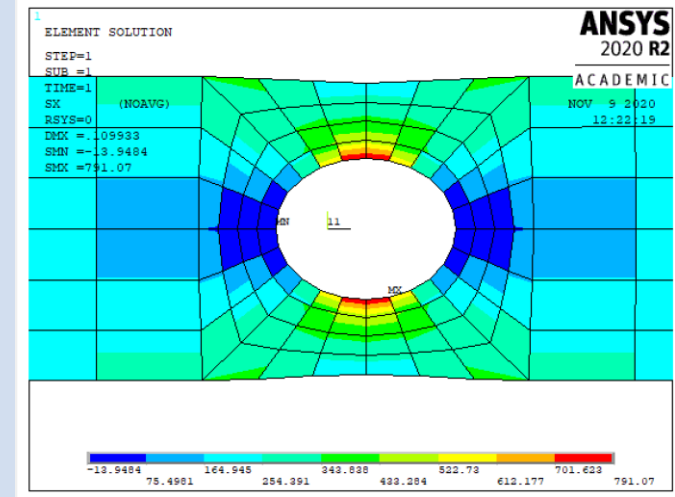
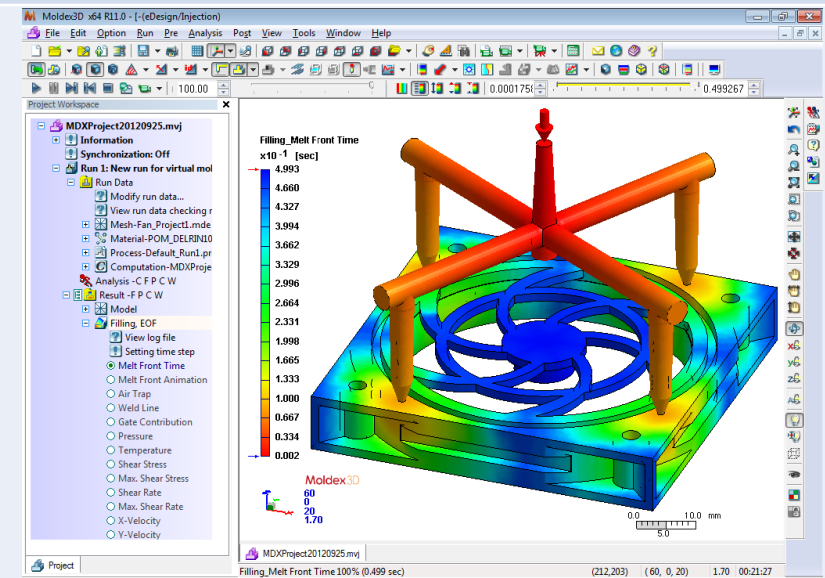
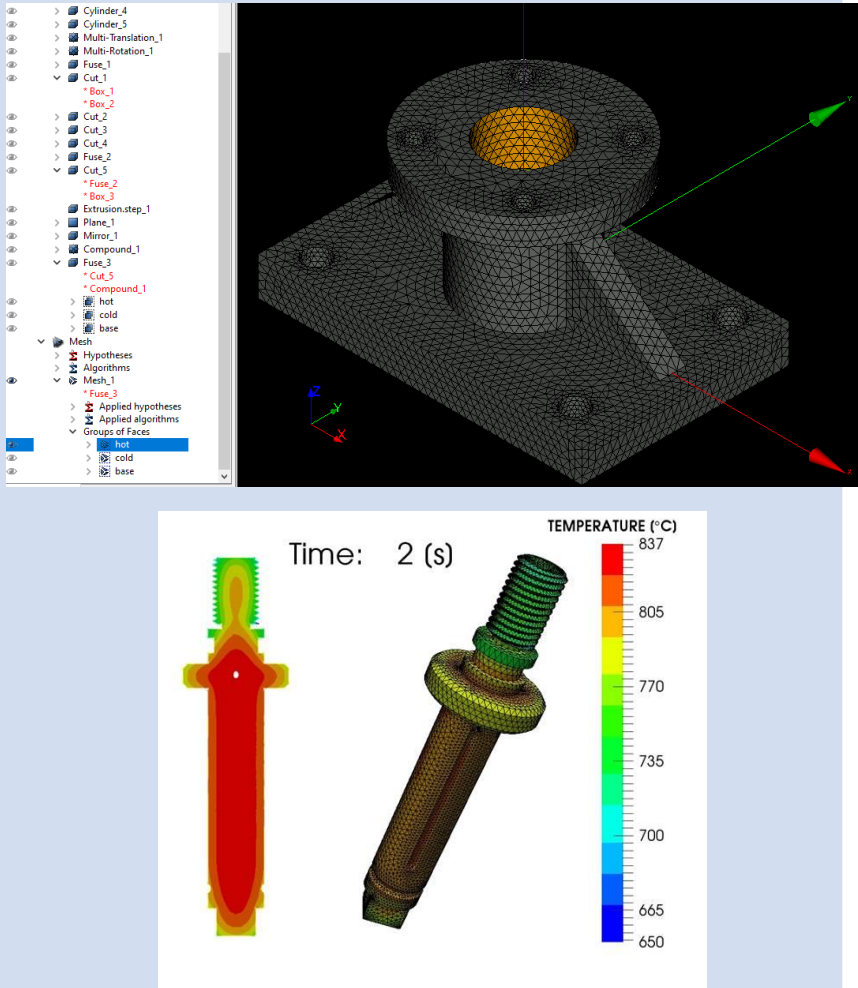


Materials and Production Process Simulation Laboratory (56h)

Activity	Instrument	Student action	
Determination of the tensional state on a perforated plate subjected to tension. (16h)	Ansys Mechanical APDL	Implementation of the numerical model and critical evaluation of the results.	
Injection molding simulation of plastic parts. (20h)	Moldex 3D	Mould design, material selection and evaluation of process parameters	

Activity	Instrument	Student action	
<p>Resolution of stationary and non-linear transient heat exchange problems. (20h)</p>	<p>Salome – Code_Aster</p>	<p>Selection and resolution of two case studies (one steady-state and one non-linear transient), with investigation of the thermal properties of the material and heat transfer coefficients</p>	 <p>The image displays three components of a finite element analysis (FEA) workflow. The top right shows a 3D wireframe mesh of a mechanical part, likely a bolt or nut, with a central hole and a flange. A green arrow points to the mesh, and a red arrow points to a specific feature. The bottom left shows a 2D cross-section of the part, with a color-coded temperature distribution. The temperature scale ranges from 650 to 837 °C, with red indicating the highest temperature and blue indicating the lowest. The text 'Time: 2 (s)' is visible. The bottom right shows a software interface with a feature tree on the left, listing various geometric features like Cylinder, Multi-Translation, Fuse, Cut, Box, Extrusion, Plane, Mirror, Compound, and Mesh. The 'Mesh' feature is highlighted, and a 'hot' condition is selected.</p>