

Courses in English

Course Description

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| Department | 06 Applied Sciences and Mechatronics |
| Course title | Tool Design and Manufacture |
| Hours per week (SWS) | Blockunterricht, 26.-30.04.2021 |
| Number of ECTS credits | 6 |
| Course objective | This module introduced participants to tool design and manufacture. For this purpose, the module essentially covers various design approaches and also part fabrication and finishing techniques. |
| Prerequisites | Bachelors degree |
| Recommended reading | Injection Mould Design by R G W Pye. Longman Scientific & Technical. |
| Teaching methods | Lecture and Project |
| Assessment methods | Exam and projekt |
| Language of instruction | English |
| Name of lecturer | Prof. Dr. Philip Farrugia |
| Email | philip.farrugia@um.edu.mt |
| Link | |
| Course content | Introduction: tool terminology, mould cavities and cores, bolsters, use of inserts, parting line, line of draw, draft angle. Prototype moulds. Tool Design Methods: Rapid Tooling; Design for Injection Moulding'. The Two Plate Mould; Multiplate Moulds; Undercut Moulds Tool Design Methods: Runner and gate design, ejector systems, venting mould shrinkage, methods of location and aligning each half, mould venting; Runnerless Moulds. Internal and external undercuts, splits, side cores/cavities, hydraulics, internal threads, etc. Design of cooling methods for various core/cavity shapes. Tool Part Fabrication techniques: Machine tools, die sinking, spark erosion, hobbing, castings etc. General Mould Construction. Standard Mould Parts |
| Remarks | |