



STARK STATE COLLEGE

GENERAL SYLLABUS

Course Information

Course Name: Advanced CNC Programming
Course Number: AIT221

Required Materials

Textbook(s): CNC Programming Handbook Third Edition ISBN: 978-0-8311-3347-4 Author: Peter Smid
Required Readings: None
Additional Materials: Safety glasses for lab, USB storage device, and calculator with trigonometry functions

Course Outline/Calendar

The date of coverage and order of coverage may be modified based on the faculty member and events beyond the control of faculty members that interfere with class times and teaching.

Week	Chapter/Topic/Lab
1	Review Syllabus, Review Mill Programing Codes groups 1, Tour lab, Section 2-1 Intro to Safety and related questions, Review programming codes
2	Review chapters 12, 13, and related questions, spot drill depth formula Review Mill Programing Codes groups 2 and 3, complete tool library and Mill Part 2 program
3	Review chapters 18, 19, 39, and related questions, Review Mill Prog Codes groups 4 and 5 Mill work offset lab, Mill tool length offset lab with worksheet
4	Review Mill Programing Codes groups 6 and Lathe groups 1 and 2, Lathe tool offsets lab Test 1, Complete Mill Part 2 program
5	Review chapters 21, 23, 25, and related questions Complete Mill Part 3 program
6	Review chapter 29 Circular Interpolation and related questions Chapter 45 Thread Milling and related questions, complete Mill Part 5 program
7	Chapter 49 Program Documents and related questions, Test 2 review TEST 2, Complete Mill Part 6 program
8	Review lathe programing Codes groups 1 and 2 Chapter 35 Lathe cycles and related questions, review air cylinder class project
9	Develop class project programs Produce class project parts in Lab
10	Develop class project programs Produce class project parts in Lab
11	Produce class project parts in Lab

Week	Chapter/Topic/Lab
	TEST 3 – (Problem Solving and Decision Making - Take home)
12	Produce class project parts in Lab
13	Produce class project parts in Lab
14	Chapter 38 Single Point Threading and related questions Develop thread program
15	Complete Lab Projects Review for Final Exam
16	Test 4 - Final Exam Week