



BABA FARID COLLEGE OF ENGG. & TECHNOLOGY

AUTO CAD Essentials

Name of the Program	Duration	Documents (Topic Covered in report is Curriculum)	Page No.
AUTO CAD Essentials	32 Hours	List of the students enrolled(with signature of students)	1
		Model certificates	2-4
		Reports showing assessment procedures	5-8

***Topic Covered in report is Curriculum**

Baba Farid College of Engineering & Technology (Attendance Register)
 Program : B.Tech. Mechanical Engineering , Semester 2nd
 Teacher Name: Er. Indraj Kumar
 Course Code: CC_ACE
 Subject : AUTO CAD Essentials(LAB)
 Session : 2023-24 (Even Semester)

S.No	UID	Name	3/4/2022	3/7/2022	3/11/2022	3/15/2022	3/22/2022	3/25/2022	3/29/2022	4/1/2022	4/5/2022	4/8/2022	4/12/2022	4/16/2022	4/20/2022	5/10/2022	5/13/2022	5/17/2022	5/20/2022	5/24/2022	5/27/2022	Total No of Lectures	Lectures Attended	Signature	
1	2175002	Ishant Kumar	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	40	40	Ishant
2	2175007	Karanveer	PRESENT	ABSENT	ABSENT	PRESENT	PRESENT	ABSENT	ABSENT	ABSENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	40	30	Karanveer
3	2175008	Harjit Singh	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	ABSENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	40	38	Harjit Singh
4	2175009	Bhupinder Singh	PRESENT	ABSENT	ABSENT	PRESENT	PRESENT	PRESENT	ABSENT	ABSENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	40	30	Bhupinder Singh
5	2175011	Satveer Kaur	PRESENT	PRESENT	PRESENT	PRESENT	ABSENT	ABSENT	PRESENT	PRESENT	PRESENT	ABSENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	40	34	Satveer
6	2175012	Tejveer Singh	PRESENT	ABSENT	PRESENT	PRESENT	PRESENT	ABSENT	ABSENT	PRESENT	PRESENT	PRESENT	ABSENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	40	32	Tejveer Singh
7	2175013	Pawan Kumar	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	40	40	Pawan Kumar
8	2175014	Armaandeep Singh	PRESENT	PRESENT	PRESENT	PRESENT	ABSENT	PRESENT	PRESENT	PRESENT	PRESENT	ABSENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	40	36	Armaandeep Singh
9	2175015	Chamkaur Singh	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	ABSENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	40	38	Chamkaur Singh
10	2175016	Hitesh Kumar	PRESENT	ABSENT	ABSENT	PRESENT	PRESENT	ABSENT	ABSENT	ABSENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	40	30	Hitesh Kumar
11	2175017	Pardeep Kumar	ABSENT	ABSENT	PRESENT	ABSENT	ABSENT	PRESENT	ABSENT	PRESENT	ABSENT	ABSENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	40	26	Pardeep Kumar
12	2175019	Abhishek Singh	PRESENT	PRESENT	ABSENT	PRESENT	PRESENT	PRESENT	PRESENT	ABSENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	40	36	Abhishek Singh
13	2175021	Irfan Ali	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	40	38	Irfan Ali
14	2175022	Husanpreet Singh	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	40	0	Husanpreet Singh
15	2175023	Jaspreet Kaur	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	ABSENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	40	38	Jaspreet Kaur
16	2175025	Harsimranpreet Singh	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	ABSENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	40	38	Harsimranpreet Singh
17	2175026	Kulwinder Singh	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	40	0	Kulwinder Singh
18	2175027	Bhupinder Kumar	PRESENT	PRESENT	ABSENT	PRESENT	PRESENT	ABSENT	PRESENT	ABSENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	40	34	Bhupinder Kumar
19	2175028	Divyansh Verma	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	ABSENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	40	34	Divyansh Verma
20	2175029	Ashish Kumar	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	ABSENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	40	38	Ashish Kumar
21	2175030	Arshdeep Singh	PRESENT	PRESENT	ABSENT	PRESENT	PRESENT	ABSENT	PRESENT	ABSENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	40	34	Arshdeep Singh
22	2175031	Arvinder Kaur	PRESENT	PRESENT	ABSENT	PRESENT	PRESENT	PRESENT	PRESENT	ABSENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	40	36	Arvinder Kaur
23	2175033	Pawan Kumar	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	40	0	Pawan Kumar
24	2175034	Ranveer Kumar	PRESENT	ABSENT	PRESENT	PRESENT	PRESENT	ABSENT	ABSENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	40	34	Ranveer Kumar
25	2175035	Monu Kumar	PRESENT	ABSENT	PRESENT	PRESENT	PRESENT	PRESENT	ABSENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	40	32	Monu Kumar
26	2175036	Raj Singh	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	40	0	Raj Singh
27	2175037	Manpreet Singh	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	40	40	Manpreet Singh
28	2175040	Harmandeep Singh	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	ABSENT	40	0	Harmandeep Singh

