

Course Title and Code: Tribology / TRI

Course form	Lecture
Study Type	Undergraduate (Bachelor level)
Module responsible	Prof. Dr.-Ing. Klaus Dürkopp klaus.duerkopp@hsbi.de
Language	English
Turnus	On request
Recommended prerequisites	English level B2
Course Description	<p><u>Learning outcomes</u></p> <p>The students can identify tribological relationships and their significance and gain an overview of the field of knowledge. They are able to analyse and evaluate tribological systems. From the determination of influencing factors, the students can develop suitable measures for system optimisation with regard to friction and wear.</p> <p><u>Content</u></p> <p>Friction: Types and mechanisms of friction; dry and media-affected friction; material, surface and movement influences. Wear: Types of wear and wear phenomena; damage mechanisms; wear minimisation. Lubrication: Classification, characteristic values, lubrication methods. Measurement of friction, wear and lubricant parameters. Selected examples of tribological systems.</p>
Assessment type	Project presentation
Credit Points	2,5
Literature (extract)	<p>CZICHOS, H.; HABIG, K.H.: Tribologie-Handbuch: Tribometrie, Tribomaterialien, Tribotechnik. Springer Vieweg 2020.</p> <p>KRAUSE, H.; POLL, G.: Mechanik der Festkörperreibung. VDI - Verlag, Düsseldorf, 1980.</p> <p>BARTZ, W.J.: Handbuch der Tribologie und Schmierungstechnik; Band 1. Zur Geschichte der Tribologie. Ehningen bei Böblingen, 1988.</p> <p>https://www.gft-ev.de</p> <p>https://de.oelcheck.com</p>