Software Engineering and Management Information Technology Department

Specialties Description

http://asu.kh.ua/

2017

NTU "KhPI"

National Technical University "Kharkiv Polytechnic Institute" is the oldest technical university of Ukraine. Computer specialties are more than 50 years old in NTU "KhPI". NTU "KhPI" is in the top 15 of IT universities in Ukraine.

Faculty of Computer Science and Software Engineering

Faculty was launched in 2000 in response to the urgent needs of scientific and technological progress of modern human community and, in particular, Ukraine's economic development.

SEMIT Department

- Was founded by professor A.V. Dabahyan in **1964**.
- **1964** – department: "Automatic Control of Movement", specialties: "Flight Dynamics and Ballistic Rockets Control", "Computer-aided Management Systems"
- **1977** – department: "Computer-aided Management Systems", specialties: "Computer-aided Management Systems", "Information Management Systems and Technologies", and "Computer-aided Systems Software"
- **2015** – department: "Software Engineering and Management Information Technologies", specialties: "Computer science" and "Software Engineering".

- Graduates – more than **2000**
- PhD – more than **100**
- Doctors of science – more than **20**

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Team

Our team combines scholars, researchers, post-docs and assistants who inspire students to achieve their goals.

Head of Department:
Prof. Mykhailo GODLEVSKYI ,Dr. of Tech. Science,
Contacts: e-mail - god_asu@kpi.kharkov.ua, phone/fax +380577076520

Teaching

We provide Education Programs for Bachelors, Masters and PhDs levels in
1. Computer Science
2. Software Engineering

Research

❑ Business Data Mining Based on Web-monitoring
❑ Simulation-Based Models for Distributed Logistics
❑ Processing of weak-structured textual data
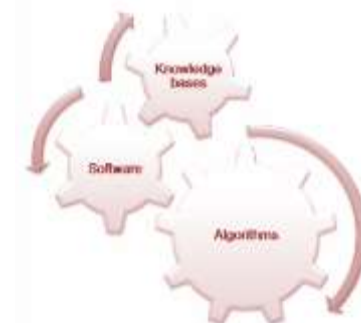❑ Quality Improvement of Software Development Process

Teaching: Key Points

✓ *Math and Programming Background*

✓ *English and language skills*

✓ *Cooperation with real business*

Core subjects

Fundamentals	Software Technologies
Calculus	Coding and Programming Languages
Discrete Mathematics	Numerical Methods
Special Sections of Operations Research	Object-Oriented Programming
Probability Theory	Programming (Java, .NET, PHP)
Mathematical Statistics	Computer Networks
Queue Theory	Software Architecture and Design
Theory of Algorithm	Design and Maintenance of Databases
Modeling and Simulation	Mobile Software

Teaching in English

English level monitoring (1st year students)

- Pre-intermediate
- Intermediate
- Upper-intermediate
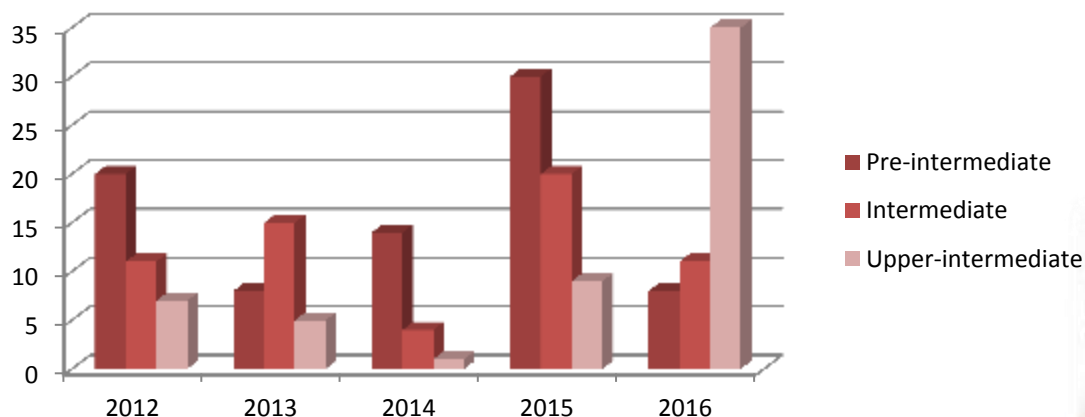
Software Engineering Training (in English)
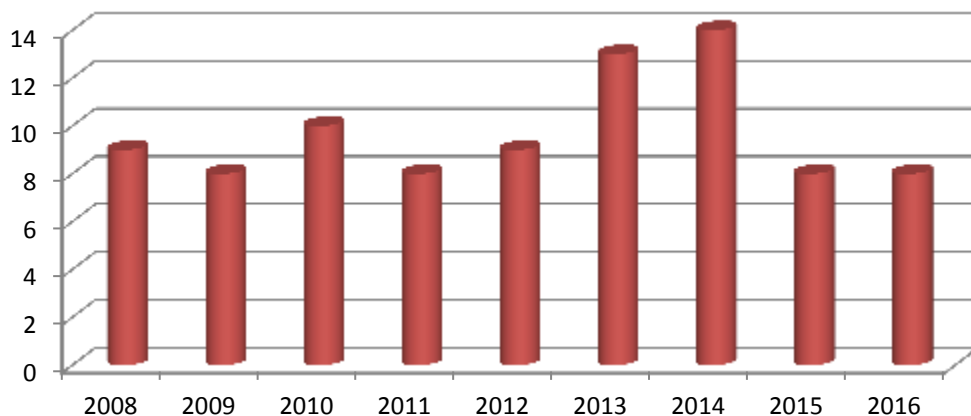
✓**Language classes**

