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THE TECHNICAL UNIVERSITY OF MOLDOVA

HISTORY

- 1964 - Foundation year of the **Polytechnic Institute “S. Lazo” of Chisinau**
- At the beginning the **Institute comprised 5 faculties**: Electrical Engineering, Mechanical Engineering, Food Technology, Civil Engineering and Economics
- 1993 Polytechnic Institute becomes **Technical University of Moldova**
- Today, TUM has a contingent of about 9,500 thousand students
- 62 educational programmes are offered within 9 faculties

ADMINISTRATIVE BUILDING



- The building of the former Financial Administration
- Architectural and historical monument of national value
- Built between 1895 - 1903
- Was damaged during the Second World War
- Was rebuilt between 1946 - 1948, under the guidance of the architect Etti Roza Spirer
- Since 1964, it is the administrative building of the Technical University, housing the Faculty of Radio-electronics and Telecommunications

FOUCAULT PENDULUM




GRAVITATIONAL HOROLOGES WITH INTERACTIVE KINEMATICS

- It is the first project in Republic of Moldova (nr. 516938/P15, approved in 2005), financially supported by the European Physical Society and realized at TUM.
- All works were realized exclusively by TUM students and PhD candidates, staff and graduates, including project concept and projecting, elaboration of fabrication technologies for some components and intermediary tests, the engineering calculus and computer simulation, as well as horologe fabrication.




UNIVERSITY MISSION

Technical University of Moldova:




**Higher education
institution accredited by
the state**



**Unfolds its activity according to the requirements
of the Bologna Process, based on the three-cycles
system: I – Bachelor level, II – Masters level, III –
Doctoral level**

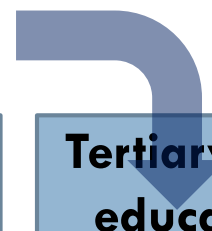
TUM mission:



**Advanced research and
education, generating and
transferring knowledge to
society, by:**



**Research,
development,
innovation and
technology transfer**



**Tertiary and continuing
education, aiming at
professional insertion
and satisfaction of
society demand for
competences**

Education

Organization of Studies (full-time and part-time):

- Cycle I, **Bachelor degree**, programmes in engineering - 4 years (ECTS – 240 credit points), programmes in economics - 3 years (ECTS -180 credit points)
- Cycle II, **Master degree** programmes – 1,5 and 2 years (ECTS - 90 and 120 credit points)
- **Programme in Architecture** - 6 years (ECTS – 360 credit points), integrated studies Bachelor and Master
- Cycle III, **Doctoral degree** programmes - 3 years

Outcomes of the TUM adjustment to the requirements of the Bologna Process

- **Organisation of the study process in three cycles:**
 - cycle I – Bachelor programmes (since 2005)
 - cycle II – Master's programmes (since 2008)
 - cycle III – Doctoral programmes through Doctoral Schools (since 2008)
- **Implementation of the European Credit Transfer System – ECTS**
- **Orientation of the study process towards the demands of the labour market**
- **Implementation of the Quality Management System**
- **Diploma Supplements corresponding to the European model**
- **Inter-university cooperation with the universities in the country and abroad**

Faculties

- **Electronics and Telecommunications**
- **Energetics and Electrical Engineering**
- **Computers, Informatics and Microelectronics**
- **Food Technology**
- **Mechanical Engineering and Transport**
- **Architecture and Urban Planning**
- **Constructions, Geodesy and Cadastre**
- **Economic Engineering and Business**
- **Textiles and Polygraphy**

□ **Mechanical Engineering and Transport. Programmes in:**

- Machine Building Technology
- Machines and Production Systems
- Mechanical Engineering
- Refrigerating Equipment and Air Conditioning Systems
- Industrial Design
- Engineering and Management in Machine Building
- Transport Engineering and Management
- Automotive Transport Engineering
- Railway Transport Engineering
- Transport and Expedition Services

■ **Energetics and Electrical Engineering. Programmes in:**

- Electroenergetics
- Engineering of Electromechanical Systems
- Thermoenergetics
- Engineering and Quality Management
- Engineering and Management in Energetics.

