

Tárgytematika / Course Description Project Spring

AJNM_JFTA004

Tárgyfelelős neve /

Teacher's name: dr. Tamándi László

Félév / Semester: 2023/24/2

Beszámolási forma /

Assesment: Folyamatos számonkérés

Tárgy heti óraszám /

Teaching hours(week): 0/2/0/0

Tárgy féléves óraszám /

Teaching hours(sem.): 0/0/0/0

OKTATÁS CÉLJA / AIM OF THE COURSE

Aim of the course is to enhance the project-focused engineering skills (as e.g. time management, communication, stakeholder management, reporting) and teamwork.

This subject targets the enhancement of individual/small group engineering work of students in different fields of vehicle development. The application of theoretical knowledge is required - in the field of CFD, durability and fatigue, vibration and acoustics etc. Selected works are also realized in a student-made race car.

TANTÁRGY TARTALMA / DESCRIPTION

Time schedule of the course:

Choice of the themes; Construction of the project groups; Project definition, properties

Determination of the project objectives and the non-objectives; Distribution of the tasks

Scheduling; Cost planning

Submission of the project plans; Reports/presentations on the approved project plans

Interim reports with feedback: Project phases, Roles in the project, Abilities of the Project Leader, Communication in the project, Changes in the project, Teamwork, Risk management, Project completion, activities after the project completion, Project-, Program-, Portfolio Management

Submission of the finite project documentation; Final reports with presentation

Main professional topics of the projects:

chassis (strength, fatigue, vibration ...)

composites (cover and load carrying elements, monocoque ...)

suspension (types, optimization and fine tuning, wheels, wheel hubs and uprights ...)

steering (mechanism, steering wheel ...)

vehicle electronics (power and control electronics, telemetry, electric drive ...)

drivetrain

engine

aerodynamics (drag- and downforce, diffuser, wings - CFD simulations and measurements ...)

race team management (media appearance, sponsor management, team image, financials ...)

SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESMENT'S METHOD

KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

Project Management Institute: A Guide to the Project Management - Body of Knowledge, ISBN 978-1-9355-8967-9

Joseph Heagney: Fundamentals of Project Management, ISBN 978-0-8144-1748-5;

Michael L. George et. al: Lean Six Sigma Pocket Toolbook, ISBN 978-0-0714-4119-3

AJÁNLOTT IRODALOM / RECOMMENDED MATERIAL