Welcome to the TUM School of Education

The TUM School of Education is the first academic department for teacher training and educational research in Germany. Its establishment underscores the commitment of the Technische Universität München (TUM) to teacher training and educational research, which it considers as one of its core functions.

The program provides educationalists, psychologists and student teachers with access to in-depth academic training in research on teaching and learning. The master's program aims to qualify for a career in research or taking leadership positions in educational institutions. Thanks to close links with the Faculty Graduate Center, the master's program also facilitates graduates who subsequently wish to study for a doctorate.

The program is taught by renowned professors in the fields of educational research, teaching research, method research, teacher education, secondary education and the teaching methodology of mathematics.

The master's program at a glance

Degree: Master of Education
Standard duration of study: 4 semesters (120 Credits)
Study format: Full time
Language of instruction: English
Admission requirements: Bachelor of Education or comparable degree, selection procedure
Start date: Winter semester

Contact details

TUM School of Education
Technische Universität München
eignungsverfahren@edu.tum.de
www.edu.tum.de

TUM School of Education
Master of Education

Research on Teaching and Learning

Interdisciplinary training in educational science, teaching methodology and psychology

TUM

Career prospects

Empirical educational research is a growing field. This is shown by the establishment of professorships that focus on empirical research in educational science and teaching methodology. In this field, particular attention is paid to the study of teaching and learning processes in a wide variety of educational contexts. In addition, a large number of foundations, ministries and research organizations in Germany are very active in issues relevant to teaching and learning both in and out of school, and are resolutely calling for evidence-based support for initiatives. Organizational developments in universities and research institutions also increases demand for staff who are qualified in the area of education.

Target group

The program is aimed at first-year students who have a bachelor's degree in secondary school teaching, vocational training (alternatively also the first Staatsexamen), education, educational science or psychology. The program is aimed at international students as well as national students

Content

Professional competencies
Students explore key theories, concepts, methods and findings of empirical educational research and focus on teaching and learning in a variety of educational contexts. This enables them to gain a coherent knowledge and in-depth understanding of
• institutions in education systems and quality development and assurance in these institutions,
• teaching and learning processes and their determinants in formal learning settings such as the classroom, and
• educational concepts and their measurement.

Students also acquire a basic knowledge of methodologies in behavioral and social sciences, which are based on research designs, data collection and data analysis.

Methodological competencies
Students acquire methodological competency in relation to the skills and abilities that are relevant to the area of empirical educational research. These include knowledge and skills in key working practices such as researching and preparing literature, summarizing relevant empirical studies in written essays, presenting research and project activities using various presentation techniques (PowerPoint, posters, etc.), communicating empirical research to different target groups, acquiring the essential writing skills necessary to produce academic texts and gaining a basic knowledge of project and time management.

Social competencies
Thirdly, students acquire social competency by working together in teams on projects, analyzing the various strengths and weaknesses of project participants and using this to implement the project. The master's program is characterized by its highly interdisciplinary nature, which means that students regularly work on projects in different team compositions. Students are also required to decide on certain projects and implement them within a fixed timeframe by agreeing a shared work and time schedule. By cooperating in this way they learn how to articulate project interests and decisions and to make coherent academic arguments.

Program structure

Semester 1	Semester 2	Semester 3	Semester 4
Module 1 (required) *Introduction to methods in teaching and learning science* 5 CP	**Module 6** (required) *Educational processes and outcomes (I)* 10 CP	**Module 9** (required) *Educational processes and outcomes (II)* 10 CP	
Module 2 (required elective) *Reading and administration of literature* 5 CP		**Module 10** (required elective) *Analysis of variance* 5 CP	
Module 3 (required elective) *Writing and presentation skills* 5 CP		**Module 11** (required elective) *Video analysis* 5 CP	
Module 4 (required) *Institutions in the international context of educational systems* 10 CP	**Module 7** (required) *Educational institutions and quality development* 10 CP	**Module 12** (required elective) *Analysis of interview data, learning journals and portfolios* 5 CP	Master's Thesis
		Module 13 (required) *Research on Teaching and Learning: specialization* 5 CP	
Module 5 (required) *Models of teaching and learning* 10 CP	**Module 8** (required) *Teaching and learning processes in classrooms and instructional design* 10 CP	**Module 14** (pass / fail credit requirement) *Research internship* 5 CP	
		Module 15 (pass / fail credit requirement) *Internship in educational institutions* 5 CP	
30 CP	**30 CP**	**30 CP**	**30 CP**