

Óbuda University Bánki Donát Faculty of Mechanical and Safety Engineering			Responsible unit: Institute of Mechanical Engineering and Technol- ogy		
Subject name and ID: Design and manufacturing of plastic injection mould BAGIM1KTNC Credit:3 <i>full time course; semester: 2024/2025. I.</i>					
Course: Mechanical engineering BSc/CAD-CAM III			Date: We 13:30 – 15:10 134.		
Responsible:		Dr.habil Mikó Balázs (as- soc.professor)		Teacher: Dr Mikó Balázs	
Requirement (preliminary study)		-			
Number of les- sons per week		Lecture: -	Seminar: 2	Lab: -	Cons.:-
Rating		Mark for semester work			
Curriculum					
The aim is to present the process of design and manufacturing of plastic injection mould. The parts of moulds are presented, like injection, ejection, cooling systems, the structure of mould bases and app- plied materials; the right design of plastic parts.					
Schedule:					
Week / Date		Topics			
1		Introduction, Injection moulding and machines, Mould design workflow, Home work out			
2		Plastic materials, Design for moulding			
3		Mould bases, guiding systems			
4		Mould materials and heat treatment			
5		Injection system			
6		Ejection system			
7		Cooling system			
8		Undercutted parts			
9		Cost estimation			
10		Examples			
11		Examples			
12		Examples			
13		<i>Home work in, presentation; Test</i>			
14		Retake test			
Requirements: <div><div></div><div>1 Test (15 points)</div><div></div><div>1 Design work + Presentation (25 + 10 points)</div><div></div><div>1 Translation work (5 points) (for Hungarian students)</div></div>					
100-85% excellent (5); 84-70% good (4); 69-55% satisfactory (3); 54-40% pass (2); 39-0% fail (1)					
References: Moodle					

Dr.habil Mikó Balázs