



CASMaT International Summer School 2025: Advanced Structural and Material Testing



Course outline

The general outline of the course is as follows: 1 week of preparatory reading (remote), 1 week of lab work and lectures (physical presence required) and 1 week of report writing (remote). The main body of the course consists of 4 modules with a combination of lectures and hands-on experimental work:

1. Data acquisition and instrumentation.
2. The coupon scale: Advanced materials testing.
3. The subcomponent scale: Hybrid testing.
4. Full scale testing: Digital twinning.

On the last day the physical presence on campus is concluded by assignment work and course evaluation (pass/fail). The course is supplemented by guest lectures on selected topics from international experts.

Guest lectures will be provided by:

Janice Barton (University of Bristol, School of Civil, Aerospace and Design Engineering) <https://www.bristol.ac.uk/people/person/Janice-Barton-aaf7d453-58d5-44a6-b378-61839a5ca8bb/>

Ole Thomsen (University of Bristol, School of Civil, Aerospace and Design Engineering) <https://www.bristol.ac.uk/people/person/Ole-Thomsen-077d2715-d460-4d8d-ab92-e24e3716f1b0/>

The workload of the course corresponds to 5 ECTS points. Certificates are issued from DTU.



The course

The summer school takes place at the Technical University of Denmark (DTU) in the structural and material testing laboratories on Risø and Lyngby Campus from August 24 to August 29, 2025.

The summer school is organized in a collaboration between the Department of Wind and Energy Systems (<https://wind.dtu.dk/>) and the Department of Civil and Mechanical Engineering (<https://construct.dtu.dk/>) through their common research facility, the Villum Center for Advanced Structural and Material Testing (CASMaT, <https://casmatt.dtu.dk/>).

The objectives of the summer school are to introduce the theory and concepts behind advanced multiscale testing of structures and materials – with a focus on composites materials and structures – and to allow the students to get hands on experience with the most important, advanced measuring techniques and methodologies.

The course is designed for PhD students and final year graduate students with a basic understanding of material and structural mechanics, however both academic and industrial participation is encouraged.



Practical information

Registration

Registrations are managed by conference manager:

[CASMaT International Summer School 2025 on Advanced Structural and Material Testing | The Event](#)

Registration deadline:

Registration will close June 30th 2025.

NB! There will be a maximum of 30 course participants.

Price

Student fee: EUR 450

Industrial participation: EUR 2000

Venue

There will be course days in both DTU Risø and DTU Lyngby campus. Bus transportation will be arranged to and from DTU Risø campus on relevant course days.

Accommodation

Participants can choose to make their own arrangements or choose to stay in one of the pre-reserved rooms.

NB! There is limited accommodation available.

NB! Accommodation is at the participants' own expense.

Contact

Henrik Stang –

<https://orbit.dtu.dk/en/persons/henrik-stang>

Xiao Chen –

<https://orbit.dtu.dk/en/persons/xiao-chen>

Tristan Hamers –

<https://orbit.dtu.dk/en/persons/tristan-willem-hamers>