

GOVT. POLYTECHNIC, NAYAGARH
4TH SEMESTER MECHANICAL ENGINEERING 2025-26(SUMMER)
LESSON PLAN

Subject- TH:3- COMPUTER-INTEGRATED MANUFACTURING (CIM)

Name of Faculty: Mrs.Monalisa Sahoo, Sr.Lect Mech.

Session: - 22/12/2025 to 18/04/2026

Total Periods: - 45

Theory: - 3p/Week

Sl. No.	Week	Period	Topics To Be Covered
1	1st	1 st	Unit-I: Concept of Computer Integrated Manufacturing (CIM);
		2 nd	Basic components of CIM;.
		3 rd	Distributed database system.
Sl. No.	Week	Period	Topics To Be Covered
2	2nd	1 st	Distributed communication system.
		2 nd	Computer networks for manufacturing
		3 rd	Future automated factory;
Sl. No.	Week	Period	Topics To Be Covered
3	3rd	1 st	Social and economic factors...
		2 nd	Revision & Catch-up (Course Content Review)..
		3 rd	Unit-II: Computer Aided Design (CAD): CAD hardware and software;
Sl. No.	Week	Period	Topics To Be Covered
4	4th	1 st	CAD hardware and software;
		2 nd	Product modeling,
		3 rd	Product modeling,.
Sl. No.	Week	Period	Topics To Be Covered
5	5th	1 st	Automatic drafting;
		2 nd	Automatic drafting;
		3 rd	Engineering analysis;.
Sl. No.	Week	Period	Topics To Be Covered
6	6th	1 st	FEM design review and evaluation;
		2 nd	Group Technology Centre
		3 rd	Revision & Catch-up (Course Content Review).
Sl. No.	Week	Period	Topics To Be Covered
7	7th	1 st	Unit-III: Computer Aided Manufacturing (CAM),.
		2 nd	Computer assisted NC part programming for plain turning and step turning;.
		3 rd	Computer assisted NC part programming for plain turning and step turning;.
Sl. No.	Week	Period	Topics To Be Covered
8	8th	1 st	Computer assisted NC part programming for plain turning and step turning;.
		2 nd	Computer assisted robot programming;
		3 rd	Computer assisted robot programming;

Sl. No.	Week	Period	Topics To Be Covered
9	9th	1 st	Computer assisted robot programming
		2 nd	Computer aided process planning (CAPP);
		3 rd	Computer aided process planning (CAPP);
Sl. No.	Week	Period	Topics To Be Covered
10	10th	1 st	Computer aided material requirements planning (MRP)
		2 nd	Computer aided material requirements planning (MRP)
		3 rd	Revision & Catch-up (Course Content Review).
Sl. No.	Week	Period	Topics To Be Covered
11	11th	1 st	Unit-IV: Computer aided production scheduling
		2 nd	Computer aided inspection planning;
		3 rd	Computer aided inventory planning
Sl. No.	Week	Period	Topics To Be Covered
12	12th	1 st	Flexible manufacturing system (FMS);.
		2 nd	Concept of flexible manufacturing
		3 rd	Revision & Catch-up (Course Content Review).
Sl. No.	Week	Period	Topics to be covered
13	13th	1 st	Unit-V: Integrating NC machines
		2 nd	Robots
		3 rd	Agvs, and other NC equipment.
Sl. No.	Week	Period	Topics to be covered
14	14th	1 st	Computer aided quality control;
		2 nd	Business functions
		3 rd	Computer aided forecasting
Sl. No.	Week	Period	Topics to be covered
15	15th	1 st	Office automation .
		2 nd	Revision & Catch-up (Course Content Review).
		3 rd	Final assessment / doubt clearing session.

REFERENCES:

1. CAD, CAM, CIM by P. Radhakrishnan and S. Subramanyan, New Age International Publishers
2. Computer Integrated Manufacturing by Paul G. Ranney, Prentice Hall.
3. Robotics Technology and Flexible Automation – S.R. Deb, TMH

Ms. Monalisa Sahoo
22/12/25

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