✓**The second foreign language**

✓**English for academic purposes**

Partnership with Business

Amount of Students

Bachelor-level Students

Year	CS	SwE
2008	30	35
2009	27	37
2010	30	38
2011	23	28
2012	29	30
2013	32	29
2014	28	34
2015	37	50
2016	61	74

Master-level Students

Year	CS	SwE
2012	27	37
2013	24	35
2014	26	38
2015	30	30
2016	37	34
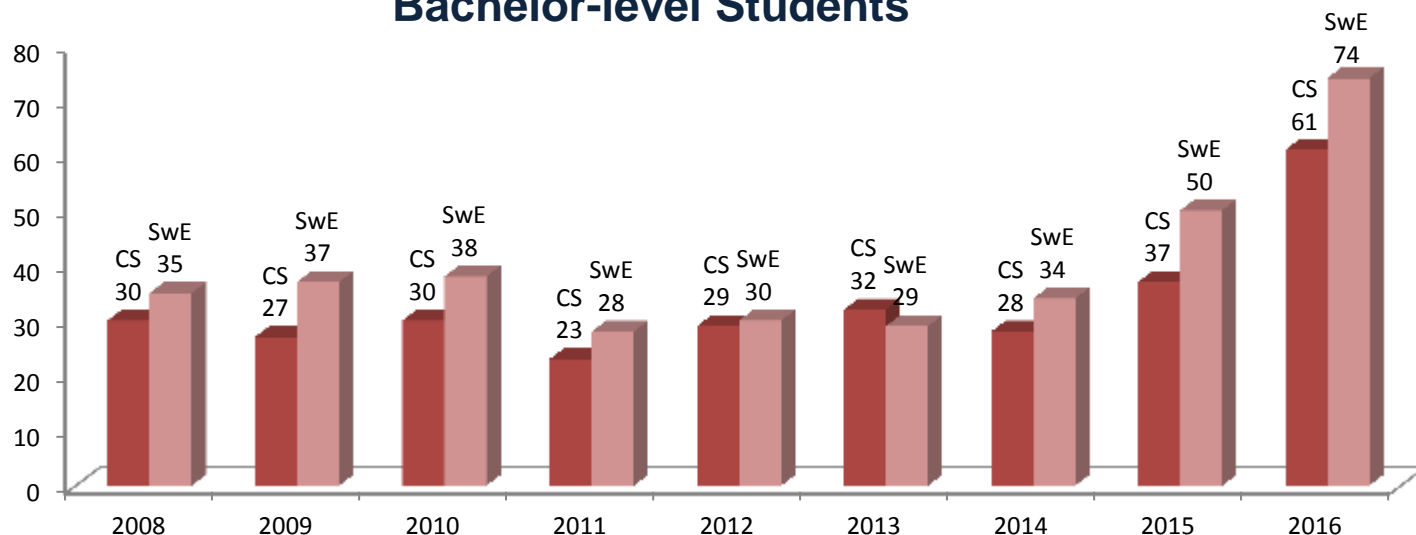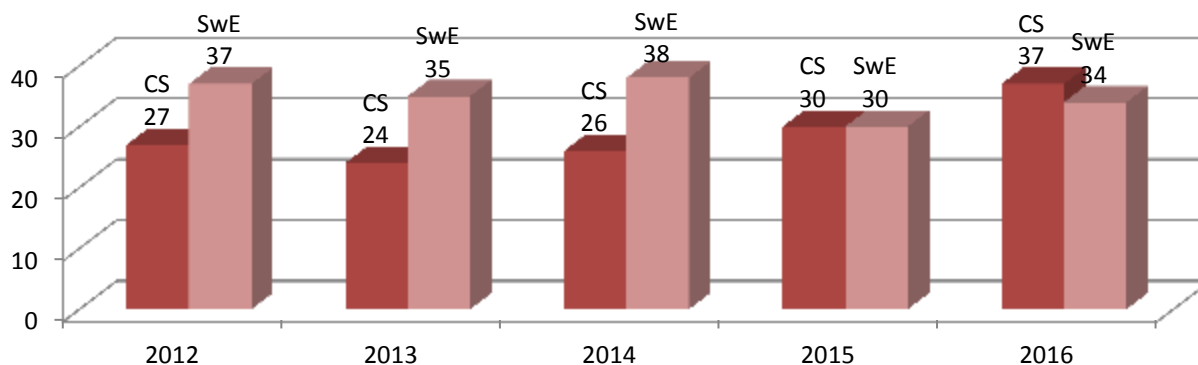
Teaching

