

DCLS assessment details 2024-2025

Unit: CADE20002 Dynamics and Control of Linear Systems
 Year: 2, Credits: 20cp, Teaching block: TB2, Unit director: Dr B. Titurus

Assessment organisation

Assessment description from the unit catalogue: “[100%] – individual coursework report (ILO 1 - 6)”.
 This coursework consists of two equally weighted elements:

- *Vibrations and Aeroelasticity* (V&A) carries 50% of the final unit outcome.
- *Signals, Systems and Control* (SSC) carries 50% of the final unit outcome.

Coursework description

- V&A will be defined in the specification document “*Academic year 2024-2025 coursework specification, Vibrations and aeroelasticity applications in aerospace*”
 - This coursework element consists of 5 tasks which cover Learning Outcomes 4, 5, 6. All tasks have equal relative weighting. Tasks 1 and 2 cover 1 and 2DOF system assessment and design using a provided Matlab simulation tool, Tasks 3 and 4 involve modelling and performance analysis of a 2DOF system, Task 5 involves advanced modelling, stability analysis and numerical simulation. Each task will be summarised on one A4 page of the final submitted document.
 - The tasks will be released gradually (see **Coursework release and submissions**).
 - Responsible academic: Dr Brano Titurus (Brano.Titurus@bristol.ac.uk)
- SSC will be defined in the specification document “*Academic year 2024-2025 coursework specification, Signals, Systems and Control*”. Data files required to complete the first two tasks will be provided alongside the specification document.
 - This coursework component covers Learning outcomes 1, 2, 3. It consists of 4 questions/tasks covering: signals in the time domain; signals in the frequency domain; system modelling in the frequency domain; control in the frequency domain. The tasks require a mix of analytical and numerical modelling (using MATLAB) to complete. These tasks together should not comprise more than 6 A4 pages of the submitted document.
 - The coursework component specification will be released in full as a single activity (see **Coursework release and submissions**).
 - Responsible academic: Prof Steve Burrow (Stephen.Burrow@bristol.ac.uk)

Coursework release and submission

Release dates:

1. V&A Tasks 1 and 3: 11/3/2025 via Blackboard
2. V&A Tasks 2 and 4: 14/3/2025 via Blackboard
3. V&A Task 5: 18/3/2025 via Blackboard
4. SSC complete coursework component: 20/3/2025 via Blackboard

Submission date: 27/3/2025 via Blackboard

Other submission details: Both coursework components are submitted as a single PDF document via Blackboard submission point which will be activated before the deadline¹. Three submission attempts will be permitted. The last document submitted before the deadline will be marked. In case of late submission, the earliest submitted late document is assessed (the standard automatic penalties apply). The coursework is automatically, and later manually, checked for academic misconduct (conventional and AI). This is Category 2 coursework².

Final remarks

This is Level 5 unit. Nominally, minimum 40% *overall* must be achieved to pass the unit.

¹ Our current agreed submission format. Conversation about the best mode of submission ongoing and a further update possible.

² <https://www.bristol.ac.uk/bilt/sharing-practice/guides-on-ai/using-ai-in-assessment/>