

Department	SciTec
Degree programme	SI
Module name	Quality Management
Module number	SciTec.2.245
Study and Examination Regulations	ER-version 41 (of 16.07.2021)
Compulsory/ required elective/ optional module	required elective module
Module coordinator	Prof. Dr. Ronny Gerbach
Module content	Knowing tools of quality management is the basis for a successful business activity on the market. The combinations of the individual tools help to achieve an optimal result for the company and to enable a targeted search for weak points. Error prevention and optimization are important processes for running a business
Learning objectives	Passing this module, the students are able to apply of quality management systems, quality function development (QFD), optimization (DOE) through genetic algorithms, development strategy, partial factorial design plans (Taguchi), benchmarking, quality costs, fault tree analysis, process capability, Pareto technique.
Course type (lecture, seminar, exercises, practical course)	3 L – 0 S – 0 E – 0 P
Recommended literature	<ul style="list-style-type: none"> ▪ Krakowitz, Missethon, Augustin: Lean Quality Management. Dortmund: Verlag für Logistik in Praxis und Wissenschaft, 1993 ▪ Imai: Kaizen – der Schlüssel zum Erfolg der Japaner im Wettbewerb. Frankfurt am Main: Ullstein, 1994 ▪ Linß: Qualitätsmanagement für Ingenieure. Leipzig: Fachbuchverlag, 2001 ▪ George: Lean Six Sigma for service. New York: McGraw-Hill, 2003 ▪ Brunner: Japanische Erfolgskonzepte: KAIZEN, KVP, Lean Production Management, Total Productive Maintenance, Shopfloor Management, Toyota Production System, GD - Lean Development. München: Hanser, 2011
Learning materials	Script, worksheets, application information
Method(s) of instruction/ media being used	Lecture in connection with internship, handling and training of management techniques, presentation technique
Level/ category	Master (category: 2)
Which semester (winter/ summer term)	winter term
Which semester during the programme	3
Requirements for attendance, necessary knowledge	Mathematical knowledge in the field of statistics and probability calculus, safe handling of ready-to-use software
Assessment (written/ oral test, paper, etc.)	written examination (90 minutes)
ECTS credits	3
Work load in:	90 h of total work load, therefrom <ul style="list-style-type: none"> ▪ 45 h of presence at university ▪ 45 h of self-study
Usability of this module	Professional Practice
Frequency of offer	Every study year
Duration of module	1 semester
Place/ room	Ernst-Abbe-Hochschule Jena - University of Applied Sciences Jena
Time	According to schedule
Language(s)	English