

Master Course Syllabus

Department: Engineering Technology **Course Prefix/Number:** IT 450

Official Course Title: Numerical Control Programming

Master Syllabus Approved by Department on: 05 / 11 / 05
month date year

I. Catalog Description:

A continuation of IT 3503 in which more advanced programming techniques are studied. Included is a study of the various N/C part programming languages and evaluation of N/C equipment and the further refinement of the APT/NC language. Lab fee \$10.

II. Prerequisites: IT 350

III. Expanded Course Description:

This course focuses on machining complex surfaces as well as creating and editing postprocessor output. The course will focus on tool path creation as well as setup and machine documentation. Emphasis will be placed on students designing, testing, setting up and machining parts.

IV. Intended Student Learning Outcomes: Upon completion of the course, students will be able to:

1. Create basic parametric parts and assemblies.
2. Explain features and requirements of a postprocessor.
3. Modify a postprocessor to change, format or suppress the output.
4. Create setup documentation for milling.
5. Troubleshoot postprocessor based problems on lathe or mill applications.
6. Set up and configure an NC mill or lathe.
7. Create necessary cutter movement to machine basic parts.
8. Run NC Programs on an NC Mill.
9. Assemble fixtures and check for interference using CAM software.
10. Apply proper speeds and feeds in programming.

V. Unless otherwise stipulated in this master syllabus by the department, the following items are subject to faculty discretion as described in each faculty member's individual course outline/syllabus:

- a) Course Requirements? (grading/evaluation procedures; class attendance policy; term papers, projects, field assignments; examinations; class participation, etc.)
- b) Required Text(s)?
- b) Bibliography?

- VI. Academic Honesty: Cheating, plagiarism (submitting another person's materials or ideas as one's own), or doing work for another person who will receive academic credit are all-impermissible. This includes the use of unauthorized books, notebooks, or other sources in order to secure or give help during an examination, the unauthorized copying of examinations, assignments, reports, or term papers, or the presentation of unacknowledged material as if it were the student's own work. Disciplinary action may be taken beyond the academic discipline administered by the faculty member who teaches the course in which the cheating took place.
- VII. Students With Disabilities Policy: It is the policy of Tarleton State University to comply with the Americans with Disabilities Act (ADA) and other federal, state, and local laws relative to the provision of disability services. Students with disabilities attending Tarleton State University may contact the Office of Disability Services at (254) 968-9478 to request appropriate accommodation. Furthermore, formal accommodation requests cannot be made until the student has been officially admitted to Tarleton State University.

Department Head Signature/Date:

Signature

_____/_____/_____
Date