Academic year 2021-2022

MECA0063 Vehicle Architecture and Components

Prof. P. Duysinx
Ir P. ALARCON

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Day		Title	Lecturer
Thursday	**10/02**	**Welcome session- General Layout of Vehicles**	**P. Duysinx**
		Project Presentation: Lightweight design of a gear box cover	
Thursday	**17/02**	**Structural design of car bodies**	**P. Duysinx**
		Introduction to topology optimization	**P. Duysinx**
Thursday	**24/02**	**Transmission 1 – Clutch, MT**	**Duysinx**
		Introduction to topology optimization	**P. Alarcon**
Thursday	**03/03**	**Transmission 2 – AT, CVT, and Differential**	**P. Duysinx**
		Project milestone 1: Topology optimization	
Thursday	**10/03**	~~**Seminar 1: Introduction to lightweight design**~~	~~**M. Belhabib (FORD)**~~
Thursday	**17/03**	**Suspension 1 – Design criteria**	**P. Duysinx**
Thursday	**24/03**	**Suspension 2 – Technologies**	**P. Duysinx**
Thursday	**31/03**	**Suspension 3 – Anti Dive / Anti Squat** **Suspension 4 – Elements**	**P. Duysinx**
		Project milestone 2: Pitch of new concepts	
Thursday	**07/04**	**EASTERN BREAK**	
		~~**Visit of JTEKT Torsen @ Streppy Braquegnies**~~	~~**N. Poulet (JTEKT)**~~
Thursday	**14/04**	**EASTERN BREAK**	
Thursday	**21/04**	**Steering Systems**	**P. Duysinx**
Thursday	**28/04**	**Seminar 2: Electric traction motors. Electrified automotive powertrains – technology overview and details about Toyota Hybrid System**	**R. Schuermans (TME)**
Thursday	**05/05**	**Braking systems**	**P. Duysinx**
Thursday	**12/05**	**Introduction to passive and active safety**	**P. Duysinx**
		ABS systems	**P. Duysinx**
Thursday	**19/05**	**Seminar 3: ADAS systems**	**F. Christen (FORD)**
		Project deliverable: report	