CAD - CAM Training Course

TR1622/102/003

APPLICATION FIELD - TARGET GROUP

Study of technicality for realization of assembly drawings and components of mechanical design by applying the mechanical design methodologies, the technical drawing techniques, utilizing a 3D CAD commercial software package.
Study of the preparation of technical cards of products and working realization (CAM)

This training module is devoted to improve the basic knowledge of field technical persons with refreshing of the know-how and verification of learning results.

TOPICS

CAD 2D.
Introduction to the main characteristics of CAD systems.
Generation and modification of basic geometry elements, sketch of open and closed profiles, management of copies, global and partial moves of shapes in the space. Use of libraries of normalized and parametric elements and not, Setting of CAD instrument, Hatch for materials representation, Dimensioning and dimensioning systems, Definition and principles of emptying, Drawing of views of mechanical details);

CAD 3D
Introduction to 3D, Reference systems (UCS) and three-dimensional coordinates.
Three-dimensional drawing under Wire-Frame mode, Three-dimensional visualization modes, Representation of a three-dimensional object through preset figures assembly, Representation of surfaces and visualization parameters, Three-dimensional drawing under solid mode, Basic principles related to solid modelling, Boolean operations with bodies, Commands for the representation of bodies, Basic principles of rendering, Drawing of views of three-dimensional mechanical details); CAM Systems (Work processes with CAM systems, Production plan of the detail, Respect of construction standards of the product, Documentation supporting the work, Labour conditions, Milling of surfaces, 2 ½ and 3 axis profiling, Different roughing modes, Different finishing modes, Resuming)

SKILLS

Professional knowledge and expertizing in the use of CAD/CAM software packages for design of mechanical devices and systems, preparation and computing of manufacturing processes.

DURATION

173 hours

SESSION OF COURSE

Classroom: 25 session of 5 hours each
Exercising: 12 sessions of 4 hrs each

ENTRY REQUIREMENTS FOR PARTICIPANTS

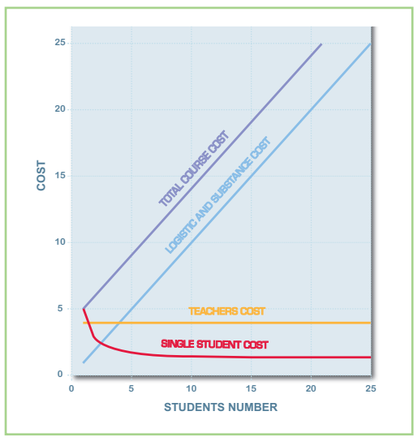
High schools diploma of mechanics science. Short employement experience.

MAXIMUM NUMBER OF STUDENTS PARTICIPATION

As you may see from the diagram, the costs of the course have their best efficiency with a number of participants ranging from 10 up to 25 units.

It is consequently suggestible to perform a teaching course with a minimum of 8 students up to a maximum of 25.

The diagram on the side in only indicative



LABORATORIES / TOOLINGS / INDIVIDUAL EQUIPMENTS

PC workstation with suitable CAM software package 2D and 3D

3D Printer rapid prototyping for CAM experimentation

Plotter and printers

TEACHING & LEARNING MATERIALS / ASSESTMENTS METHODS / CERTIFICATES

- Theory manuals,
- Workbooks,
- Users manuals.
- Schematics presentations and tables.

Evaluation questionnaire at the end of the course

Certificate of attendance at the end of course

RECEPTION PACKAGE

WELCOMING SERVICES FEES:
- Visa issuing, consular expenses for entrance to Italy and residence permit (*issued by Ministry of Interior Affairs*) for study purposes
- Flight ticket to Italy and return

BOARDING AND ACCOMMODATION SERVICES
- Reception at the organized lodging facilities hotel
- Board including: breakfast, lunch and dinner, drinks included

TRAINING COURSE ANCILLARIES SERVICES:
- Laundry service
- Daytime service of fixed telephone through operator at Prodit premises
- Mobile prepaid telephone service - 50 Euro/month for each student
- Shuttle service from hotel to Prodit Engineering training center and return;
- Service of initial care for illness or injuries, available during the course time;
- Individual ordinary life and accident insurance, and national health service

TRAINING COURSE PACKAGE

DIDACTIC ACTIVITIES for 5 (five) days per week, as follows:
- Theoretical activities performed in classroom
- Practical activities performed in workshops and laboratories, equipped with didactic equipment
- Individual endowment for the student made up of text books, stationery and backpack
- Periodical tests for assessing student's learning
- Final examination
- Attendance Certificate (*issued on the basic requirement of a minimum percentage of participation hours, equal to the 95% of the whole duration of the course)*

COURSE LOCATION

These courses will be held at PRODIT ENGINEERING training center in Italy.