

## **Mathematical-technical software developers**

### **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.

### **Occupational skills**

Mathematical-technical software developers...

- Apply mathematical models to solve problems in the areas of computing, technology, natural sciences and industry
- Analyse problems and develop and describe formalised models in the field of software development
- Design and realise complex software systems in an object-oriented manner
- Create user and system documentation
- Document the software development process
- Use standard mathematical procedures and solution algorithms and apply these in programs
- Cooperate with academic specialists in the mathematical interpretation and presentation of results
- Plan quality assurance measures and implement these
- Use standard test principles and procedures, 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

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