

Course Requisite Change EFD Template



College of Engineering

Engineering Faculty Document No.:

EFD# 51-26

October 15, 2025

TO: The Engineering Faculty

FROM: The Faculty of the School of Mechanical Engineering

RE: Requisite Changes to ME 54355 Motorsports Vehicle Vibration Dynamics

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 54355 Motorsports Vehicle Vibration Dynamics:

Underline the changes to be made.

From:

Credit Hours: 3.00. An investigation into advanced topics in the field of vehicle dynamics. This course covers the principles and applications of vehicle handling dynamics from an advanced perspective in depth. The methods required to analyze and optimize vehicle handling dynamics are presented, including tire compound dynamics, vehicle planar dynamics, vehicle roll dynamics, full vehicle dynamics, and in-wheel motor vehicle dynamics. The provided vehicle dynamic model is capable of investigating drift, sliding, and other over-limit vehicle maneuvers. This is an ideal course for postgraduate and research students and engineers in motorsports, mechanical, automotive, transportation, and ground vehicle engineering.

To:

Credit Hours: 3.00. An investigation into advanced topics in the field of vehicle dynamics. This course covers the principles and applications of vehicle vibration dynamics from an advanced perspective. The methods required to analyze and optimize vehicle vibration dynamics are presented, including 1/8th car models, 1/4 car models, 1/2 car models and full car models. Students explore vehicle response dynamics in the time and frequency domain. This is an ideal course for postgraduate and research students and engineers in motorsports, mechanical, automotive, transportation, and ground vehicle engineering.

Requisite Change for ME 54355 Motorsports Vehicle Vibration Dynamics

Underline the changes to be made.

FROM:

None

TO:

Requisites: MSPE 47200 or ME 54255

Registration Restriction Change for ME 54355 Motorsports Vehicle Vibration Dynamics

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:34382/form>