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Muktsar Road, Bathinda, Punjab (India)

(Approved by AICTE & Affiliated to Maharaja Ranjit Singh Punjab Technical University, Bathinda)

CERTIFICATE OF COMPLETION

This is to certify that Ms./Mr. **Ishant Kumar**, UID **2175002**, Program **B. Tech Mechanical Engineering, Semester 2nd** has successfully completed certificate course on “**AUTO CAD Essentials**” which was organized by Department of Mechanical Engineering, Baba Farid College of Engineering and Technology, Bathinda during Session 2021-22 (Even Semester).

Bathinda, Punjab(India)



Er. Indraaj Kumar
Course Coordinator
Department of ME

**BABA FARID
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Bathinda, Punjab(India)



Dr. Tejinderpal Singh Sarao
Head
Department of ME

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CERTIFICATE OF COMPLETION

This is to certify that Ms./Mr. **Karanveer**, UID **2175007**, Program **B. Tech Mechanical Engineering, Semester 2nd** has successfully completed certificate course on “**AUTO CAD Essentials**” which was organized by Department of Mechanical Engineering, Baba Farid College of Engineering and Technology, Bathinda during Session 2021-22 (Even Semester).

Bathinda, Punjab(India)



Er. Indraj Kumar
Course Coordinator
Department of ME

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CERTIFICATE OF COMPLETION

This is to certify that Ms./Mr. **Harjit Singh**, UID **2175008**, Program **B. Tech Mechanical Engineering, Semester 2nd** has successfully completed certificate course on “**AUTO CAD Essentials**” which was organized by Department of Mechanical Engineering, Baba Farid College of Engineering and Technology, Bathinda during Session 2021-22 (Even Semester).

Bathinda, Punjab(India)



Er. Indraaj Kumar
Course Coordinator
Department of ME

**BABA FARID
GROUP OF INSTITUTIONS**

Bathinda, Punjab(India)



Dr. Tejinderpal Singh Sarao
Head
Department of ME



Report on AUTO CAD Essentials

Eligible Students: B.Tech. 2nd Semester

Duration of Course: 32 Hours

Date: 04-03-2022 to 27-05-2022

Course Code: CC_ACE

No. of Students Enrolled in the course: 28

Timing: 01:50 pm to 03:20 pm

Days: Tuesday and Friday

Course Coordinator: Er. Indraj Kumar

The AutoCAD Essentials course conducted during the session 2021-22 for B.Tech. students. This certificate course offers a comprehensive learning experience for individuals seeking to develop proficiency in computer-aided design (CAD). AutoCAD is a powerful software widely used in various industries, including architecture, engineering, and construction. The course duration was 32 hours, where 25 students successfully completed the course.

