GUJARAT TECHNOLOGICAL UNIVERSITY

Syllabus for Bachelor of Vocation (B.Voc), 5th Semester
Branch: Production Technology
Subject Name: CAD & CAM Laboratory
Subject Code: 1150305

With effective from academic year 2018-19

Type of course: Under Graduate

Prerequisite: Zeal to learn the subject

Rationale: The course is intended to provide exposure of modelling techniques for curves, surfaces and solids. It also includes topics on feature based modelling and assembly modelling. The manufacturing field has witnessed the development of major automation alternatives recently. CNC machines play a big role in manufacturing field. An attempt has been made to focus on CNC machine tools, related programming and their advanced features.

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks				Total Marks
				Theory Marks		Practical Marks		
L	T	P	C	ESE (E)	PA (M)	ESE (V)	PA (I)	
0	0	2	2	0	0	30	20	50

Sr. No	Topic	No. of Hours
01	Introduction and different features of the CAD Software.	2
02	3-D Modeling, 3-D Advanced Modeling	2
03	Assembly Modeling.	2
04	2-D Drafting, Detailing.	2
05	Feature Modification and Manipulation, Sheet Metal Operations, Surface Modeling.	2
06	To prepare part programming for plain turning, taper turning, step turning in metric and inch mode.	2
07	To prepare part program for threading operation.	2
08	To prepare part program for slot milling operation.	2
09	To prepare part program for gear cutting operation and for gear cutting using mill cycle	2
10	To prepare part program for drilling operation.	2

Reference Books:

1. Engineering AutoCAD, Pradeep Jain & A.P. Gautam, Khanna Publishing House
2. Engineering Graphics and Design, Pradeep Jain & A.P. Gautam, Khanna Publishing House

List of Open Source Software/learning website:
https://nptel.ac.in,