

Free Minor Ergonomics - Industrial Design

Delft University of Technology | Formula Student Team Delft

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Introduction

The ergonomics of our Formula Student cars is one of the most important factors for an overall good performance and competitive car. The ergonomic design is the interface between the theoretical performance of the car, and the real human-machine interface which makes it possible for the driver to use this performance in the real world.

Students working on the design of the ergonomics of our car will need proper project management and teamwork skills, because of the very limited timeframe available (we build a new car every year) and the many dependencies of other components of the car.

Minor students will get the responsibility for the design of (part of) the ergonomics, which includes for example the seating position design, steering wheel forces, the steering wheel, dashboard information among many other parts of the human-machine interface.

This will require a significant amount of time and effort, justifying the 17EC accredited to this project. The assessment will be done by a final presentation, where focus should be put on the process applied and lessons learned. A paper needs to be written which will get a fail or pass result.

The idea behind the set-up of this minor is that several students working on different disciplines have 2 courses in common to ensure a basic level of understanding of project- and process management and decision making. This should enable the students to work more independently, while still performing as desired. The remaining ECTS will be gathered by following courses relevant for the discipline the student is working on, in this case ergonomics.

The courses suggested for an ergonomics oriented minor are:

Course	ECTS	Motivation	Period
SPM6102 Process Management and Decision Making	5	A well-structured process and good decision making are of vital importance in such a high-paced project as Formula Student.	Q2
CT3101 Project Management Basics	5	Project management skills are a big plus in such a complex, multidisciplinary project.	Q1
WB3190IO Introduction Vehicle Dynamics, Automated Driving & Safety	3	Introduction to vehicle design to understand the scope of the entire project and the problems involved in race car design	Q1 and Q2