

Washtenaw Community College Comprehensive Report

MST 230 Advanced Motorcycle Fabrication

Proposed start term: Fall 2010

Course Cover

Division: Vocational Technologies

Department: Motorcycle Technology

Discipline: Motorcycle Service Technology

Course Number: 230

Org Number: 14140

Full Course Title: Advanced Motorcycle Fabrication

Transcript Title: Adv. Motorcycle Fabrication

Is Consultation with other department(s) required: No

Publish in the Following: College Catalog , Time Schedule , Web Page

Reason for Submission: Course Change

Change Information:

Pre-requisite, co-requisite, or enrollment restrictions

Rationale: Course will become an elective in the Motorcycle Service Technology II advanced certificate. Change prerequisites to require instructor or department chair permission.

Proposed Start: Fall 2010

Course Description: This course begins the integration of the knowledge and skills acquired in the Motorcycle Service Technology programs and from coursework in Welding and Fabrication and Machine Tool Technology. Students will practice design skills including pattern development, mechanical drawing and fastener selection in the creation of a custom motorcycle frame, swing arm or billet accessory. Designed parts will be fabricated using welding, milling machine and lathe operation skills on various types of building materials including body sheet metal.

Course Credit Hours

Variable hours: No

Credits: 3

Lecture Hours: Instructor: 30 Student: 30

Lab: Instructor: 30 Student: 30

Clinical: Instructor: 0 Student: 0

Other: Instructor: 0 Student: 0

Total Contact Hours: Instructor: Student:

Repeatable for Credit: NO

Grading Methods: Letter Grades

Are lectures, labs, or clinicals offered as separate sections?: NO (same sections)

College-Level Reading and Writing

College-level Reading & Writing

Requisites

Prerequisite

Academic Reading and Writing Levels of 6; consent required

General Education

Request Course Transfer

Proposed For:

Student Learning Outcomes

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1. Apply the theory and operation of sheet metal forming tools and equipment to fabrication tasks.

Assessment 1

Assessment Tool: Practical lab exams

Assessment Date: Fall 2012

Assessment Cycle: Every Three Years

Course section(s)/other population: all

Number students to be assessed: all

How the assessment will be scored: Practical lab exams will be scored using departmentally-developed rubric.

Standard of success to be used for this assessment: 75% of the students will score an overall average at or above the intermediate level.

Who will score and analyze the data: Department member not teaching the course that term.

2. Design and fabricate custom motorcycle frames and frame components.

Assessment 1

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Assessment Date: Fall 2012

Assessment Cycle: Every Three Years

Course section(s)/other population: all

Number students to be assessed: all

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3. Design and fabricate accessories for custom motorcycles.

Assessment 1

Assessment Tool: Practical lab exams

Assessment Date: Fall 2012

Assessment Cycle: Every Three Years

Course section(s)/other population: all

Number students to be assessed: all

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Who will score and analyze the data: Department member not teach the course that term.

Course Objectives

1. Demonstrate proficiency in the design of custom motorcycle sheet metal components including fenders, fuel and oil tanks, spoilers and fairing.

Methods of Evaluation

Activity or Exercise

Exams/Tests

Matched Outcomes

1. Apply the theory and operation of sheet metal forming tools and equipment to fabrication tasks.

2. Demonstrate proficiency in the use of metal forming tools and equipment to fabricate components.

Methods of Evaluation

Activity or Exercise

Exams/Tests

Matched Outcomes

1. Apply the theory and operation of sheet metal forming tools and equipment to fabrication tasks.

3. Demonstrate proficiency in the design of custom motorcycle frames and frame components.

Methods of Evaluation

- Activity or Exercise
- Exams/Tests

Matched Outcomes

2. Design and fabricate custom motorcycle frames and frame components.

4. Demonstrate proficiency in the fabrication of custom motorcycle frames and frame components.

Methods of Evaluation

- Activity or Exercise
- Exams/Tests

Matched Outcomes

2. Design and fabricate custom motorcycle frames and frame components.

5. Demonstrate proficiency in the design of accessories for custom motorcycles including exhaust systems and other add-ons.

Methods of Evaluation

- Activity or Exercise
- Exams/Tests

Matched Outcomes

3. Design and fabricate accessories for custom motorcycles.

6. Demonstrate proficiency in the fabrication of custom accessories for motorcycles.

Methods of Evaluation

- Activity or Exercise
- Exams/Tests

Matched Outcomes

3. Design and fabricate accessories for custom motorcycles.

New Resources for Course**Course Textbooks/Resources**

- Textbooks
- Manuals
- Periodicals
- Software
- Other

Equipment/Facilities

- Level III classroom