

Washtenaw Community College Comprehensive Report

ATT 136 History of Transportation Technologies Effective Term: Fall 2025

Course Cover

College: Advanced Technologies and Public Service Careers

Division: Advanced Technologies and Public Service Careers

Department: Transportation Technologies

Discipline: Automotive & Transportation Tech (new)

Course Number: 136

Org Number: 14100

Full Course Title: History of Transportation Technologies

Transcript Title: History of Transportation Tech

Is Consultation with other department(s) required: Yes

Please Explain:

Consulted with HST faculty, creating crosslisted course.

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

Reason for Submission: New Course

Change Information:

Rationale: This course provides students from all disciplines with a comprehensive understanding of the automobile's impact on society through technological, cultural, and policy advancements. By examining key innovations in powertrains, safety, alternative propulsion, and global manufacturing, students gain valuable insights into how these developments shape society and the environment, supporting WCC's mission to foster well-rounded, globally aware thinkers.

Proposed Start Semester: Fall 2025

Course Description: In this course, students will explore the historical and technological changes associated with internal combustion and electric vehicles from their inception in the 1800s through the 21st century. Topics include, but are not limited to, mass production, evolution of powertrain systems, organized labor, the Great Depression, iterations of body style, the interstate highway system, the energy crisis of the 1970s, development of emission control systems, the influx of foreign competition, and the aftermath of the 2008 economic crisis and its effect on the automotive industry. Aspects of manufacturing, changing technology, and consumer demand will be addressed within this sociocultural and historical context.

Course Credit Hours

Variable hours: No

Credits: 3

Lecture Hours: Instructor: 45 **Student:** 45

Lab: Instructor: 0 **Student:** 0

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

Total Contact Hours: Instructor: 45 **Student:** 45

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

College-Level Math

No Level Required

Requisites

General Education

Request Course Transfer

Proposed For:

Student Learning Outcomes

1. Recognize the key advancements in vehicle technology and design aesthetics, and how they have influenced the evolution of transportation and cultural perceptions over time.

Assessment 1

Assessment Tool: Outcome-related exam questions

Assessment Date: Spring/Summer 2028

Assessment Cycle: Every Two Years

Course section(s)/other population: All sections

Number students to be assessed: All students

How the assessment will be scored: Answer key

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. Describe the cultural, social, and artistic factors that have driven design changes and technological advancements in the automotive industry, reflecting societal shifts and consumer needs.

Assessment 1

Assessment Tool: Outcome-related essay question(s)

Assessment Date: Spring/Summer 2028

Assessment Cycle: Every Two Years

Course section(s)/other population: All

Number students to be assessed: All

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. Identify key technological shifts in vehicle materials and design aesthetics, and their impact on production and cultural trends.
2. Describe significant innovations in vehicle design, highlighting how evolving materials and streamlined processes have influenced form and function over time.
3. Analyze the role of emerging automotive technologies such as electrification and autonomous systems in shaping modern design and cultural narratives.
4. Evaluate global variations in automotive design and production, considering cultural, aesthetic, and technological influences.
5. Examine the relationship between art, media, and automotive design, exploring how vehicles reflect societal ideals of status and identity.
6. Describe how cultural norms, changing family structures, and demographic trends have impacted transportation advancements, media representations, and consumer expectations.
7. Identify and discuss the evolution of automotive materials and their role in transforming vehicle aesthetics and production efficiency.

8. Explore Michigan's historical and contemporary role in the automotive industry, with a focus on its influence on global design trends and material usage.

New Resources for Course

Course Textbooks/Resources

Textbooks
Manuals
Periodicals
Software

Equipment/Facilities

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer: <i>Rocky Roberts</i>	<i>Faculty Preparer</i>	<i>Oct 23, 2024</i>
Department Chair/Area Director: <i>Rocky Roberts</i>	<i>Recommend Approval</i>	<i>Oct 28, 2024</i>
Dean: <i>Eva Samulski</i>	<i>Recommend Approval</i>	<i>Oct 28, 2024</i>
Curriculum Committee Chair: <i>Randy Van Wagnen</i>	<i>Recommend Approval</i>	<i>Mar 17, 2025</i>
Assessment Committee Chair: <i>Jessica Hale</i>	<i>Recommend Approval</i>	<i>Mar 20, 2025</i>
Vice President for Instruction: <i>Brandon Tucker</i>	<i>Approve</i>	<i>Mar 21, 2025</i>