



Project TEMPUS CERES Centers of Excellence for young Researchers 544137-TEMPUS-1-2013-1-SK-TEMPUS JPHES

CERES portal v 1.1

User manual (draft)



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Document history

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1.01	Formal corrections, logos added	Patrik Hrkút	ZU	10/24/2016
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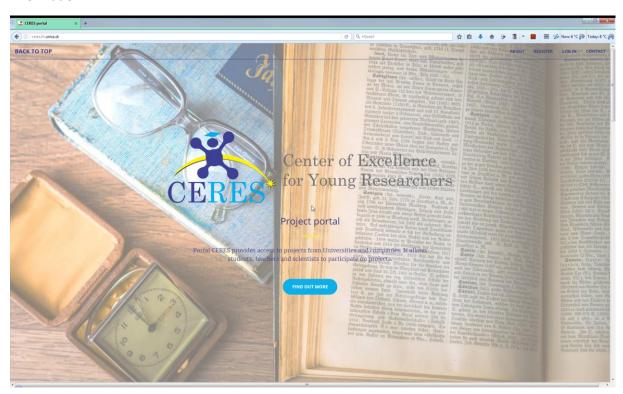




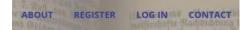
Front side (public accessible)

Homepage

The front side of the portal is free accessible (no login needed). Here visitors can find information about the project itself. The third section contains registration forms. A user with a valid username and password can log in the private part of the system in the next section. The last section provides contact information.



Main menu is located in the right upper corner of the main page.



Registration

This section of frontend contains 4 registration forms (student, employee, university, company). Information about registrations are saved and can be displayed in the backend. Registration is not automatically approved, the action of system or organization admin is needed. After approval from the admin the registration will get approved and a new user or organization is added. An e-mail is sent to all system admins, when a new company or university was registered. An e-mail to admin of a particular organization is sent, if a new student or teacher/employee was registered.





A new student can be registered in the following form. Only basic information from the user is required. The form is protected with Captcha from being misuses by web form robots. An information marked with * is required and form will not be sent, if this information is missing.

Personal information First name: * Last name: * E-mail address: * Study information University name: * Faculty name: Department name: V I'm not a robot SAVE CANCEL * required fields

A new Employee can be registered in the following form. Only basic information from the user is required. The form is protected with Captcha from being misuses by web form robots. An information marked with * is required and form will not be sent, if this information is missing.

Employee regi	stration form
Personal information •	_
First name:*	
Last name: *	
E-mail address:*	
Business information 🕶	
University/company name: *	
Faculty/Division name:	
Department name:	
	I'm not a robot reCAPTCHA Privacy - Terms SAVE CANCEL
* required fields	





A new university can be registered in the following form. A contact person is important because a new organization admin will be created from this information. The form is protected with Captcha from being misuses by web form robots. An information marked with * is required and form will not be sent, if this information is missing.

General info University registration form University name:* Town:* Country:* Contact person First name:* Last name:* E-mall address:* Tm not a robot SAVE CANCEL

A new company can be registered in the following form. A contact person is important because a new organization admin will be created from this information. The form is protected with Captcha from being misuses by web form robots. An information marked with * is required and form will not be sent, if this information is missing.

Company regis	stration form
General info 🕶	_
Company name:*	
Town:*	
Country: *	
Contact person 🕶	
First name: *	
Last name: *	
E-mail address: *	
	I'm not a robot reCAPTCHA Privacy - Terms
* vocation of fields	SAVE CANCEL





Login

To access the private section of the portal login information is needed. A system or organization admin can create an account for a new user. If you check "Keep me signed in" your session will be automatically last 14 days, otherwise it will be cancelled after 20 minutes of inactivity.

Portal access				
Username: *				
Password:*				
	■ Keep me signed in			
	SIGN IN			





Backend portal section (private, login needed)

The main backend portal architecture

This section is accessible only after successful logging in. The backed portal consists of two types of components. A grid table is a component, which contains information about a particular entity, e.g. an organization and a set of forms, e.g. form for an organization record edit.

Grid tables

All portal data are displayed in grid tables. The grid table shows all relevant data of given entity. These components are sortable, filterable and records are divided into pages to keep page size small.

Sorting records

User can sort all records by clicking on the header of a column. Clicking the header again will sort the data in the table in other direction.

