ILLINOIS VALLEY COMMUNITY COLLEGE

COURSE OUTLINE

DIVISION: Workforce Development

COURSE: MET 1205; Tooling Processes II

Date: Spring 2014

Credit Hours: 3

Prerequisite(s): MET 1202, MET 1203, MET 1204

Delivery Method:		
	☒ **Lecture**	**1.5 Contact Hours (1 contact = 1 credit hour)**
	☐ **Seminar**	**0 Contact Hours (1 contact = 1 credit hour)**
	☒ **Lab**	**3 Contact Hours (2 contact = 1 credit hour)**
	☐ **Clinical**	**0 Contact Hours (3 contact = 1 credit hour)**
	☐ **Online**	
	☐ **Blended**	

Offered: ☒ **Fall** ☒ **Spring** ☐ **Summer**

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

CATALOG DESCRIPTION:
This course is a continuation of MET 1204. Students will further develop their understanding of press tool processes. Emphasis in this course shifts from simple secondary type tooling to more complex progressive dies. Students will help design and build a working progressive die. Lecture, one and one half hours per week; lab, three hours per week.

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. Furthering knowledge of the intricacies of punch press dies in the field of metal stamping.
2. Understanding the pros and cons of progressive tooling as opposed to secondary operations of punch press dies.
3. To provide more in depth hands-on opportunities in areas of die making and pertaining to design, tolerances, fits, construction sequences, and die assembly.

COURSE TOPICS AND CONTENT REQUIREMENTS:

1. 0 Strip Layout , Material Utilization
2. 0 Feed Progression
3.0 Die Design
4.0 Feeds
5.0 Power Presses
6.0 Die Construction
7.0 Tool Steels
Lab - Advanced Topics in Lathe Operations, Milling Machine Operations

INSTRUCTIONAL METHODS:

Lecture
Demonstration
Hands-on Lab

INSTRUCTIONAL MATERIALS:

TEXT: Die Design: Paquin, Crowley: 1987 ISBN 0-8311-1172-0

STUDENT REQUIREMENTS AND METHODS OF EVALUATION:
Quizzes
Tests
Comprehensive Final
Lab projects

OTHER REFERENCES

Course Competency/Assessment Methods Matrix

MET 1205; Tooling Processes II	**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
Assessment Measures – Are direct or indirect as indicated. List competencies/outcomes below.	**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 Strip Layout, Material Utilization					X			X	X			X																					
2.0 Feed Progression					X			X	X			X																					
3.0 Die Design					X			X	X			X																					
4.0 Feeds								X	X			X																					
5.0 Power Presses								X	X			X																					
6.0 Die Construction					X			X	X			X																					
7.0 Tool Steels					X			X	X			X																					