

(018)

**Teaching plan**  
**Subject-CIM**

**UNIT - I**

**101** Evolution of CIM, **102** Concept and scope of CIM, Definition of CIM, **103** Components of CIM, **104** benefits, limitations, **105** Difference between Automation and CIMS, **106** Basic Concept of Concurrent Engineering. -----(17/12/2018 to 25/12/2018)

**UNIT - II**

**201** Introduction to NC, CNC & DNC, **202** Basic Components of an NC System, **203** classification of CNC machine tools: Based on the motion type, control loops, number of axes & power supply. **204** Major Components of CNC system, **205** CNC Tooling, constructional and operational features, **206** CNC manual part programming, **207** application, advantages & limitation of CNC. -----(26/12/2018 to 03/01/2019)

**UNIT - III**

**301** Introduction to Group Technology, **302** Limitations of traditional manufacturing systems, **303** characteristics and design of groups, **304** benefits of GT and issues in GT. **305** Part families, **306** classification and coding, **307** Production flow analysis, **308** Machine cell design, Benefits. -----(04/01/2019 to 13/01/2019)

**UNIT - IV**

**401** Introduction to flexible manufacturing systems: **402** Definition of FMS, **403** Types of FMS: by number of machines, Level of Flexibility. **404** FMS components: Workstations, Material handling & storage system, and computer control systems. **405** FMS Layout Configurations. **406** Application, advantages & disadvantage of FMS. -----(14/01/2019 to 26/01/2019)

**UNIT - V**

**501** Manufacturing Planning:  
**502** Computer aided process planning (CAPP), **503** Retrieval & Generative CAPP systems.  
**504** Production Planning: Aggregate Production Planning, **505** Master production schedule,  
**506** Materials requirement planning (MRP), **507** Capacity planning, **508** Manufacturing Resources planning (MRP II), **509** ERP. -----(27/01/2019 to 12/02/2019)

**UNIT - VI | 8 Hrs.]**

**601** Manufacturing system control: **602** Computerized statistical process control, **603** Shop floor control, **604** Shop floor data collection techniques, **605** Inventory control, **606** Pull system of