Allgemeine Ingenieurwissenschaften

WHAT ARE ALLGEMEINE INGENIEURWISSENSCHAFTEN?

Would you like to be a Formula 1 driver taking the bends with squealing tires in your self-build racing car? The e-gnition team at the Hamburg University of Technology offers you this opportunity. Or would you sooner commit to a student working group that builds dams and wells in Africa to provide people there with access to drinking water? So, you see, no study program extends as far or as wide as that of the General Engineer. At the TU Hamburg the program teaches the full range of engineering sciences and promotes working across disciplines.

HOW CAN I SHAPE THE FUTURE WITH ALLGEMEINE INGENIEURWISSENSCHAFTEN?

Engineers improve people’s lives every day all over the world by solving supply problems, organizing the transportation of goods, creating opportunities for electronic communication or developing new forms of mobility. Autonomous driving, for example. An interdisciplinary approach is called for. Mechanical and electrical engineering collaborate to design the vehicle and the sensor and actuator technology. For the car to function in traffic, results of control engineering and programing that works are also required. As a General Engineer you learn in the core area at the TU Hamburg all the theoretical and practical basics that are required.

WHAT DO I LEARN ON THE COURSE AND WHERE DO I LATER FIND A JOB?

Due to a strong focus on a methodical and analytical approach and on basic knowledge the program covers a very wide range in depth that extends beyond individual specializations. This enables TU Hamburg graduates to quickly familiarize themselves with other engineering disciplines and assume responsibility for interdisciplinary projects. In our constantly evolving world General Engineers are very much in demand and earn attractive salaries in many industries.

HOW IS THE PROGRAM STRUCTURED?

The core subjects math, natural sciences, computer science, mechanics, electrical engineering, thermodynamics, control engineering and design theory cover the basics of engineering science and account for nearly half of the study program. You don’t specialize in a specific engineering discipline until the third semester. Unlike other B.Sc. courses at the TU Hamburg, studying Allgemeine Ingenieurwissenschaften takes 7 semesters. For one, the extra semester is due to the breadth of learning the theoretical foundations. For another, students of Allgemeine Ingenieurwissenschaften spend more time on practical work. Before working on your bachelor thesis you will serve a 12-week internship in industry.

Julius Aka

I am a fourth-semester AIW student specializing in Energy and Environmental Engineering. Why do I find AIW so good? Initially it deals intensively with the world’s physical and technical foundations. That may be laborious, but understanding them gives me pleasure and makes quite a lot easier as my studies progress. In contacts with fellow-students I also enjoy getting to know a wide range of engineering science action areas.
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FURTHER STUDIES?

After successfully concluding your B.Sc. course you might consider a master’s course at the TU Hamburg that builds on your specialization. Despite the 7-semester bachelor’s program all 4 semesters of the master’s course at the TU Hamburg qualify for a BAFöG student grant:

→ Mechatronics
→ Medical Engineering
→ Theoretical Mechanical Engineering
→ Mechanical Engineering and Management
→ Electrical Engineering