

Classification – General aspects. Ultra-precision machining of metals, polymers and brittle materials. Ultra-precision grinding of glasses and ceramics. Superfinishing processes. Micro-Nanomachining. Energy-beam micromachining. Photo-Lithography, X-ray Lithography. LIGA. Electron-beam machining. Ion-beam machining. Laser-beam micromachining. Micro-EDM. Scanning Tunneling Microscopy. Atomic Force Microscopy. Chemical micromachining. Other micro-nanoprocesses. Micro-punching. Micro-Injection molding. To attend this course, sufficient knowledge of the material of the following courses is strongly recommended: Manufacturing Processes: Material Removal Processes.