

Course Requisite Change EFD Template



College of Engineering

Engineering Faculty Document No.:

EFD# 52-26

October 15, 2025

TO: The Engineering Faculty

FROM: The Faculty of the School of Mechanical Engineering

RE: Requisite Changes to ME 54455 Motorsports Aerodynamics Fund

The Faculty of the School of Mechanical Engineering has approved the following requisite changes to a graduate course. This action is now submitted to the Engineering Faculty with a recommendation for approval.

Description Change for ME 54455 Motorsports Aerodynamics Fund:

Underline the changes to be made.

From:

Credit Hours: 3.00. A study and adaptation of fluid flow and aerodynamics as applied to motorsports design and performance optimization. This course is designed to reinforce student's understanding of aerodynamics as it pertains to a race car. This course breaks down the differences between actual air flow while driving / racing versus air flow within a wind tunnel, and how these flows are different. It discusses how to evaluate those flows, and determine if they need to be improved. It discusses ways to improve the aero on race cars.

To:

Credit Hours: 3.00. A focused introductory course into the study of aerodynamic principles as applied to automotive and motorsports vehicles. This course reinforces and strengthens the knowledge of the first principles of fluid dynamics. Students will gain an understanding of fluid flow and how the resultant forces impact the performance of ground vehicles. Students will gain an understanding of vehicle aerodynamic design and test methodologies and how they are applied to performance optimization. This course breaks down the differences between on road/track aerodynamic performance, wind tunnel aerodynamic performance, and computational analysis.

Requisite Change for ME 54455 Motorsports Aerodynamics Fund

Underline the changes to be made.

FROM:

None

TO:

Requisites: ME 30801 or equivalent, MSPE 35000 or equivalent, Course is not eligible for MSPE students who have completed MSPE 48200

Co-Requisite: ME 54255

Registration Restriction Change for ME 54455 Motorsports Aerodynamics Fund

Underline the changes to be made.

FROM:

None

TO:

MSPE-BSMTE, ME-MEME-MSPE or department approval

RATIONALE:

The updates above more accurately reflect the course and background needed to be successful in the course.



Dr. Eckhard A. Groll

William E. and Florence E Perry Head of the School of Mechanical Engineering

Link to Curriculog entry:

<https://purdue.curriculog.com/proposal:34383/form>