

Title of course	Automotive Technology Management
Responsible instructor	Prof Dr Michael Dornieden
Learning objectives	<ul style="list-style-type: none"> ▪ Identify relevant market framework conditions of carmakers ▪ Realize the economic importance of the automotive industry ▪ Know automotive key figures in respect to particular countries ▪ Categorize the product portfolio of automotive suppliers ▪ Examine and understand future trends of automotive markets and resource requirements of carmakers (e.g. electromobility) ▪ Critically evaluate strategic alliances between carmakers currently in practical company use and develop an understanding of how they can be improved in order to reach the desired organizational goals ▪ Know theoretical foundations of product lifecycle management ▪ Characterize the six phases of the Generic Product Development Process and demonstrate its application to new vehicle projects ▪ Solve complex engineering problems in new vehicle projects by using variants of the Generic Product Development Process ▪ Illustrate the application of the module strategy in new vehicle projects and critically evaluate its pros and cons ▪ Know the entrepreneurial importance of suppliers' inputs for OEM's innovation management ▪ Implement various innovation management tools to real-world examples of automotive industry
Course contents	<ol style="list-style-type: none"> 1. Facts and figures world automotive industry 2. Original Equipment Manufacturer, Original Equipment Supplier and Car Dealer 3. Volkswagen Group 4. Product Engineering Process 5. Innovation management
Teaching methods	<ul style="list-style-type: none"> ▪ Lectures ▪ Exercises, Case Studies ▪ Hermeneutic approaches ▪ Discussion ▪ Self-study
Prerequisites	There are no formal requirements.
Suggested reading	<ul style="list-style-type: none"> ▪ Nieuwenhuis, P. / Wells, P.: Global Automotive Industry, John Wiley & Sons, 2015 ▪ Munson, C.: The Supply Chain Management Casebook, FT Press, 2013 ▪ Diehlmann, J. / Häcker, J.: Automotive Management, 2nd ed., Oldenbourg Verlag, 2013 ▪ Myerson, P. A.: Lean and Technology: Working Hand in Hand to Enable and Energize Your Global Supply Chain, Pearson Education, 2017 ▪ Further references will be given during the classes.
Applicability	<p>This course is in particular applicable to the following Master programmes: International Business and Economics (M.A.; "IBE").</p> <p>This course is also applicable to other business-oriented Master programmes offered by Schmalkalden University of Applied Sciences.</p>

Workload	Total workload: 180 hours, of them: <ul style="list-style-type: none"> ▪ Lecture: 45 ▪ Self-study: 135, of them: <ul style="list-style-type: none"> ▪ Course preparation (in particular reading): 40 ▪ Follow-up: 20 ▪ Readings and exam preparation: 54
ECTS credit points and weighting factor	6 ECTS credit points; weighting factor: 6/120 (IBE) or 6/90 (Finance), respectively
Basis of student evaluation	Comprehensive written examination, 90 minutes (100%)
Time	First academic year
Frequency	Each academic year
Duration	One semester
Course type	Elective course
Remarks	Teaching language is English.