a detailed brief from the Client's outline brief;</p> |

evaluation and analysis of evidence and data gained in the field and from other sources; development of detailed proposed solutions to the series of civil engineering problems by a process of critical appraisal and review. The nature of the data and evidence collected and the solutions developed will vary depending on the Client's outline brief and the area selected. Factors to be considered by the design teams will vary but are likely to include most of: geology, weathering processes and properties of surface and near-surface deposits; ground conditions; flood and tidal risk; construction methods including temporary works, plant access and materials availability; historical perspective; architectural vernacular; alternative structural forms; aesthetics; noise pollution; health and safety considerations including risk assessment; durability and materials performance; financial risk; project planning; sustainability (economic, ecological, environmental and socio-economic factors); professional conduct and ethics elements, designing for ease of inspection, low maintenance, demolition and re-cycling; buildability and planning constraints. Presentation of results of feasibility study by written report and oral presentation to an audience of students and academic staff.

### Learning Outcomes

|   |                                                                                                                                                                                                                  |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Synthesise the knowledge and understanding to develop solutions to open-ended civil engineering problems.                                                                                                        |
| 2 | Investigate and define a problem and the constraints to the solutions.                                                                                                                                           |
| 3 | Apply the principles of sustainable development (e.g. reducing flooding, usage of renewable energy, etc) to develop solutions to open-ended civil engineering problems.                                          |
| 4 | Consider Health & Safety and Risk Assessment in all design.                                                                                                                                                      |
| 5 | Synthesise, prioritise and critically evaluate information obtained from a range of sources and apply the professional knowledge and ethics elements to establish design objectives.                             |
| 6 | Formulate creative and innovative solutions by a systematic process of critical appraisal and review by judging alternative proposals against the design objectives.                                             |
| 7 | Collect, manage, interpret and use design data obtained from a variety of sources; use IT skills to aid the presentation of technical solutions to a problem; demonstrate written and oral communication skills. |

### Learning, Teaching and Assessment Strategy

Relevant knowledge on various aspects of the module is delivered at lectures and two days field studies. Student teams are encouraged to propose and develop their designs on concerned aspects required in the module coursework briefing. Tutorial sessions with module lecturers are arranged to discuss, consult and improve students groups' work. Directed study will provide students group to undertake and complete their coursework.

Much of the formative feedback for this module will be informal, through class and mostly tutorial sessions and questioning. During tutorials, lecturers will ask questions of the class and the answers to these questions will help to assess students' level of understanding of the subject. We may ask students specific questions to ascertain their understanding of concepts. When asking questions we will either confirm the correct answer or will provide further learning for the group to aid in the understanding of that particular subject. Oral feedback will be given to students team during tutorial session. Written feedback of the group coursework report will be provided in the VLE.

| Mode of Assessment |              |                                                      |             |           |
|--------------------|--------------|------------------------------------------------------|-------------|-----------|
| Type               | Method       | Description                                          | Length      | Weighting |
| Summative          | Presentation | 1 oral presentation per design team                  | 20 minutes  | 20%       |
| Referral           | Coursework   | Supplementary: 1 report (approx 4000 words)          | -4000 words | 100%      |
| Summative          | Coursework   | 1 report per design team (approx 4000 words/student) | -4000 words | 80%       |

| Reading List                                                                                                                                               |
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| To access the reading list for this module, please visit <a href="https://bradford.rl.talis.com/index.html">https://bradford.rl.talis.com/index.html</a> . |

*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.*