

**Annex 2 to the Study and Examination Regulations for the advanced course of education leading to the Master's degree: Electromobility and Vehicle Electrification at the Technical University of Ingolstadt dated 16/10/2017:**

Required contents for verifying the qualification, specifying the aims of the qualification:

With regard to § 3 paragraph 1 SPO:

**Relevant qualified experience in technical development**

Activities as a professional and executive manager in a company working in the field of technical development, such as

- Taking over assignments independently in the technical development of the automotive or aerospace industry in different specialist fields such as construction, vehicle development, vehicle testing, performance measurement or quality management
- Use of basic MATLAB toolboxes, such as control engineering, optimisation, state machines (stateflow)
- Basic concepts and principles used in procedural programming (algorithms and data, type concept, operators, terms, control instructions)
- Participation in interdisciplinary and complex projects
- Operational problem solving, i.e. selection of appropriate analyses, structuring, modelling, simulation, and optimisation methods and their safe application

With regard to § 3 paragraph 2 SPO:

Practical semester (internship)

Initial acquaintance with the activities of an engineer in a company working in the technical field

- Independent collaboration on projects and problem solving, in which issues were addressed that related closely to the course of study completed, e.g. mechanical engineering or automotive engineering and/or represent a valuable contribution
- Analyse technical processes within a company with an industrial focus and use engineering science methods based on specific assignments
- Application and deepening of knowledge, methods, and procedures that were taught and mediated in theoretical studies
- The candidate should be able to process these assignments and/or part-assignments according to a timetable and working plan on the basis of technical instructions given and/or within a team, independently under professional guidance
- The candidate should not just use technical expertise, but also apply interdisciplinary competence (for example, methods, social and personal skills).