Filtering records

The row below the header can be used for records filtering. The records in a table can be filtered by a particular column or filter can be combined, so you can filter more than one column at once (ENTER key or the icon execute the filter). A user can cancel filter by clicking the following icon Some filters are textual; others use a list of values (e.g. Category):



Paging

User can set how many records he wants to see on each page. Default setting is 20 records per page. If an entity has more than 20 records, the paging tool is displayed and user can move between pages using Next or Previous button, or click directly on the page number.



Actions

Every editable grid has the action column, where all action icons are located. User can edit the record or perform any allowed operation with the record. E.g. system admin in the grid table Organizations can edit the organization record (the action icon) or define a structure of it (the action icon).







Tabs

If there are several operations on an entity, these operations are arranged into tabs. A user can switch among tabs by clicking on a tab name.

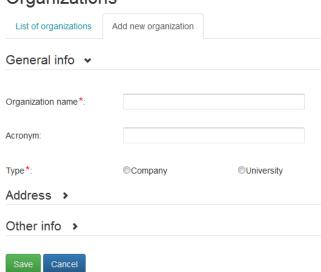
Employees



Forms

Forms are the tools for editing or adding records to the portal. They are regular HTML form, where a user can add a new record or edit existing one. Some forms are divided into section, which are foldable and the user can hide any part of a form. In the picture is a sample form with 3 sections, two of them are folded. All fields marked with the red asterisk * are required and if they are empty, the form can't be successfully saved. On the end of a form are always buttons. If you want to send a form data, you press the button save, if you want to cancel sending form the button should be pressed. In this case no data will be sent and all changes are lost.

Organizations







Roles

To define operations for a particular user in the system roles are used. Each user can have only one role in the system. There are four roles in this system:

- System Admin
- Admin (organization)
- Teacher/Employee
- Student

Main menu for System admin:

CERES administration	Organizations	Users	Topics	Applications	Registrations	Log out
----------------------	---------------	-------	--------	--------------	---------------	---------

Select menu item.

System admin

This role is the role with the highest permissions in the portal. A user with this role can execute all operations in the portal. For example, only user with this role can add a new organization, or set another user as a new system admin. There can be more than one system admin defined.

Admin

A user with this role is an admin for a particular organization. This user can manage information about organization, add or edit a structure of the organization. He can add or edit also all information about employees and students (in case the organization is a university). There can be more than one administrator per organization set.

Teacher/Employee

A user with this role can add a new topic or task for students, or edit existing one, (if he is the author). He can also accept a student on the applied task.

Student

A user with this role is allowed to display all topics and tasks available. A student can apply for a task and see, if the teacher/employee accepts him for a particular task.

Main entities

Organizations

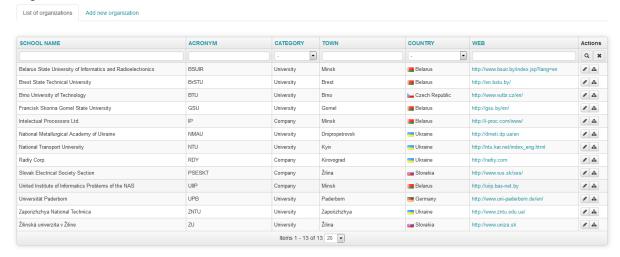
This part of portal allows manage all information about organizations involved in project. A system admin can add a new organization, or edit any organization. Admin can edit only the information about organization, where he is set as its admin. An organization can't be deleted, because there can be other entities, which reference the organization (e.g. faculties, departments or topics by the teacher, who





works at a university). Similarly all faculties or departments, study fields and specializations can't be deleted.

Organizations



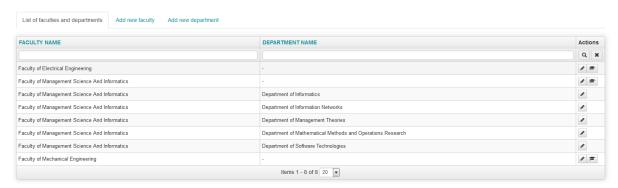
Each organization can have a structure. Universities can be structured into faculties and departments and companies can have divisions and departments. This classification is optional and organization doesn't need to have a structure.

Faculties/departments and division/departments

Only system admin can edit the structure of any organization. The user with the role admin can edit the structure of its organization (the action icon in Organization grid table).

