Professor Robert F. SINGER

2. Lectures on light materials and structures for transportation for students from Faculty of Materials Science and Engineering WUT

*Light weight materials - competing approaches, basics of alloy selection*
Competing systems (Mg, Al, Ti, polymers, fibre reinforcement, dispersion strengthening), figures of merit in light weight construction, Ashby maps, driving forces (government regulation ...).

*Light weight materials - recent progress in technical development*
Injection moulding of Mg, integral foam moulding, smart materials by die casting, fibre reinforcement in polymers and metals through preform infiltration, Temconex technology, freeform fabrication.

Each lecture lasting 2 * 45 minutes.
Followed by 45 discussion and a short test for students.

Practical classes on light materials and structures for transportation for students from Faculty of Materials Science and Engineering WUT

*Light weight materials - competing approaches, basics of alloy selection*
Competing systems (Mg, Al, Ti, polymers, fibre reinforcement, dispersion strengthening), figures of merit in light weight construction, Ashby maps, driving forces (government regulation ...).

*Light weight materials - recent progress in technical development*
Injection moulding of Mg, integral foam moulding, smart materials by die casting, fibre reinforcement in polymers and metals through preform infiltration, Temconex technology, freeform fabrication.

Each practical classes lasting 4 * 45 minutes.
Followed by 45 discussion and a short test for students.