

# Key Competencies

The University of Technology Nuremberg, short UTN, aims to improve the employability of students. This is also supported by the European study reform, the so-called Bologna Process.

UTN, therefore, will integrate key competencies in all study programs. It gives students and doctoral researchers the chance to be better in their future jobs; it increases our student international employability outcomes. Key competencies not only enhance student success in degree programs, but also pave the way for a successful start to a career and lifelong learning.

In addition, embedding key competencies in all study programs enables students to gain an official university degree qualification with key competencies on it for employers to see, and the opportunity to grow their personal resources and potential, as well as to develop an individual career profile.

## Key Competencies UTN:

Key competencies enhance students' personal growth, employability, and social commitment (including democratic citizenship).

Based on the defined Learning Outcomes, goals and objectives of the study programs, the UTN defines 6 Key Competencies categories:

### Communication & Collaboration

**Key Focus:** Students are able to interact effectively with others, appropriately coordinate, cooperate or collaborate, and communicate with others.

**Practical Application:** Students must be able to communicate clearly, coordinate tasks, and work collaboratively within teams or with external groups, such as clients, colleagues, or community members. This also includes listening actively and resolving conflicts through dialogue.

### Critical Thinking & Problem Solving

**Key Focus:** Students have the capacity to think analytical and solve complex problems. They are able to demonstrate effective problem solving and critical thinking skills in resolving job-related issues.

**Practical Application:** Students should be able to assess situations critically, gather relevant data, and propose creative and effective solutions to problems, particularly in job-related scenarios. This

includes identifying potential challenges, evaluating different perspectives, and making informed decisions.

## **Personal Growth & Well-Being**

**Key Focus:** Students are able to adopt a Lifelong learning attitude, time management, and resilience including self-improvement.

**Practical Application:** Students are expected to continuously work on their personal development by embracing lifelong learning and improving their skills. This involves setting goals, managing time effectively, and building resilience to overcome challenges. This involves seeking new knowledge, skills, and experiences to adapt to changes in their field and society by balancing personal well-being with professional growth, students can maintain a healthy mindset, adapt to changes, and navigate setbacks with perseverance and flexibility. Lifelong learning is emphasized, ensuring students remain curious, adaptable, and engaged throughout their lives.

## **Creativity & Innovation**

**Key Focus:** Students leverage creativity to solve problems and innovate. Students are able to adapt their expertise to real-world challenges and pursue creativity and lifelong learning.

**Practical Application:** Graduates should be able to apply their knowledge to real-world challenges by thinking outside the box, adapting to new situations, and embracing continuous learning. This could involve creating new technologies, business models, or approaches that are both practical and novel.

## **Cultural & Global Citizenship**

**Key Focus:** Students have awareness of and respect for diversity and global issues. Students are able to embrace the values of a democratic society and a sustainable environment, and act accordingly.

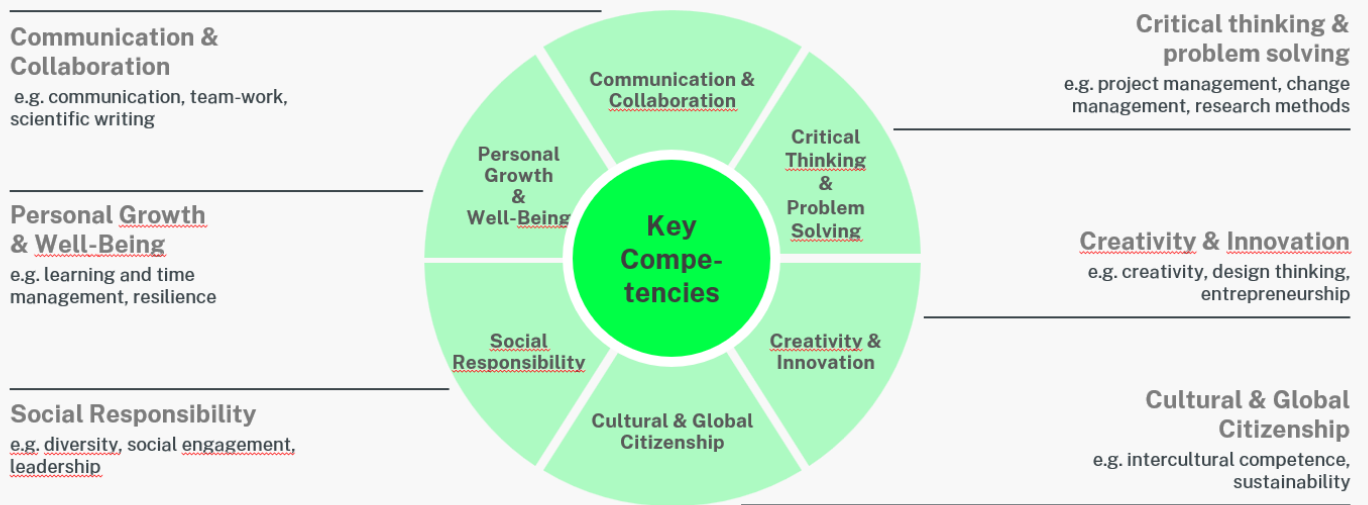
**Practical Application:** Students are encouraged to act responsibly within a global context by recognizing the importance of democracy, human rights, and environmental sustainability. This can include participating in or leading initiatives that promote cross-cultural understanding, ethical behavior, and ecological conservation.

## **Social Responsibility**

**Key Focus:** Students are able to reflect on technology leadership and apply knowledge of ethics, and relate them to current and future sociotechnical contexts.

**Practical Application:** Students must develop a sense of responsibility for the impact of technology and business decisions on society. They should be prepared to lead ethically and promote well-being, not only in their personal lives but also in their professional communities. This involves reflecting on the ethical use of technology and understanding its societal impacts.

## Key Competencies Organization Model



In essence, these competencies focus on producing students and graduates who are not only skilled in their respective fields but are also able to navigate diverse, global, and ethical challenges, while fostering personal and professional growth. Each category underlines the importance of a well-rounded education that integrates both hard and soft skills, preparing students for success in a complex, interconnected world.

## **Implementation**

Key Competencies are implemented at the UTN in two ways, both

- additive, through specialized Key Competencies courses, and
- integrative, within subject-specific courses.

### **Additive Key Competencies:**

As part of all UTN degree programs, 12 or 18 ECTS must be acquired through Key Competencies. The topics of Communication, Good Scientific Practice and Agile Project Management are firmly anchored in the Basic Module (1<sup>st</sup> semester) and serve as preparation for all studies and the Learning in Transformation Project.

In Key Competencies Modules 1 and 2, students can choose courses individually according to their interests.

Language courses:

A maximum of 6 ECTS earned in language courses can be credited to Key Competencies Module 1 or Module 2.

Enrolment in language courses is based on placement test performance to ensure students are enrolled in the appropriate course level for their language skills

### **Integrative Key Competencies:**

Key Competencies are also embedded in UTN subject courses in core courses of the students' degree program.

Examples could be:

- Communication in interdisciplinary courses
- Teamwork skills through participation in a working group
- Project management through planning and implementation of a scientific projects
- Effective communication of research findings (e.g., scientific presentations)

Suggestions for additional topics for the Key Competencies courses, can be proposed any time to the Early Career Center ([stars-career@utn.de](mailto:stars-career@utn.de)). In addition, topics are also discussed each semester in a meeting with the study programs (semester kick-off).