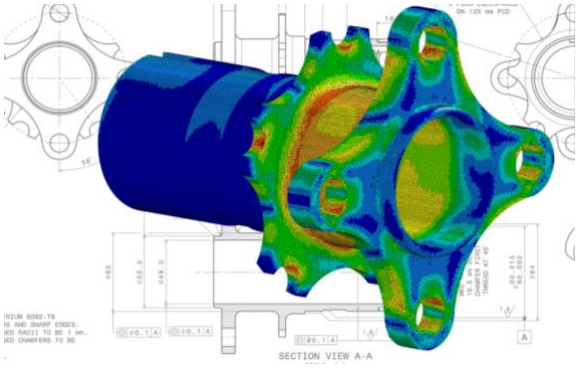
Track “Multiphysics Simulation”

This track is focused on advanced numerical simulation of innovative products in several fields of mechanical engineering, such as geometrical modelling, structural analyses, dynamic behaviour, process simulation, thermofluid dynamics, aerodynamics.



Compulsory Courses (for all Tracks)

Year	Semester	Teaching	ECTS
I	1	Mechanics of Materials and Structures	9
I	1	Advanced Thermodynamics	9
I	1	Metallic alloys for product innovation	9
I	2	Dynamics and Vibrations	9
II	1	Product and manufacturing engineering	9
II	1	Assembly Sistems and Logistics	9
II	1	Product Develoment and innovation	9

Compulsory Courses for the Track

Year	Semester	Teaching	ECTS
I	2	Multibody system dynamics and simulation	6
I	2	Finite Elements for structural design	6
I	2	Simulation of metallurgical processes	6
I	2	Applied Aerodynamics*	6
II	1	Advanced Methods for Geometric Modeling*	6

* One course to be chosen from these two

Elective Courses for the Track

Year	Semester	Teaching	ECTS
II	1	Numerical Thermo-Fluid Dynamics	6
I	2	Maintenance Management	6
I	2	Digital twins for automation	6

Internship: 6 ECTS **Final Project: 15 ECTS**