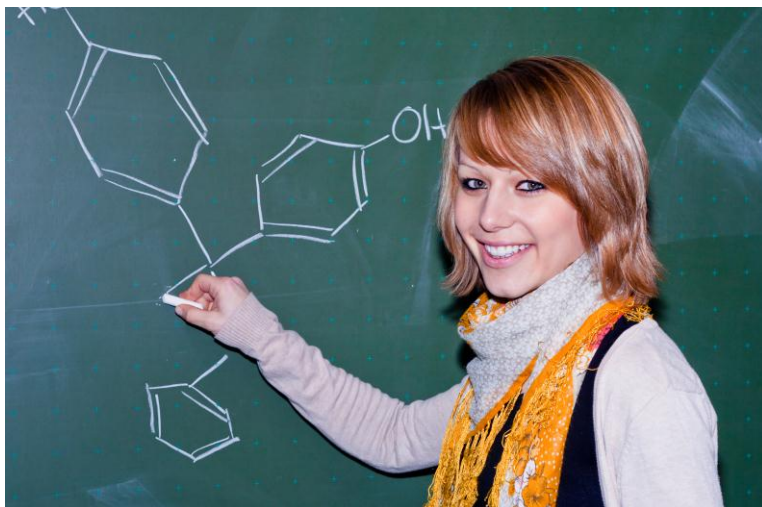


## Successful Studies of Mathematics, Informatics, Natural Sciences, and Engineering

Joint Course of Lectures of KIT and Stuttgart University to Be Funded under the “Pact for Teaching Quality” by the Federal Ministry of Education and Research



*Optimistic start: The MINT course of lectures facilitates the start of studies of natural sciences and engineering. (Photo: Harry Marx)*

**Experts in mathematics, informatics, natural sciences, and engineering will be needed in the long term in Germany as a location of high technology. Still, only few secondary school graduates decide in favor of these studies. They are considered to be difficult, quit rates are high. A comprehensive starter training will be offered by the MINT-Kolleg of Karlsruhe Institute of Technology (KIT) and Stuttgart University from the 2011/2012 winter semester. Funding will be provided by the Federal Ministry of Education and Research under the “Pact for Teaching Quality”.**

The demand for job starters in the fields of mathematics, informatics, natural sciences, and engineering is growing constantly and will even rise in the long term. However, the number of university graduates in these subjects is stagnating. This is evident from the study “Sustainable University Strategies for More Graduates in Mathematics, Informatics, Natural Sciences, and Engineering” that was carried out by the Stifterverband für die Deutsche Wissenschaft (Funding Association for German Science) and the Heinz Nixdorf

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Foundation. Among the causes are the difficult transition from school to studies of natural sciences and engineering, individual knowledge gaps of freshmen, and insufficient counseling and mentoring at schools and universities. KIT and Stuttgart University have now reacted by establishing the MINT-Kolleg Baden-Wuerttemberg: With preliminary courses, lessons, online learning programs, and lectures on working life, this course is interlinked with university studies and facilitates the start of studies and selection of the final study program after the first two or three semesters. This concept of the MINT-Kolleg is unique in Germany and intended to prepare students for the special learning and work requirements in natural sciences and engineering.

“With the MINT-Kolleg, we are building a bridge for the students to start their specialized studies. Here, they are provided with the necessary information for successful graduation,” says the Vice Rector for Academic Affairs and Continuing Education of Stuttgart University, Professor Frank Gießelmann. “By an individual competence diagnosis and expert support, if necessary, as well as by specific counselling, the freshmen are given optimum support in the MINT-Kolleg,” explains Professor Jürgen Becker, Chief Higher Education Officer of KIT. The Joint Science Conference selected the MINT-Kolleg for funding in the first round of the “Pact for Teaching Quality” launched by the Federal Government and the Federal States in May this year. With federal funds, the program supports concepts for improving study conditions and teaching quality. The MINT-Kolleg will presumably be financed with EUR 7.8 million for a duration of five years at both Karlsruhe and Stuttgart.

At the MINT-Kolleg Baden-Wuerttemberg, pupils interested in studies and freshmen will have the opportunity to test their knowledge level online and to be given advice. Lessons are given optionally during lecture time in modules of fourteen days each (seven modules of two weeks each per semester). The online learning programs are run throughout the year and contain the matters to be learnt as well as exercises, model solutions, and milestones for performance control. In addition to the studies, lectures will provide information on the subjects and jobs relating to mathematics, informatics, natural sciences, and engineering. Chances of women in particular will be highlighted. The program will be completed by an introduction to working techniques, the use of university facilities, such as libraries, computing centers, and laboratories, programming courses, engineering exercises, and seminars. Apart from this program of two semesters’ duration, the MINT-Kolleg Baden-Wuerttemberg will also offer preliminary courses in mathematics in September. Here, freshmen will have the opportunity to refresh and deepen their knowledge. In this way, participants will be prepared for the mathematic contents of technical, scientific, and economic study courses. In addition, practical training in physics and chemistry and a Java programming course will take place in September 2011.

The first students will start the MINT-Kolleg in the 2011/2012 winter semester. Participation will be possible on a voluntary basis by all

students who have registered for the corresponding study courses with Stuttgart University or KIT and in particular by students who feel uncertain about the study course selected. Participants in the MINT-Kolleg may already pass certain modules and practical exercises of their studies and, thus, relieve the burden that will be associated with later study phases.

The MINT-Kolleg will start officially with the beginning of the lectures on October 17. Interested students may also start after the Christmas holidays and at the beginning of the summer semester. All offers can be used flexibly and it will be possible to react quickly when detecting deficits in the first semester. The preliminary course in mathematics will take place at Stuttgart University from September 19 to October 12. Registration is possible already. The preliminary course in mathematics at KIT will start on September 5 and also take four weeks. Practical training in physics and chemistry will start on September 12 and take two weeks. The Java programming course will take place from September 12 to 30 (start of registration in mid-June).

**More information on the contents and application may be obtained on the online platform [www.mint-kolleg.de](http://www.mint-kolleg.de) that started in April and is being updated constantly.**

**Karlsruhe Institute of Technology (KIT) is a public corporation according to the legislation of the state of Baden-Württemberg. It fulfills the mission of a university and the mission of a national research center of the Helmholtz Association. KIT focuses on a knowledge triangle that links the tasks of research, teaching, and innovation.**

**Stuttgart University with about 21,000 students pursues an interdisciplinary profile with focuses on natural sciences and engineering. Its excellent position as a research university that is active worldwide is reflected among others by the cluster of excellence “Simulation Technology,” the graduate school “Advanced Manufacturing Engineering”, and a number of collaborative research centers and research units.**

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