

Introduction to the Faculty of Exact and Natural Sciences



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Outline

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- Tbilisi State University
- Faculty of Exact and Natural Sciences
- Structure
- People
- Students and Programs
- Weakness
- Strength
- Mission

I.Javakhishvili Tbilisi state university

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- Founded in 1918
- First university in Caucasus
- Restructuring 1919 -2005
- Faculties
 - Exact and Natural Sciences
 - Humanities
 - Law
 - Economics and Business
 - Social and Political Sciences
 - Medicine

I.Javakhishvili Tbilisi state university

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- Students 18 000
- Professors 800
- Lecturers different from year to year
- Other staff 800
- Programs: Bachelor, Master, PhD
- International relations – 90 MOU
 - Some MOUs working
 - Some just exist on a paper
 - Some in implementation
 - Some in preparation

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- **Internationalization**
 - Joint educational programs
 - ✦ University of Cologne – Master program in law
 - ✦ Administrative School Spyer - Master program
 - ✦ Paris 8, Versaille-Saint-Quantaine – double degree, bachelor, Computer Science
 - Block courses
 - Joint projects
 - Updating curricula with participation of foreign experts
 - ✦ Tuning – Mathematics, Physics, Chemistry, ...
 - ✦ TEMPUS – Applied biology, Molecular biology, ...
 - ✦ SCOPES, SNSF - Mathematics

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- **Structure**

- **Departments = 8**

- ✦ main structural unit, former faculties at TSU
- ✦ teaching and research
- ✦ funding - TSU

- **Laboratories = 33**

- ✦ assisting in research and teaching
- ✦ funding - TSU

- **Institutes = 17**

- ✦ research
- ✦ funding – external only, project based

- **Centers = 2**

- ✦ teaching
- ✦ funding – external only, tuition fee based

- **Chairs = 0**

- ✦ expected at the end of 2010

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- **Structure**

- **Departments = 8**

- ✦ Mathematics
- ✦ Computer Science
- ✦ Physics
- ✦ Chemistry
- ✦ Biology
- ✦ Geography
- ✦ Geology
- ✦ Electrical and Electronic Engineering

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- People

- Professors 168

- ✦ full professor
- ✦ associate professor
- ✦ assistant professor

- Administrative and technical staff -183

- ✦ deans office, management of teaching and research
- ✦ laboratories

- Lecturers 200

- ✦ number - variable from semester to semester
- ✦ trend – reduce number of lecturers

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- **Students XII.2009**

- Bachelor – 2400
- Master – 200
- PhD - 100

- **Programs**

- Bachelor programs 12:
 - ✦ Mathematics, computer science, computer science (franco-georgian, double degree), physics, chemistry, biology, applied biology and biotechnology, geography, geology, ecology, electronic and electrical engineering, natural sciences
- Master programs 17
- PhD programs 20

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- Joint educational programs
 - Paris 8, Versailles-Saint-Quantaine
 - ✦ degree=double degree,
 - ✦ cycle=bachelor,
 - ✦ field=Computer Science,
 - ✦ status = active, graduates every year
 - University of Westminster –
 - ✦ degree = double degree,
 - ✦ cycle= master,
 - ✦ field = Molecular Biology,
 - ✦ status = implementation(TEMPUS), first graduates are expected in 2012
 - University of Gottingen-
 - ✦ degree = joint degree,
 - ✦ cycle= PhD,
 - ✦ field=Mathematics,
 - ✦ status=preparation, MoU will be signed in May

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- **Weakness**

- In 2010: 32% of Georgian high school graduates applied for TSU
- Faculty of ENS is less popular than other faculties at TSU among high school graduates
 - ✦ in 2010 at the faculty
 - admission quota = 450
 - applications = approximately 2900
 - non uniform distribution
 - Mathematics – 2150
 - Physics – 43
 - Chemistry – 68
 - Biology – 250
 - Geography - 450
- Highly non uniform distribution of students on educational programs inside faculty
 - ✦ computer science, mathematics, geography, biology, physics, electrical engineering, geology, chemistry
- High number of technical staff,...

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- **Strength**
 - Much more research potential than other faculties at TSU
 - Number of publications in 2009
 - ✦ total= 100
 - ✦ ISI web of science = 40%
 - ✦ trend = number of publications will increase
 - review of performance is expected
 - Number of funded projects in 2009
 - ✦ total= 65
 - ✦ international=50%
 - Some departments are more research oriented

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- **Mission**
 - The main activity of the Faculty of Exact and Natural Sciences shall be
 - ✦ fundamental and applied research
 - ✦ research-based teaching
 - ✦ further elaboration of educational programs for attracting motivated students

Thank you very much for your attention