

Branch : Mechanical Production



Code : MODTEC

Option : Modelling technician

Level : Bac Pro

Prerequisites :

Opportunities :

These technicians are most often employed in small, highly specialised companies that work as subcontractors for the automotive and aeronautical industries, but also for the entire capital goods industry.

Description :

The holders of this vocational baccalaureate master all the means necessary for the definition, production, adjustment and control of modelling tools. Their activities include: analysis of technical documents specifying the functional characteristics of the tooling to be made; definition of the elements making up its various parts; development of a manufacturing method including the choice of materials, means of production and manufacturing stages, taking into account the specifications and equipment available in the workshop. The technicians make the components and proceed with their assembly, ensure the finishing, control the tooling and adjust it, fill in the documents relating to quality control and production management.

Quality and competences :

The vocational baccalaureate in pattern making trains students to make tools that will be used to shape materials. These tools are, for example, moulds, models or cutting tools, which must be adapted to all types of materials, hard or soft (plastic, glass, metal, etc.).

During their training, students learn to analyse technical documents describing the characteristics of the tools to be made and the product to be obtained, in order to establish the numerical data necessary for their manufacture. They are introduced to mechanical simulation software in order to draw up the plans for the various parts of the tool.

When the elements making up the tooling are defined functionally, dimensionally and geometrically, each student works on CAM (computer-aided manufacturing) software to establish and validate the manufacturing process (manufacture of the elements and assembly) according to the specifications (delivery times, cost, product quality, etc.). This will involve acquiring a good knowledge of material moulding techniques, specific processes (thermoforming, composite moulding, moulding for resin parts, ceramic shaping), numerically controlled machines, rapid tooling techniques, techniques and procedures