

Master Course Syllabus

Department: Engineering Technology

Course Prefix/Number: IT 317

Official Course Title: Machine Tool Technology

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

I. Catalog Description: Fundamentals and principles of metal removal processes. Emphasis is placed on metal lathes, milling machines, grinding machines, and electric discharge machines.

II. Prerequisites: IT 117

III. Expanded Course Description: This is a course designed for junior level students and will provide a foundation in machine tool theory and operation.

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

1. Select the proper cutting tool and operation for producing a part to meet the specifications on a drawing.
2. Use precision instruments for setting up machines to produce parts from drawings with geometric dimensions and tolerances
3. Use precision instruments to measure the finished part for quality control applications.
4. Select and use carbide cutting tools for metal removal.
5. Calculate proper cutting speeds and feeds.
6. Identify the correct sequence of operations.
7. Select the proper grinding wheel media, speeds and feeds, and coolant for grinding applications.
8. Identify the different methods of electric discharge machining including sinker electric discharge machining, wire electric discharge machining, electric discharge grinding, and electro-chemical machining.

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