

<b>Name of module:</b>	Tolerancing (GD&T)
<b>Keywords:</b>	Datum, Dimension, Tolerance, geometrical product specification, GPS, size, tolerance analysis
<b>Module number:</b>	Not compulsory
<b>Target groups:</b>	4 - 7 Semester, exchange students
<b>ECTS-Credits:</b>	2
<b>Language of instruction:</b>	English
<b>Module owner:</b>	Prof. Dr.-Ing. Horst Haberhauer
<b>Date of last change:</b>	30.08.2013

**Extent of work (hours)**

Workload	Contact hours	Self study	Exam preparation
60	25	25	10

<b>Prerequisites:</b>	Basic knowledge about tolerancing
<b>Total target:</b>	It is estimated that 80% of all manufacturing issues are directly related to improper use of GD&T. After the lecture students have strengthened their understanding of tolerance calculation and are able to apply the state-of-the-art according to ISO-tolerance system and tolerance calculations.
<b>Module number:</b>	Not compulsory
<b>Module content:</b>	<ul style="list-style-type: none"> <li>• New tolerancing standards                             <ul style="list-style-type: none"> <li>• Geometry Product specification</li> <li>• Consequences of new ISO 14405 and 8015</li> </ul> </li> <li>• Dimension and geometry tolerances</li> <li>• Datums and datum systems</li> <li>• Tolerancing principles</li> <li>• Maximum and minimum requirements</li> <li>• Arithmetical und statistical tolerance calculation</li> <li>• Determinations of tolerances depend on                             <ul style="list-style-type: none"> <li>• function</li> <li>• production</li> <li>• checking</li> </ul> </li> <li>• Case studies</li> </ul>
<b>Reference material:</b>	Lecture notes
<b>Offered:</b>	Every semester
<b>Relevance for other study programs:</b>	Automotive Engineering

**Submodules and assessments**

<b>Title of submodule:</b>	Tolerancing (GD&T)
<b>Type of instruction / form of learning:</b>	Lectures, practices and exam preparation
<b>Hours per week:</b>	2
<b>Target groups:</b>	4 - 7 Semester, exchange students
<b>Aims, learning outcomes:</b>	See above
<b>Estimated student workload:</b>	60 h
<b>Type of assessment:</b>	Term paper and written exam (60 min)