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| Title of course | **M4.D Automotive Technology Management** |
| Responsible instructor | Prof Dr Michael Dornieden |
| Learning objectives | * 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 | 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 | * Lectures * Exercises, Case Studies * Hermeneutic approaches * Discussion * Self-study |
| Prerequisites | There are no formal requirements. |
| Suggested reading | * 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 | This course is in particular applicable to the following Master programmes: International Business and Economics (M.A.; “IBE”).  This course is also applicable to other business-oriented Master programmes offered by Schmalkalden University of Applied Sciences. |
| Workload | Total workload: 180 hours, of them:   * Lecture: 45 * Self-study: 135, of them: * 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. |