Faculties and Departments

Žilinská univerzita v Žiline



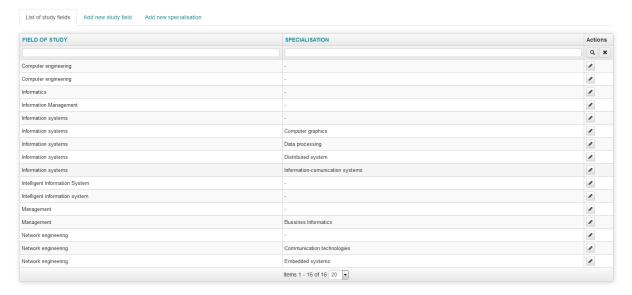
Study fields and specializations





Study fields

Žilinská univerzita v Žiline - Faculty of Management Science And Informatics



Users

All users in the portal are either teachers/employees or students. The role of a user can be specified in the Employee form. Only employees can have a role of admin or system admin. A student can't have another role. System admin can edit all employee/teacher or student records. He can also add a new user to the system. The admin of an organization can add a new student or teacher/employee, who belongs to the organization, where he is an admin. To edit employee/teacher or student records the organization admin have to check the option to show only records from organization he manages.

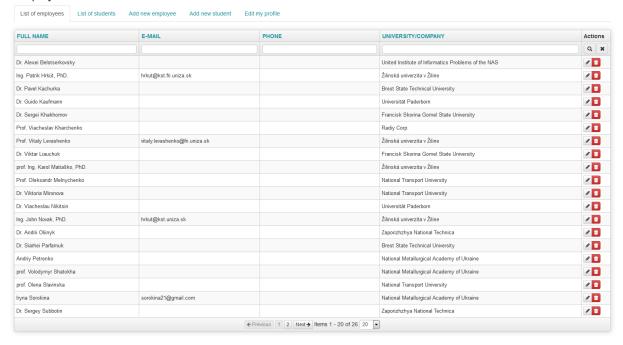
Show only employees from my university (Edit)

User can be deleted using the action icon , however the record is not deleted, it is only set to inactive and it will be not displayed in the grid table Employees or Students. All topics and tasks, whose author was marked as deleted remain in the system.





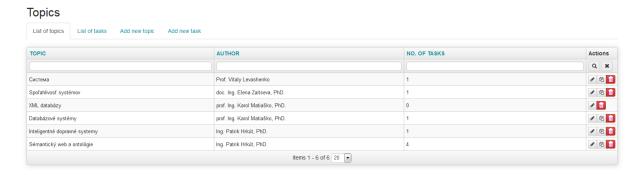
Employees



Each user (all roles) can edit his profile. There are personal, login and business information about the user.

Topics

A teacher/employee can add a new topic to the system. A topic is a basic problem definition. After topic adding, any number of tasks can be added to system related to the topic. To see all tasks related to a topic, user can click on the action icon in the grid table Topics. An organization admin can edit all topics added by the teachers/employees from organization he manages. A teacher/employee can edit only his own topics or add a new one. A topic can be deleted by clicking the action icon however the topic is not deleted (system can contain related tasks), it is only set as inactive, so no new tasks can be added and the deleted topic will be not displayed in the grid table Topics anymore.



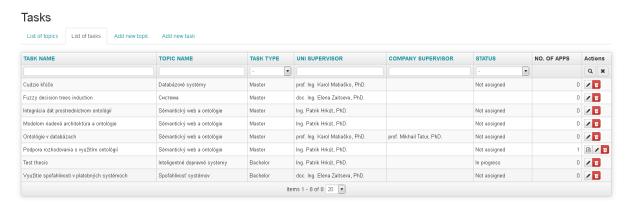
Tasks

A task can be defined as a particular assignment definition. The assignment can specify a master or bachelor thesis, or another kind of assignment. One topic can have many tasks defined. Any teacher/employee can add a new task for a topic, which created another teacher/employee. A user





can see all related tasks for a topic by clicking on the action icon in the grid table Topics. If there are no tasks for a topic, the icon is not available. If some students have applied for the task, the action icon is displayed next to the task record and a user can show all applications. A student can enroll to selected task clicking to the action icon . If a student is enrolled, he can cancel his enrollment by clicking on the action icon . A task can be deleted using the action icon , so it will be not displayed in the grid table Tasks, however the task will be only marked as inactive and remains in the system.



