



IMT 1190 Tool and Die Technology Course Syllabus

Rhodes State College
Division of Information Technology/Engineering Technology
Integrated Systems Engineering Technologies
Instructor:
*Office Hours:
E-mail: @rhodesstate.edu
E- Portfolio: N
*Office Hours: **TBD**

2 Credit Hours
3 Contact Hours
Term: Spring
Phone: **TBD**
Office: **TBD**

If Applicable:
TAG: N
Ohio Transfer Module: N
OAN: N/A

Mission Statement: Rhodes State College changes lives, build futures and improve communities through life-long learning.

Program Mission Statement: The ISET Department fosters the professional and intellectual growth of students by offering contemporary curricula that are taught by qualified faculty who provide a supportive environment intended to develop critical thinking, an appreciation of global diversity and the capacity for life-long learning. Further, the faculty of the MET department, understands the difficulties of being a college student, especially part-time, and strives to make the experience as stress free as possible while maintaining the academic integrity of the program.

Department: Roger Newhouse, Chair
JJC-131
419-995-8139
newhouse.r@rhodesstate.edu

Division: Dr. Kenneth Baker, Dean
JJC-117
419-995-8887
baker.k@rhodesstate.edu

OVERVIEW

Catalog Description: Introduces the fundamentals of tool and die technology as it relates to the manufacturing industry. Covers the various types of dies, and machining processes required to make dies and the impact of lean manufacturing on die selection.

Prerequisites/Co-requisites: None
Lecture and Class: 1 Lecture; 2 Lab
Course Delivery: Traditional

TEXT AND MATERIALS/SUPPLIES:

Smith, Bakerjian, Die Design Handbook, 3rd Edition, SME, ISBN: 9780872633759

COURSE STUDENT LEARNING OUTCOMES:

The student will be able to:

- Explain different types of dies.
- Describe why there are different types of dies.
- Discuss the different machining process required to make dies.
- Discuss the importance of material and the heat treating process of dies.
- Discuss lean manufacturing and the impact on die selection and manufacturing.

SCHEDULE OF INSTRUCTIONAL ACTIVITIES

See schedule outlined below:

Assessment Methods: Quizzes, and/or exams.

| Week | Topic | Assignments |
|-------|--|-------------|
| 1 | Press Data Ch 27, Stamping Design Ch 2 | |
| 2 | Die Ch 3, 4 & 5 | |
| 3 | Bending Dies/Metal Ch 6 & 7 | |
| 4 | Forming Dies Ch 9& 10 | Quiz |
| 5 | Metals Ch 8 | |
| 6 | Deep Draw Ch 11 & 12 | |
| 7 | Compression Ch 15 | |
| 8 | Progressive Dies Ch 16 | |
| 9 | Progressive Dies Ch 17 | Quiz |
| 10 | Progressive Dies Ch 18 | |
| 11 | Tools Ch 20 | |
| 12 | Die Sets Ch 22 | |
| 13 | Die Sets Ch 22 cont. | |
| 14 | Ferrous Die Materials Ch 28 | |
| 15 | Review for Finals | |
| Final | Final Exam | |

LABORATORIES, CLINICALS, FIELD WORK/ SPECIAL REQUIREMENTS

Lab time is scheduled as part of the class. Labs can be completed outside of class on compatible computers.

Lab handouts provided by Instructor

TESTING AND EVALUATION

The breakdown for evaluation is as follows:

Labs will be worth 70% of final grade.

Quizzes 2 @ 30 points each

Exams 1 @ 100 points each

Total 130 points + Labs

The student's final grade will be determined as follows:

GRADING SCALE 95-100% A, 90-94% A-, 87-89% B+, 83-86% B, 80-82% B-, 77-79% C+, 73-76% C, 70-72% C-, 67-69% D+, 60-66% D, 0- 59% E

INSTRUCTOR EXPECTATIONS

TBD

COURSE BIBLIOGRAPHY AND/OR ADDITIONAL REFERENCES (Optional)

TBD

This syllabus can be changed at the discretion of the lead instructor or chair of the program with advance notice.