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# Internationalization of Higher Education: Technical University of Moldova Case Study

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# Technical University of Moldova (TUM):

**TUM is Higher education institution accredited by the state, founded in 1964.**

TUM organizes its activity according to the requirements of the Bologna Process, based on the three-cycles system: I – Bachelor level, II – Master level, III – Doctoral level  
Studies and Research:

## **Mission of the University:**

The fundamental mission of the Technical University of Moldova is to provide quality education by combining education, research and innovation, aiming at building a society and sustainable economy based on knowledge and forming the student personality of a creative and critical type.



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# Technical University of Moldova (TUM):

## **The six research centers implement the research strategy of the university.**

Students are involved in research projects at departmental level. Studies and scientific research carried out at TUM have an interdisciplinary character and surpass the traditional engineering fields, combining the technical sciences with the fundamental and economic sciences

## **Acquired knowledge:**

Contributes to the employment of the graduates in the labour market in correspondence with their specialty and study field

Provides modern knowledge and conditions for continuing development in a certain field

Encourages the awareness of the relationship between science, technology and society



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# Technical University of Moldova (TUM):

## The University is structured in 9 faculties:

- Energetics and Electrical Engineering
- Mechanical, Industrial Engineering and Transport
- Engineering and Management in Electronics and Telecommunications
- Computers, Informatics and Microelectronics
- Food Technology
- Textile Industry
- Architecture and Urban Planning
- Cadastre, Geodesy and Constructions
- Economic Engineering and Business

# Technical University of Moldova (TUM):

## Francophone and Anglophone Departments:

### Faculty of Computer Science, Informatics and Microelectronics:

- English Department of “Computer Science and Electronics“
- French Department of "Informatics"

### Faculty of Food Technology:

- French Department of “Food technologies“



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# Technical University of Moldova (TUM):

- **International cooperation in the field of education and research** is one of the main components of the Development Strategy of the University
- **TUM has collaboration agreements with about 75 universities** in Belgium, Belarus, Bulgaria, Canada, Czech Republic, Germany, France, Romania, Latvia, Russia, Turkey, Ukraine, etc.
- **Mobility of students and teachers** constitutes one of the basic priorities of University life (Erasmus Mundus, CEEPUS, Erasmus+ projects).

### Since 1994 TUM has participated:

- in educational and academic mobility projects financed through EU programmes, such as Tempus, Erasmus Mundus, CEEPUS, Erasmus +, in research projects under INTAS, FP6 and FP7, SCOPES, Horizon 2020 programmes;
- in projects of short-term mobilities within the Programme of cooperation and assistance between the Ministry Education of the Republic Moldova and the Ministry of National Education of Romania since 21/02/2014.

## International Cooperation, 2016-2017

- Bilateral agreement with institutions abroad: 22
- Erasmus+Inter-institutional Agreements: 24
- Erasmus+ outgoing mobilities: 30
- CEEPUS Programme outgoing/incoming: 23/47
- Other mobility programmes  
(Romania, Italy, Norway, Spain): 25



### Academic mobility projects at TUM:

#### Erasmus Mundus:

- EWENT - East-West European Network on higher Technical education
- ACTIVE – Atlantic Caucasus Technical universities Initiative for Valuable Education
- EuroEast
- Infinity

#### CEEPUS III - Central European Exchange Programme for University Studies

- 8 projects with universities from Romania, Bulgaria, Czech Republic, Poland, Hungary, Serbia, Slovenia. Mobility for academic staff, , bachelor, master and doctoral students

#### Erasmus+ Key Action 1

University of Patras, Politehnica University of Timisoara, Universitatea "Stefan cel Mare" din Suceava, Technical University Iasi, Alexandru Ioan Cuza University of Iași, Universitat Politecnica De Valencia, University of DEUSTO, Universitate da Coruna, University of Siegen, Agrocampus Ouest, Ecole Nationale D'Ingenieurs de Saint Etienne, TransilvaniaUniversity of Braşov, Technische Universitaet Ilmenau, Universitaet Siegen, etc.

### Some examples of Tempus projects at TUM:

- Scénarios d'adaptation du processus de Bologne à l'Enseignement Supérieur Moldave
- Implantation système institutionnel gestion assurance interne qualité formation dans l'ES-MD
- Formation en doctorat de recherche; école doctorale
- Enhancing University Autonomy in Moldova
- Service d' Orientation & Placement des Etudiants
- Développement de partenariats avec les entreprises en Moldavie
- RETHINK - Reform of education through international knowledge exchange
- Biomedical engineering education tempus initiative in eastern neighboring area
- MSc Programme in Environment and Clean Technologies
- Création réseau universités thématiques en sciences appliquées et sciences économiques en Moldavie, etc.

## Erasmus+ Capacity Building projects at TUM:

- Introducing Problem Based Learning in Moldova: Toward Enhancing Students' Competitiveness and Employability (selection 2015)
- Creating Moldovan E-network for promoting innovative e-teaching in the continuing professional education (selection 2015)
- Licence, Master professionnels pour le développement, l'administration, la gestion, la protection des systèmes et réseaux informatiques dans les entreprises (selection 2016)
- Elevating the internationalization of higher education in Moldova (selection 2016)

- FP-7-INCO-2010-6, Project 266515 "Preparation for Moldova's integration into the European Research Area and into the Community R&D Framework Program on the basis of scientific excellence – MOLD-ERA"
- FP7 TransNEW nr. 234330 "Support for realising new Member and Associate States potentials in transport research"
- SCOPES IZ73Z0\_128047 "Materiale nanostructurate pentru lasere cu cascade cuantice în diapazonul terahertz și emițătoare terahertz cu corp solid dirijate prin excitare laser"
- GRANT BSEC-HDF / RES 2011-02 "Technological systems based on the utilization of water kinetikal energy for rural consumers (TESUWKERC)". 2011-2013
- FP-7 EEGS-2 nr.287179
- Extension of EGNOS in Eastern Europe: APPLICATIONS
- FP-7 POPLE-2012-IRSES NUTRILAB nr. 318946 "Nutritional Labeling Study in Black Sea Region Countries"
- FP-7-PEOPLE-2012-IRSES DynSysAppl nr.316338 „Valorificarea resurselor umane, naturale și informaționale pentru dezvoltarea durabilă a economiei țării”
- Grant SCOPES: IZ73Z0 152273/1 „Development and characterization of ultra-thin membranes of GaN and related nitride materials for sensor and piezo/acoustophotonic applications”
- Grant PNUD: 00055003 „Autonomous integrated irrigation systems based on wind turbines, small hydro and photovoltaic installations”

### AUF (Agence Universitaire de la Francophonie) projects at TUM:

- La modernisation d'équipement et de la technologie d'impression sérigraphique par l'intégration des techniques de conception, simulation et fabrication dans le contexte européen – SERITEH”;
- Matériaux poreux recyclables pour la dépollution – application aux effluents de l'industrie alimentaire;
- Consolidation de la capacité de recherche du Laboratoire de l'Aerodynamique dans le cadre du Département „Bases de Projection des Machines;
- Système multisources de petite puissance pour l'alimentation d'un site isolé.

## **Administration and staff make constant efforts:**

- to identify new opportunities for cooperation in education and scientific research (Joint or Double Diploma, PhD thesis in cotutelle, joint research projects);
- to establish relationships with universities at regional level (Romania, Czech Republic, Turkey, Ukraine, etc.);
- to increase its international visibility by organizing conferences, workshops, jointly with universities from other countries
- to facilitate student and staff exchanges with universities abroad  
English language courses are offered by the university  
Department of Modern Languages