

Schedule for **BMEGEPTNX04**  
**Basics of composites technology**  
2023 spring semester

Week	Contact hours			Date	Lecture Thursday 10:15-12:00 (MS Teams)
	Lec.	Sem.	Lab.		
1	2	-	-	27/02	Introduction to thermoset composites.
2	2	-	-	06/03	Typical composite matrix materials: properties and applications.
3	2	-	-	13/03	Typical reinforcing materials of polymer composites. Reinforcing structures, properties and applications.
4	2	-	-	20/03	Basics of composite mechanics 1.: types of material behaviour, rules of mixtures, estimation of composite stiffness, strength, thickness
5	2	-	-	27/03	<b><i>Homework specification, seminar on the design of test plates, Mandatory!</i></b>
6	2	-	-	03/04	Manufacturing technologies of thermoset matrix polymer composites: 1.: overview, wet lay-up, spray-up
7		-	-	10/04 SPRING BREAK!	<i>Wet manufacturing technologies of thermoset matrix polymer composites 2.: RTM, infusion techniques (Video lecture)</i>
8	2	-	-	17/04	Wet manufacturing technologies of thermoset matrix polymer composites 3.: pultrusion, filament winding, centrifugal casting
9	2	-	-	24/04	Dry manufacturing technologies of thermoset matrix polymer composites: BMC, SMC compression moulding, autoclave curing of prepreps
10	2	-	-	05/05 FRIDAY!	Mechanics of composite materials 2.: Laminate code, stiffness matrix of a composite ply
12	2	-	-	08/05	Mechanics of composite materials 3.: Composite plates under tension
11	2	-	-	15/05	Mechanics of composite materials 4.: Composite plates under bending
13	2	-	-	22/05	Homework submission and consultation
14		-	-	29/05 NATIONAL HOLIDAY!	<i>Damage and failure of polymer composites, testing and approving methodologies (Video lecture)</i>