





**Diploma in Computer Aided Product Design**

**Curriculum:**

**Module 1 - Engineering & Product Design**

<i>Theory</i>	<i>Practical</i>
<ul style="list-style-type: none"> <li>• Engineering drawing</li> <li>• Engineering design - fundamentals, structural design, material properties for design, machine design, jig-fixture design, tool design, SPM design,</li> <li>• Product design - Elements of design, studies in form, product design, ergonomics, materials &amp; processes, detailing, planning &amp; promotion.</li> <li>• Design for manufacturing</li> <li>• CNC machines introduction</li> </ul>	<ul style="list-style-type: none"> <li>• Drafting &amp; detailing using AutoCAD</li> <li>• Concepts of 3D modeling Solid Edge – Part, Assembly, Sheet metal, drafting.</li> <li>• CATIA – Part, generative shape design, freestyle, assembly, drafting.</li> <li>• Pro/ENGINEER – Part, sheet metal, top down &amp; bottom up assembly, skeleton modeling, drafting.</li> <li>• CATIA - CAM introduction</li> </ul>

**Module 2 - Programming & Analytical skills**

<ul style="list-style-type: none"> <li>• C &amp; C++ programming</li> <li>• Training workshops in soft skills</li> </ul>	<ul style="list-style-type: none"> <li>• Aptitude test series</li> <li>• Career guidance</li> </ul>
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**Module 3 - CAE**

<ul style="list-style-type: none"> <li>• FEA concepts</li> </ul>	<ul style="list-style-type: none"> <li>• ANSYS – Structural, thermal, transient, &amp; modal analysis</li> </ul>
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**Module 4 - Project**

<ul style="list-style-type: none"> <li>• Industry project for 3 months</li> </ul>
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**Certificate Course in 3D CAD, CAM & CAE**

This is a certificate course by University of Pune for Graduates in Mechanical, Production and Automobile Engineering and Industry Professionals. The objective of this course is to develop trained manpower to satisfy the requirements of current technologies in CAD, CAM & CAE. In this course, participants will learn the basic engineering concepts as practiced in the industry by the professionals. There will be extensive practicals using various software tools.

<i>Theory</i>	<i>Practical</i>
<ul style="list-style-type: none"> <li>• Engineering drawing</li> <li>• Material properties for design</li> <li>• Finite Element theory</li> <li>• Manufacturing processes</li> <li>• Design fundamentals</li> <li>• Jig-fixture design • Tool design</li> <li>• Structural design</li> <li>• Personality development,</li> <li>• Career guidance &amp; interview techniques</li> </ul>	<ul style="list-style-type: none"> <li>• Computer aided drafting using AutoCAD</li> <li>• 3D modeling using Solid Edge,</li> <li>• CATIA &amp; Pro/ENGINEER</li> <li>• Computer aided manufacturing</li> <li>• Finite element analysis using ANSYS</li> </ul>



ISO 9001:2008 Learning Environment

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