Electronics and Telecommunications. Programmes in:

- Telecommunication Systems And Technologies
- Telecommunication Networks and Software
- Applied Electronics
- Security of Electronic and Telecommunication Systems
- Engineering and Management in Telecommunications
- Teleradiocommunications

Computer Science, Informatics and Microelectronics. Programmes in:

- Applied Informatics
- Microelectronics and Nanotechnologies
- Biomedical Engineering
- Computers and Data Networks
- Information Technologies
- Automatics and Informatics
- Information Management
- Information Security
- Robotics and Mechatronics
- Software Engineering

Food Technology. Programmes in:

- Engineering and Management in Food Industry
- Technology of Food Products
- Technology and Management of Public Catering
- Technology of Wine and Fermentation Products
- Industrial Biotechnologies
- Tehnologies Alimentaries (French Filière)

Civil Engineering, Geodesy and Cadastre. Programmes in:

- Civil and Industrial Engineering
- Engineering Geodesy and Cadastre
- Real Estate Valuation and Development
- Law (Patrimonial Law)
- Fire Prevention and Civil Protection Engineering
- Wood Processing Technology
- Civil Engineering and Management

Textile and Polygraphy. Programmes in:

- Design and Technology of Textile Confections;
- Technology and Design of Footwear and Leather Goods
- Design and Printing Technology
- Textile and Leather Articles Engineering
- Industrial Fashion Design
- Applied Decorative Arts
- Textile Engineering and Management

Urban Planning and Architecture. Programmes in:

- Architecture
- Construction Machines and Mechanisms
- Urban and Regional Planning
- Interior Design
- Engineering of Materials and Construction Products
- Railways, Roads and Bridges
- Water Supply and Sewerage Systems
- Engineering of Heating, Gas and Ventilation Systems for Buildings
- Environment Engineering
- Sculpture

Economic Engineering and Business. Programmes in:

- Business and administration
- Marketing and Logistics
- Accounting

Faculty of Computer Science, Informatics and Microelectronics:

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

Faculty of Technology and Management in Food Industry:

- French Department of "Food technologies"

SCIENTIFIC RESEARCH

Studies and Research:

- The six research centers at TUM 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

Research Centers

- ENERGIE PLUS (renewable energy sources)
- Centre for Space Technology
- Centre for Renewable Energy Conversion Systems
- Centre for Continuing Education
- Astronomical Observatory
- METRONOM (innovations and technology transfer in metrology, standardization and quality assurance)
- National Centre for Materials Study and Testing
- Engineering of Microelectronic Systems and Biomedical Devices
- National Centre for Support of Nuclear Safety
- Development of Renewable Energy Conversion Systems
- Researches in combating dangerous geological processes

Doctoral School of Engineering

Doctoral Centers:

- Advanced Technologies, Knowledge-intensive Industrial Products and New Materials in Machine Building
- Modern Technologies in the Field of Electrical and Power Engineering
- Electronics and Informatics
- Radio Electronics and Communications
- Processing, Quality and Safety of Food Products
- Architecture, Construction and Design
- Entrepreneurship and Socio-human Education in Engineering

- Industrial companies
 - Fujikura Automotive MLD SRL, Mitutoyo, IBM Academic Initiative, Endava, Allied Testing, Rift Time Moldova, Durion GmbH, Pentalog, Dräxlmaier, Siemens, AKKA Technologies...
- 85 partner universities abroad
- 48 Erasmus+ partner universities

TUM: STAFF AND STUDENTS



- Students in a.y. 2017-2018

Bachelor - 8300

Master - 1130

Doctoral - 110

- Academic staff - 645



TECHNICAL COLLEGE OF CHISINAU

The Technical College of Chisinau is incorporated in the structure of the Technical University of Moldova

Study fields are:

- Materials Processing Technology
- Technological Equipment and Tools

Centre for Continuing Education

Missions:

- educational services for continuing professional training at the demand of enterprises, specialists from the national economy, interested individuals;
- continuing professional training of teaching and managerial staff of vocational education institutions related to TUM fields of activity.

No.	Type of education	Document received
1	Additional professional qualification for holders of higher education Diploma	Diploma
2	Professional retraining	Diploma
3	Multidisciplinary training / specialization courses	Certificate
4	Short-term training / specialization courses	Certificate

INTERNATIONAL COOPERATION



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

International cooperation

Since 1994 TUM has participated

- in educational and academic mobility projects financed through EU programmes, such as Tempus, Erasmus Mundus, CEEPUS, Erasmus +, and
- 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

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.

International cooperation

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

- 9 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, Universidade da Coruna, University of Siegen, Agrocampus Ouest, Ecole Nationale D'Ingenieurs de Saint Etienne, TransilvaniaUniversity of Braşov, Technische Universitaet Ilmenau, Universitaet Siegen, George Enescu University of Arts Iași, etc.

International cooperation

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 internationalisation of higher education in Moldova (selection 2016)



THANK YOU FOR YOUR ATTENTION !

