

Assignment 1, Unit CSM80011, Term 2 2023

Submissions expected:

- An individual report of minimum 1500-3000 words (excluding tables and list of references) with a good balance of text/photos/diagrams/ illustrations (as relevant).
- An individual presentation of 5 to 8 minutes.

Instructions:

Part A)

→ Find a case study on one of the following topics:

1. Selection/use of equipment for construction of buildings and civil infrastructure (that may include safety consideration, cost, efficiency, environmental impact, etc)
2. Temporary works for building construction and infrastructure works
3. Application of advanced or innovative or alternative materials in construction
4. Application of sustainable materials or processes or systems in construction
5. Decision making framework for the selection and review of materials for construction of buildings and civil infrastructure with sustainability considerations

Note : The case study may be based on existing/published literature or based on an actual project in which you may be involved or have access to.

→ Briefly introduce the case in your own words; and using figures/photos/illustrations (as relevant). Accurate acknowledgment and referencing is required for any data adopted from other studies.

→ Critically review/ evaluate and discuss the case against the circular economy principles or sustainable assessment criteria (Socio-economical, environmental, technical)

→ Submit your report via turnitin in Canvas in **Week 5**.

Part B)

→ Record a presentation of 5 to 8 minutes to be submitted via turnitin, in Canvas

→ And finally be prepared to present your findings in a tutorial/lecture session in **Week 6**, according to a schedule which will be communicated later.

Example structure for your report in Assignment 1, Unit CSM80011

Note: The following is just one example and your report may take a somewhat different structure to best suit the required flow in order to communicate your points and discussions.

→ Provide an introduction to an advanced /alternative material or process or technology, etc. as used in construction industry (illustrate and discuss the main functions or applications of the chosen material/process... in construction)

→ Discuss the main advantage and limitation of the alternative material/process as compared to those of equivalent conventional material/process.

→ Introduce (briefly, in your own words) the Circular Economy (CE) or Sustainable Assessment Criteria (SAC) for sustainable construction.

→ Evaluate the chosen conventional & advanced materials/processes or technologies, etc against the relevant sustainability assessment criteria or circular economy strategies (CES) or circular economy principles (CEP). This could include a tabulated format as given below, followed by your written evaluation/comments/discussions:

	Comments on Material 1 (conventional)	Comments on Material 2 (advanced/alternative)
SAC 1			
SAC 2			
SAC 3			
....			

Or

	Comments on construction process or technology 1 (conventional)	Comments on construction process or technology 2 (advanced/alternative)
CES1 or CEP1			
CES2 or CEP2			
CES3 or CEP3			
....			

Or

→Further support your report with introducing a case study where the alternative material/process/technology is used, and highlight the main benefits gained. If there is no case to report, then discuss the likely reasons why the new material/process, etc has not found its way into practice as yet.

→Then make a short conclusion/recommendation, followed by the list of references.

Marking rubric:

Student Name:	Student No:	Date:
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ELEMENT	MAX SCORE	SCORE
Compliance with assessment requirement	5	
Technical Accuracy of Content	50	
Quality of argument	30	
Spelling & Grammar	8	
References	7	
TOTAL	100	

Comments: