



Gyanmanjari Institute of Technology (GMIT)

Mechanical Engineering Department

SDP Course Content

Name of Course : CNC Programming



Course Objective:

- The objective of this short term course is to understand the functionality of the CNC, its usefulness in Manufacturing and real part producing whereby students will get a direction to make any product using CNC by programming.
- Student can able to know the function of CNC and can be aware about various types of tool and work holding devices like jig and fixtures.
- Students can be aware about various kinds of CNC cutters.

Syllabus

| Sr.No. | Contents | Hrs. |
|-------------------|--|-----------|
| 1. | Introduction and classification of CNC and features of CNC machining | 2 |
| 2. | Introduction about various types of tool and work holding devices. | 2 |
| 3. | Job preparation using part programming | 2 |
| 4. | Job preparation using part programming | 2 |
| 5. | Job preparation using part programming | 2 |
| 6. | Job preparation using part programming | 2 |
| 7. | Job preparation using part programming | 2 |
| 8. | Job preparation using part programming | 2 |
| 9. | Job preparation using part programming | 2 |
| 10. | Job preparation using part programming | 2 |
| Total Hrs. | | 20 |

Coordinator details and timing:

| | |
|--------------------|---|
| Course Duration | 20 Hrs. |
| Course Coordinator | |
| Batch Size | 20 |
| Course Fee | NIL |
| Targeted Audience | 6th semester students of manufacturing domain |

Resource requirement:

| | |
|-----------------------------------|--|
| Infrastructure requirement | Class room with projector, workshop |
| Hardware / Software | Master CAM |
| Consumable | Various size of M.S. round bar, square bar |
| Special Equipment | CNC & VMC machines |

Lesson Plan**Assessment criteria**

| Sr. No. | Criteria | Marks |
|---|------------------------|--------------|
| 1 | Test (MCQ + Numerical) | 50 |
| 2 | Practical Exam | 50 |
| Passing criteria: More than 50% marks in all component | | |

Course Outcome:

- Student can able to be CNC programmer.
- Student can get opportunity to increase their skill by creating realistic parts.
- Modern CAM skills will make students to stand in competition in this fast-growing industry.
- Certificate at the successful completion of the course.