

Washtenaw Community College Comprehensive Report

MST 106 Introduction to Powder Coating Effective Term: Fall 2025

Course Cover

College: Advanced Technologies and Public Service Careers

Division: Advanced Technologies and Public Service Careers

Department: Transportation Technologies

Discipline: Motorcycle Service Technology (new)

Course Number: 106

Org Number: 14100

Full Course Title: Introduction to Powder Coating

Transcript Title: Introduction to Powder Coating

Is Consultation with other department(s) required: No

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

Reason for Submission: Inactivation

Change Information:

Consultation with all departments affected by this course is required.

Rationale: This course has been phased out.

Proposed Start Semester: Fall 2025

Course Description: In this course, students are introduced to the basic principles and process of powder coating, a finishing process for vehicle components that is an alternative to painting. Students will be introduced to tooling, media and procedures used to powder coat small components. Other topics such as project management and resource development will be covered.

Course Credit Hours

Variable hours: No

Credits: 3

Lecture Hours: Instructor: 30 **Student:** 30

Lab: Instructor: 30 **Student:** 30

Clinical: Instructor: 0 **Student:** 0

Total Contact Hours: Instructor: 60 **Student:** 60

Repeatable for Credit: NO

Grading Methods: Letter Grades

Audit

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

College-Level Reading and Writing

College-level Reading & Writing

College-Level Math

No Level Required

Requisites

Prerequisite

MST 110 minimum grade "C"

or

Prerequisite

ATT 111 minimum grade "C"

or

Prerequisite

ATT 130 minimum grade "C"

General Education**Request Course Transfer****Proposed For:****Student Learning Outcomes**

1. Recognize and differentiate the basic powder coating processes as they relate to various base materials.

Assessment 1

Assessment Tool: Student achievement checklist

Assessment Date: Spring/Summer 2019

Assessment Cycle: Every Three Years

Course section(s)/other population: All Sections

Number students to be assessed: All Students

How the assessment will be scored: Departmentally-developed rubric

Standard of success to be used for this assessment: 70% of the students will score 70% or higher.

Who will score and analyze the data: Departmental faculty

Assessment 2

Assessment Tool: Process mapping assignment

Assessment Date: Spring/Summer 2019

Assessment Cycle: Every Three Years

Course section(s)/other population: All Sections

Number students to be assessed: All Students

How the assessment will be scored: Departmentally-developed rubric

Standard of success to be used for this assessment: 70% of the students will score 70% or higher.

Who will score and analyze the data: Departmental faculty

2. Create time schedules, identify suppliers and anticipate costs related to powder coating jobs.

Assessment 1

Assessment Tool: Cost-benefit analysis assignment

Assessment Date: Spring/Summer 2019

Assessment Cycle: Every Three Years

Course section(s)/other population: All Sections

Number students to be assessed: All Students

How the assessment will be scored: Departmentally-developed rubric

Standard of success to be used for this assessment: 70% of the students will score 70% or higher.

Who will score and analyze the data: Departmental faculty

3. Operate appropriate equipment to powder coat various small components.

Assessment 1

Assessment Tool: Student achievement checklist

Assessment Date: Fall 2016

Assessment Cycle: Every Three Years

Course section(s)/other population: All Sections

Number students to be assessed: All Students

How the assessment will be scored: Departmentally-developed rubric

Standard of success to be used for this assessment: 70% of the students will score 70% or higher.

Who will score and analyze the data: Departmental faculty

Course Objectives

1. Research the sources, types and differences of powder coating media.
2. Develop cost estimates for powder coating projects.
3. Develop and document a plan for component preparation before powder coating.
4. Correctly identify the base substrate material.
5. Identify appropriate masking and plugging techniques for small components.
6. Apply appropriate masking and plugging techniques for small components.
7. Select correct powder coating media for the desired type and final surface finish.
8. Select the appropriate application techniques for the desired finish.
9. Apply single stage powder coat for small component refinishing.

New Resources for Course

Course Textbooks/Resources

Textbooks

Manuals

Periodicals

Software

Equipment/Facilities

Level III classroom

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer:		
<i>Rocky Roberts</i>	<i>Faculty Preparer</i>	<i>Jan 09, 2025</i>
Department Chair/Area Director:		
<i>Rocky Roberts</i>	<i>Recommend Approval</i>	<i>Jan 09, 2025</i>
Dean:		
<i>Eva Samulski</i>	<i>Recommend Approval</i>	<i>Jan 17, 2025</i>
Curriculum Committee Chair:		
<i>Randy Van Wagnen</i>	<i>Reviewed</i>	<i>Apr 24, 2025</i>
Assessment Committee Chair:		
Vice President for Instruction:		
<i>Brandon Tucker</i>	<i>Approve</i>	<i>Apr 28, 2025</i>

Washtenaw Community College Comprehensive Report

MST 106 Introduction to Powder Coating

Effective Term: Fall 2019

Course Cover

Division: Advanced Technologies and Public Service Careers

Department: Motorcycle Technology

Discipline: Motorcycle Service Technology

Course Number: 106

Org Number: 14140

Full Course Title: Introduction to Powder Coating

Transcript Title: Introduction to Powder Coating

Is Consultation with other department(s) required: No

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

Reason for Submission:

Change Information:

Consultation with all departments affected by this course is required.

Rationale: Three year master syllabus update based on course assessment information.

Proposed Start Semester: Spring/Summer 2019

Course Description: In this course, students are introduced to the basic principles and process of powder coating, a finishing process for vehicle components that is an alternative to painting. Students will be introduced to tooling, media and procedures used to powder coat small components. Other topics such as project management and resource development will be covered.

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Prerequisite

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General Education**Request Course Transfer**

Proposed For:

Student Learning Outcomes

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Assessment Tool: Student achievement checklist

Assessment Date: Spring/Summer 2019

Assessment Cycle: Every Three Years

Course section(s)/other population: All Sections

Number students to be assessed: All Students

How the assessment will be scored: Departmentally-developed rubric

Standard of success to be used for this assessment: 70% of the students will score 70% or higher.

Who will score and analyze the data: Departmental faculty

Assessment 2

Assessment Tool: Process mapping assignment

Assessment Date: Spring/Summer 2019

Assessment Cycle: Every Three Years

Course section(s)/other population: All Sections

Number students to be assessed: All Students

How the assessment will be scored: Departmentally-developed rubric

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New Resources for Course

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Periodicals
Software

Equipment/Facilities

Level III classroom

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer:		
<i>Shawn Deron</i>	<i>Faculty Preparer</i>	<i>Feb 28, 2019</i>
Department Chair/Area Director:		
<i>Shawn Deron</i>	<i>Recommend Approval</i>	<i>Feb 28, 2019</i>
Dean:		
<i>Brandon Tucker</i>	<i>Recommend Approval</i>	<i>Mar 11, 2019</i>
Curriculum Committee Chair:		
<i>Lisa Veasey</i>	<i>Recommend Approval</i>	<i>Apr 02, 2019</i>
Assessment Committee Chair:		
<i>Shawn Deron</i>	<i>Recommend Approval</i>	<i>Apr 03, 2019</i>
Vice President for Instruction:		
<i>Kimberly Hurns</i>	<i>Approve</i>	<i>Apr 07, 2019</i>