The faculty expert ensured to equip students with the necessary knowledge and skills to effectively utilize AutoCAD for creating precise 2D and 3D digital designs. Through hands-on practice and interactive sessions, students will learn the fundamental tools and techniques of AutoCAD, enabling them to produce professional drawings, models, and layouts.

Teaching Pedagogy:

The teaching pedagogy for the AutoCAD Essentials course focuses on hands-on learning and interactive methods. Students will receive live demonstrations to understand AutoCAD functionalities, followed by ample opportunities for hands-on practice. Individual guidance and collaborative learning activities will enhance the learning experience. Regular assessments will provide feedback, and real-world applications will highlight the practical relevance of AutoCAD. A project-based approach will allow students to apply their skills, and additional resources will encourage continuous learning beyond the classroom. Through these methods, the course aims to provide a comprehensive and practical understanding of AutoCAD for 2D and 3D design purposes.



Topics Covered:

Module 1: Introduction to Auto CAD

Introduction of AutoCAD, AutoCAD versions, Interface, Control the Drawing, Function keys, AutoCAD basics, Coordinate system, Cartesian, coordinate system,

Module 2: Draw and Modify commands

Draw Commands-Line, Poly line command, Rectangle command, Modify commands-Move, Rotate, Scale, copy, Mirror, erase, trim, extend, Annotate-Dimension Style, Manager Linear, Aligned, Radius, Angular, Arc length

Module 3: Text command, Layers, blocks

Text command-Single line text, Multiline text Layers, Layer properties, Blocks, Insert blocks, Parametric Geometric, Dimensional Manage

Module 4: Isometric views

Isometric views-Isometric top, left, right Isometric diagrams, Isometric drawings, Isometric diagrams, exercise, 2D Fundamentals, Drawing units, Sheet settings, Mechanical diagrams

Module 5: Project

Mechanical Projects

Assessment Procedure:

The students were evaluated throughout the course based on four parameters: Technical Knowledge, Hands-on Practice, Skill Test, and Attendance. Each parameter carried a certain weightage in the overall evaluation.

1. Technical Knowledge in Concerned Field (20 marks):

This parameter measured their theoretical knowledge, conceptual understanding, and ability to apply that knowledge to practical scenarios.

2. Hands-on Practice (10 marks):

Hands-on practice evaluated the student's ability to apply their knowledge in practical situations. It measured their proficiency in utilizing tools, techniques, or software relevant to the course.

