

Budapest University of Technology and Economics

Faculty of Transportation Engineering and Vehicle Enginee

| 1. Subject name | Production process quality assurance in the vehicle industry | | | | | |
|------------------------------|--|--------------------------|---|------------------|----|--|
| 2. Subject name in Hungarian | Járműipari gyártási folyamatok minőségbiztosítása | | | | | |
| 3. Code | BMEKOGGM611 | 4. Evaluation type | mid-term grade | 5. Credits | 2 | |
| 6. Weekly contact hours | 2 (7) Lecture | 0 (0) Practice | 0 (0) Lab | | | |
| 7. Curriculum | Vehicle Engineering MSc (J) | 8. Role | Mandatory (mc) at Vehicle Engineering MSc (J) | | | |
| 9. Working hours | for fulfilling the req | uirements of the si | ubject | | 60 | |
| Contact hours | 28 | Preparation for seminars | 4 | Homework | 0 | |
| Reading written materials | 22 | Midterm preparation | 6 | Exam preparation | 0 | |
| 10. Department | Department of Automotive Technologies | | | | | |
| 11. Responsible lecturer | Dr. Markovits Tamás | | | | | |
| 12. Lecturers | Ászity Sándor | | | | | |
| 13. Prerequisites | | | | | | |
| 14. Description of | lectures | | | | | |

Automotive Production Systems and Quality Assurance System - transition from mass production to customer demand production. Custom manufacture, mass production, customer order production

Quality standards - ISO 9001, TS16949 and other automotive quality assurance standards

Quality Production System Principles - Manufacturing Basics Determined, Business Premises Management Quality Notes Quality Cost - Quality Role in Marketing and Corporate Strategy. The magic triangle is quality, cost, and regulation. Value approach and main losses

Continuous Quality - PDCA Cycle: Data Collection, Analysis, Measurement and Standardization, Problem Solving at the Reason, A3 Circuit, Control Plan

Example - Automatic translation of the original Poka Yoke

Employee involvement - team work and characteristics of interest

Statistical Methods - SPC, Six Sigma, FMEA

Quality Flow Crawl (QVSM)

Quality and Logo - Just in Time and Just in Sequence

15. Description of practices

16. Description of labortory practices

17. Learning outcomes

A. Knowledge

- Know the qualty processes in the automotive industry
- B. Skills
 - Able to use the quality tools
- C. Attitudes
 - Openness to the new possibilities of the field
- D. Autonomy and Responsibility
 - Participate in individual problem solving

18. Requirements, way to determine a grade (obtain a signature)

During the semester 1 midterm test has to be completed with more the 50 % of the maximal points.

The conditions for obtaining the credits are the completing the midterm test. The mark of the subject will be the result of midterm test.

| 19. Opportunity for repeat/retake and delayed completion | | | | | | | |
|--|-----------------|-------------------------------------|------------------|--|--|--|--|
| The midterm test can be retaken once. | | | | | | | |
| 20. Learning materials | | | | | | | |
| Slides and presentation notes | | | | | | | |
| Effective date | 10 October 2019 | This Subject Datasheet is valid for | Inactive courses | | | | |