

ILLINOIS VALLEY COMMUNITY COLLEGE



COURSE OUTLINE

DIVISION: Workforce Development

COURSE: MET 1204; Tooling Processes I

Date: Spring 2014

Credit Hours: 3

Prerequisite(s): MET-1202, MET 1203

Delivery Method:

<input checked="" type="checkbox"/> Lecture	1.5 Contact Hours (1 contact = 1 credit hour)
<input type="checkbox"/> Seminar	0 Contact Hours (1 contact = 1 credit hour)
<input checked="" type="checkbox"/> Lab	3 Contact Hours (2 contact = 1 credit hour)
<input type="checkbox"/> Clinical	0 Contact Hours (3 contact = 1 credit hour)
<input type="checkbox"/> Online	
<input type="checkbox"/> Blended	

Offered: Fall Spring Summer

IAI Equivalent –**Only for Transfer Courses**–go to <http://www.itransfer.org>.

CATALOG DESCRIPTION:

This course covers the fundamentals of press tool design and die making principles. Students develop an understanding of basic die types such as piercing, blanking, and stamping. Emphasis is placed on the above die making principles, with students working in a hands-on environment to produce a series of elementary press tools for secondary die operations.

GENERAL EDUCATION GOALS ADDRESSED

[See the last page of this form for more information.]

Upon completion of the course, the student will be able:

[Choose those goals that apply to this course.]

- To apply analytical and problem solving skills to personal, social and professional issues and situations.
- To communicate orally and in writing, socially and interpersonally.
- To develop an awareness of the contributions made to civilization by the diverse cultures of the world.
- To understand and use contemporary technology effectively and to understand its impact on the individual and society.
- To work and study effectively both individually and in collaboration with others.
- To understand what it means to act ethically and responsibly as an individual in one's career and as a member of society.
- To develop and maintain a healthy lifestyle physically, mentally, and spiritually.
- To appreciate the ongoing values of learning, self-improvement, and career planning.

EXPECTED LEARNING OUTCOMES AND RELATED COMPETENCIES:

[Outcomes related to course specific goals.]

Upon completion of the course, the student will be able to:

1. Care for and use advanced precision measuring tools.
2. Understand the care and advanced safe operation of lathes, milling machines, and surface grinders.
3. Use the above mentioned tools and machines to build complex parts and simple tooling from prints.
4. Display proficient knowledge of tooling design and construction

COURSE TOPICS AND CONTENT REQUIREMENTS:

- 1.0 Safety
- 2.0 Die design, principles, terminology, and Classifications
- 3.0 Strips, Blanks, and Clearances
- 4.0 Die Blocks, Strippers, and Punches
- 5.0 Die Fasteners and Die Sets
- 6.0 Types of Presses
- 7.0 Tool steel identification and application

INSTRUCTIONAL METHODS:

Lecture
Hands-on Lab
Demonstration
Computer software/Instructional DVD's

INSTRUCTIONAL MATERIALS:

Die Design Fundamentals, Third Edition, by Boljanovic and Paquin
ISBN 0-8311-3119-5

STUDENT REQUIREMENTS AND METHODS OF EVALUATION:

Quizzes

Tests

Project work

Attendance

OTHER REFERENCES

Course Competency/Assessment Methods Matrix

MET 1204; Tooling Processes I		Assessment Options																															
For each competency/outcome place an "X" below the method of assessment to be used.	Assessment of Student Learning	Article Review	Case Studies	Group Projects	Lab Work	Oral Presentations	Pre-Post Tests	Quizzes	Written Exams	Artifact Self Reflection of Growth	Capstone Projects	Comprehensive Written Exit Exam	Course Embedded Questions	Multi-Media Projects	Observation	Writing Samples	Portfolio Evaluation	Real World Projects	Reflective Journals	Applied Application (skills) Test	Oral Exit Interviews	Accreditation Reviews/Reports	Advisory Council Feedback	Employer Surveys	Graduate Surveys	Internship/Practicum /Site Supervisor Evaluation	Licensing Exam	In Class Feedback	Simulation	Interview	Written Report	Assignment	
	Direct/ Indirect	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	I	I	I	I	D	D							
1.0 Safety								X	X																								
2.0 Die design, principles, terminology, and Classifications				X				X	X																								
3.0 Strips, Blanks, and Clearances				X				X	X																								
4.0 Die Blocks, Strippers, and Punches				X				X	X																								
5.0 Die Fasteners and Die Sets				X				X	X																								
6.0 Types of Presses			X	X				X	X																								
7.0 Tool steel identification and application				X	X			X	X																						X		