Bachelor Program in Computer Science
Information and Management Systems and Technologies

Master Programs in Computer Science
Software Project Management

Business Analysis and Management

PhD Program in Computer Science
Information and analytical technologies for monitoring and management of complex systems

Bachelor Program in Software Engineering
Engineering of Software Systems

Master Programs in Software Engineering
Software of Intelligent Systems

Distributed Software Systems and Technologies

Master Program "Intelligent Systems Software"

Core courses:
- ❑ Basics of Intelligent Systems Design;
- ❑ Theory of Intelligence;
- ❑ Agent-Oriented Paradigm of Software Systems Development;
- ❑ Mathematical Fundamentals of Computational Intelligence;
- ❑ Intelligent Search and Data Analysis;
- ❑ Prospective Concepts and Technologies of Intelligent Software Systems;
- ❑ Models and Technologies of Software Security.

Master Program "Distributed Software Systems and Technologies"

Core courses:
- ❑ Architecture and Technologies of Distributed Software Systems;
- ❑ Models and Software Tools for Distributed Computing;
- ❑ Cloud Techniques and Applications;
- ❑ Engineering Design Patterns and Integration of Corporate Applications;
- ❑ Engineering and Re-engineering in Business Systems;
- ❑ Models and Techniques of Enterprise IT-infrastructure Management;
- ❑ Prospective Concepts and Technologies of Distributed Software Systems.

Master Program "Business Analytics"

Core courses:

❑ Software Requirements Analysis and Management;

❑ Methods and Models of Management in Modern Business Systems;

❑ Engineering and Re-engineering in Business Systems;

❑ Documentation and Communication in Business Analytics;

❑ Information Systems in Management;

❑ Data Analysis and BI-techniques;

❑ Cloud Computing.

Master Program "IT Project Management"

Core courses:

❑ Project Management Standards and Methodologies;

❑ Quality management in IT-projects;

❑ Planning, Implementation and Finalizing of IT Projects;

❑ IT Project Teams Forming and Development;

❑ Risk Management in IT Projects;

❑ Information Technologies in IT Project Management;

❑ Methods of Project Evaluation.

Current International Projects

❑ Erasmus+ Programme KA2
  Establishing Modern Master-level Studies
  in Information Systems
  561592-EPP-1-2015-1-FR-EPPKA2-CBHE-JP

❑ Erasmus+ Programme KA1
  Higher Education Student and Staff Mobility Inter-
  institutional agreement between Poznań University
  of Economics and Business and National Technical
  University "Kharkiv Polytechnic Institute"

❑ Erasmus+ Programme KA1
  Higher Education Student and Staff Mobility Inter-
  institutional agreement between The Alpen-Adria-
  Universität Klagenfurt and National Technical
  University "Kharkiv Polytechnic Institute"

Alumni perspective positions

- ❑ Quality Assurance Engineer;
- ❑ Software Developer;
- ❑ Project Manager;
- ❑ Business Analyst;
- ❑ Database Administrator.

Contacts

Olga CHEREDNICHENKO,

Associate professor of SEMIT
department,
National Technical University
"Kharkiv Politechnic Institute"
olha.cherednichenko@gmail.com

Mykhailo GODLEVSKYI,

Doctor of Technical Science, Professor
Head of SEMIT department,
National Technical University
"Kharkiv Politechnic Institute"
god_asu@kpi.kharkov.ua
Tel/fax +38(057)7076520

Cooperation is important for quality!