TeachING LearnING innovations
April 2011 - March 2012

Math Matters
Development of lecture notes accompanying the lectures containing lots of worked exercises and practical examples, an extended web version that allows for independent measurement of learning results, and a guidebook with learning strategies for students.

Cooperation:
Mechanical Engineering, Mathematics

Management & Work Organisation
Seminars on getting to know concepts of work management that are helpful in professional life and when visiting companies – getting to know work organisation.

Cooperation:
Mechanical Engineering, Social Science, Cooperation organisation: IG Metall

Exercise

Engineering Meets Biology
Dealing with potential areas of work in multi-subject projects work in student teams on the basis of lecture contents, production of a poster with final presentation – getting to know fields of work.

Cooperation:
Biological and Chemical Engineering

MCGaming
Development of a simulation for a lecture on corporate cybernetics in which groups of students compete against each other – developing practical skills.

Cooperation:
Mechanical Engineering

Hands-On! Training Units for Industrial Engineers
Going into more detail on what we have learned from the lecture in the method lab by developing a modular learning concept that illustrates as many of the typical tasks of an industrial engineer as possible and is tested by students – developing practical skills.

Cooperation:
Mechanical Engineering

Leadership Skills
Development of an interactive/multimedia case study with episodes from everyday research with fictional mentor and role plays – developing personality and management competence.

Cooperation:
Mechanical Engineering and Psychology

Stryps - Strategic Planning of Dynamic Production Systems
Checking and applying lecture contents of the main event on factory organisation by means of development and application of an IT-based simulation – developing problem-solving techniques and team competence.

Cooperation:
Mechanical Engineering

Promotion

Start up Teaching
Drafting and organisation of faculty-specific higher education courses for new teaching staff – developing professional teaching competence.

Cooperation:
Mechanical Engineering

InproCUfo - Industrial Project „Cutting Forces in Turning Processes“
Simulation of an industrial project in the lab which involves the students working in teams to solve problems based on practical exercises – developing practical skills.

Cooperation:
Mechanical Engineering

ProLab@Ing
Redesign of the main event on “Conversion technology II” to turn it into a project lab: Students work on development project from the skills-based planning to the testing to the checking and presentation of the results – developing problem-solving and team competence.

Cooperation:
Mechanical Engineering

Lab

Inprocufo - Industrial Project “Cutting Forces in Turning Processes”
Simulation of an industrial project in the lab which involves the students working in teams to solve problems based on practical exercises – developing practical skills.

Cooperation:
Mechanical Engineering

Lab

Bachelor

Master

Promotion