3. Skill Test (10 marks):

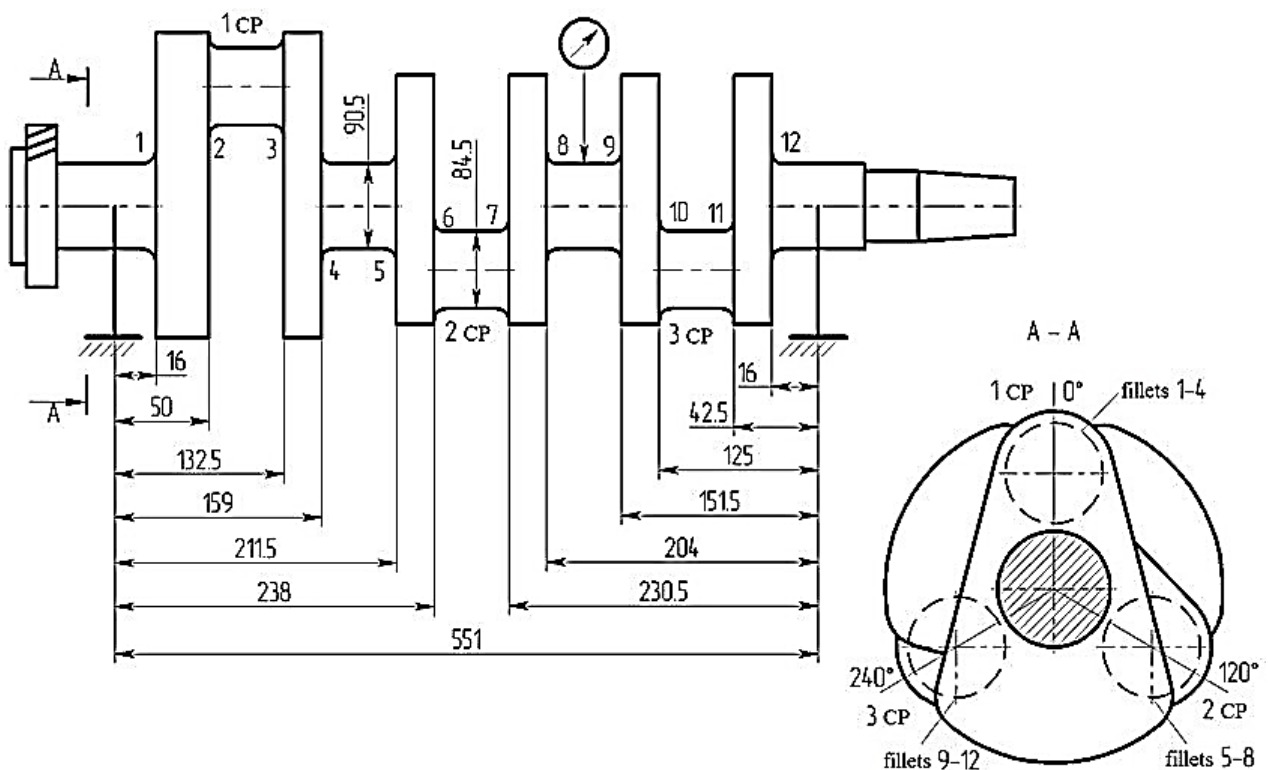
The skill test assessed the student's competency and proficiency in specific skills related to the course. It focused on practical skills that were essential for the field of study.

4. Attendance (10 marks):

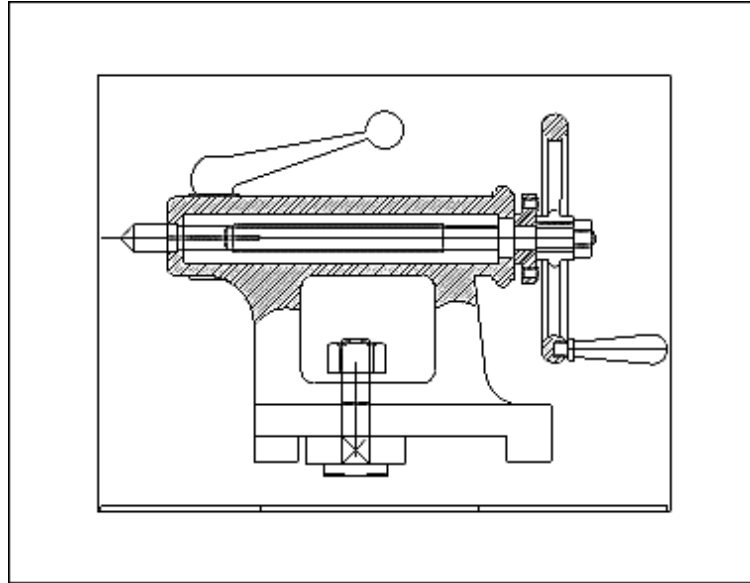
Attendance refers to the student's regular presence in the course. It emphasizes the importance of active participation and consistent engagement throughout the duration of the program.

Outcome:

1. They have gained a comprehensive understanding of CAD concepts and CAD tools, allowing them to navigate and utilize CAD software effectively.
2. The students now possess a solid understanding of Concepts, Wireframe, and Surface modeling techniques, enabling them to create complex and detailed 3D models.
3. They have acquired the ability to create precise engineering drawings using CAD software, utilizing the Part modeling feature to develop accurate representations of engineering components.
4. Students made a design of crankshaft, design of tailstock and many more. It was the major achievement of the certificate course.



Design of Crankshaft using AUTOCAD software



Design of Tailstock using CAD software