



ADVANCED COMPOSITE MATERIALS: MANUFACTURING, MECHANICAL PROPERTIES, MODELLING

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COURSE CONTENTS AND SCHEDULE

The course covers manufacturing, mechanical properties, modelling and applications of composite materials. It targets PhD students interested in acquiring understanding on composite materials, how they are made and how their properties can be assessed for design of components and products in different areas (civil engineering, automotive, aerospace, marine, biomaterials...).

March, 2019	Monday 4 th	Tuesday 5 th	Wednesday 6 th	Thursday 7 th	Friday 8 th
9:15 - 10:15					Nano-reinforcements
10:15 - 11:15	Introduction	Micromechanics of long fibre composites	Micromechanics of short fibre composites	Modelling: manufacturing and mechanical properties	Nano-reinforcements
11:15 - 12:15	Fibres and matrices	Micromechanics of long fibre composites	Micromechanics of short fibre composites	Modelling: manufacturing and mechanical properties	Distribution of tasks for exam
12:15 - 14:15					
14:15 - 15:15	Manufacturing	Micromechanics of long fibre composites	Introduction to fatigue of composites	Modelling: manufacturing and mechanical properties	
15:15 - 16:15	Manufacturing	Micromechanics of short fibre composites	Introduction to fatigue of composites	Nano-reinforcements	
16:15 - 17:15	Manufacturing	Self-study (Solving problems)	Self-study (Solving problems)	Self-study (Solving problems)	