Das Ausbildungsprofil in englischer Fassung

	**Training profiles** The training profiles offer a brief overview of the fields of activity and key professional qualifications. The training profiles are written in German, English and French. They make a practical contribution to promoting transparency for professional qualifications and the international mobility of young professionals. The training profiles provide succinct information for employers in other countries regarding the qualifications of German job applicants. As a supplement to their certificate of qualification, a training profile is designed to support the application of those who are interested in starting a training course in other countries. It is presented to students on completion of their training by the authority responsible.	

Designation of occupation

Mathematical-technical software developer (m/f)

Duration of training
Three years
The venues for training are the company and part-time vocational school (Berufsschule).

Field of activity
Mathematical-technical software developers work in companies of different sizes and in different fields, such as commercial operations, research institutes, research centres and higher education establishments. Their main task is to design, realise and maintain software systems based on mathematical models.

Professional qualifications
Mathematical-technical software developers (m/f)

- Apply mathematical models to solve problems in the areas of computing, technology, natural sciences and industry
- Analyse problems and develop and describe formal models in the field of software development
- Design and realise object-oriented, complex software systems
- Create user and system documentation
- Document the software development process
- Use standard mathematical procedures and solution algorithms and apply these in programs
- Work in cooperation with academic specialists with regard to the mathematical interpretation and presentation of results
- Plan quality assurance measures and implement these
- Use standard test principles and procedure, and use test tools in a suitable manner
- Communicate mathematical problems across different specialist fields, and work in inter-disciplinary teams
- Use project management methods
- Advise and train users