

SYLLABUS
PART I
EDISON STATE COMMUNITY COLLEGE
MFG 253S DIE MAINTENANCE
3 CREDIT HOURS

COURSE DESCRIPTION

Explores the overall maintenance procedures and best practices of die maintenance. Students will track maintenance schedules and applied costs through practical exercises. Although mechanical repair of broken dies will be explored, focus will be on preventative maintenance through aggressive maintenance checks schedules. Prerequisite: MFG-252S.

COURSE GOALS

The student will:

| Bloom's Level | | Program Outcomes |
|---------------|--|------------------|
| 3 | 1. Identify and apply the appropriate maintenance schedules. | 6 |
| 3 | 2. Develop cost analysis in relationship to maintenance practices. | 6 |
| 3 | 3. Identify and correct production scheduling problems. | 6 |
| 3 | 4. Develop theoretical model on successful die maintenance technique during production run resulting in zero loss of uptime. | 7 |
| 3 | 5. Demonstrate mechanical techniques of die repair utilizing machine and hand tools. | 1, 2, 3 |

CORE VALUES

The Core Values are a set of principles that guide in creating educational programs and environments at Edison. They include communication, ethics, critical thinking, human diversity, inquiry/respect for learning, and interpersonal skills/teamwork. The goals, objectives, and activities in this course will introduce/reinforce these Core Values whenever appropriate.

TOPIC OUTLINE

1. Good Maintenance Practices
2. Costs of Die Maintenance
3. Effective Die Maintenance Program Strategy
4. Die Maintenance Documentation and Tracking
5. Press Selection and Maintenance
6. Solving Punch Head Breakage Problems
7. Troubleshooting Large Panel Stamping Dies
8. Repairing Damaged Die Steels and Castings
9. Waveform Signature Analysis