

Course title	<i>Advanced Manufacturing</i>
Course code	<i>WINM232</i>
Module coordinator	<i>Miriam Heinrich</i>
Lecturer	<i>Prof. Dr. Christoph Roser</i>
Level of course	<i>Master</i>
Recommended prerequisites	<i>(none)</i>
Type of course	<i>Lecture</i>
Weekly lecture hours (SWS)	<i>2</i>
ECTS credits	<i>2.5</i>
Workload	<i>in total 60 h, 30 h course attendance, 30 h self-study</i>
Assessment (grading; pass/fail)	<i>graded</i>
Regular cycle	<i>Summer semester</i>
Language of instruction	<i>English</i>
Contents:	<ul style="list-style-type: none"> <li>• <i>Background and Introduction of modern production.</i></li> <li>• <i>Introduction of the topic.</i></li> <li>• <i>Advanced Manufacturing Organization</i></li> <li>• <i>Advanced Manufacturing Materials</i></li> <li>• <i>Advanced Manufacturing Technologies</i></li> <li>• <i>Estimation of consequences of technological change with particular focus on social effects.</i></li> </ul>
Learning outcome (competencies):	<i>Overview of different recent developments in manufacturing. This includes new materials, production methods, and production control. Special focus is on the rapid advancement of computer technology. Its influence on society is also investigated. These examples are used for evaluation of possible disruptive technologies.</i>
Teaching methods	<input checked="" type="checkbox"/> <i>Lecture</i> <input type="checkbox"/> <i>Group work</i> <input type="checkbox"/> <i>Exercises</i> <input type="checkbox"/> <i>Simulation</i> <input type="checkbox"/> <i>Video feedback</i> <input type="checkbox"/> <i>Others:</i>
Assessment methods	<i>Written exam, 45 minutes</i>
Recommended reading	<i>Abele E., Reinhart G., 2011 Zukunft der Produktion, Carl Hanser Verlag. Brynjolfsson, E., McAfee, A., 2012. Race Against the Machine. Digital Frontier Press.</i>
Additional information	<i>n/a</i>
Recognition of credits	