Applications

This grid table contains all student applications. If the task is free (no student was accepted for the task), a student can enroll for this task. Student can enroll for more than one task. If the student is accepted for a task by the teacher/employee, all other tasks he enrolled for are set to 'not accepted', but all applications remain in the system. Teacher/employee can accept a student for task, he created using the action icon . An organization admin can accept any task defined by the teacher/employee from the organization, he manages. System admin can accept any application. If the task is assigned to a student, it changes its status to 'In progress' and the applications from all other students are not accepted.

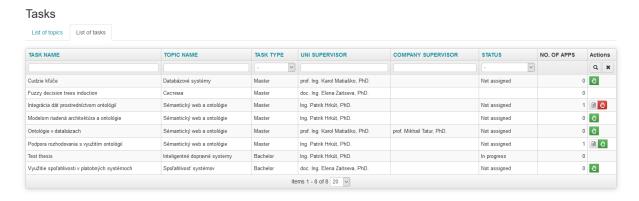
A list of applications from a teacher/employee point of view:





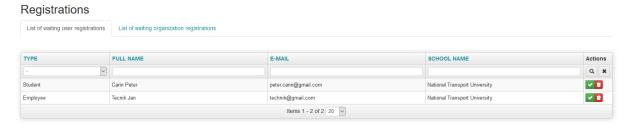


A list of applications from a student point of view:



Registrations

A new student, teacher/employee, university or company can register from the frontend. If a new registration is received, all system admins (in case of a new university or company registration) are notified by e-mail. In case of a new student or teacher/employee registration all organization admins (from organization, where a new student or teacher/employee is trying to register to) are notified by e-mail. The registration is not accepted automatically, but the action from a system admin or admin is needed. A new student or teacher/employee can be approved by admin of organization, the admin manages. All registrations are accessible from the backend system. Registration of users (student and teacher/employee) is in the joined into one grid table. Admin of organization (or system admin) can click on the action icon to show all new user registration, edit and save (approve) it. An e-mail to registered user is sent after save.



University and company registration is joined into one grid table. The registration process of an organization has two phases. In first phase a registration of an organization is performed and then, in the second phase a new admin of the created organization have to be set (the action icon)



Logout

A user can log out at the end of his work. User is automatically logged out after 20 minutes of inactivity. This timeout can be extended to 14 days, if the user check the option 'Keep me signed in' on login form.





Import & Export

General info about import

This module allows to import data to the portal. Organization admin can import data for the organization, where he is set as admin. System admin can import data for any organization after choosing the organization on import screen. Here are some general comments for successful data import:

- 1. Only system admin or organization admin can import data.
- 2. Do NOT import previously exported data, even if you changed them. Import will always create new records, so there will be two (or more) duplicate records after the import, and desired record will NOT be updated.
- 3. Always use the UTF-8 character encoding, any other encoding will cause mess in data.
- 4. Do not add an empty line in the end of the imported file.
- 5. The first line of the imported file MUST be the list of attribute names. You can find allowed attribute names in the following tables. The order of the attributes in header line is not important. Any other attributes will be ignored.
- 6. All imported lines must have the same number of columns. If the value of an attribute is empty, specify it by omitting the value (two delimiters will one after another).
- 7. The format a file is CSV (*Comma separated values*). If you create the file manually, don't forget to use double quotes, if there is a delimiter in value! Specify the correct delimiter on import screen.
- 8. Description and similar columns can contain HTML tags.
- 9. If there is a problem in data being imported, no data will be imported at all. You can fix the problem and run the import again. If the import was successful, don't run the import again, you will get duplicate records.
- 10. You cannot import record and set it as deleted (is_enabled = No).
- 11. You cannot import data for other organization. If any record breaks this rule, all import is cancelled.
- 12. Don't specify the internal ID of an imported entity (e.g. student), it will be ignored.

Example of imported CSV file

The example for topics import file is shown here (topics.csv). The line 1 contains all attributes, which will be imported. You must specify all required attributes; other attributes can be omitted. If the value of an attribute contains the delimiter (line 2 of example, attribute description) you MUST enclose it in double quotes. You can omit a value of attribute, if it is not required as shown on line 3 (attribute description). All attributes for import of entities are described in next chapters.

name; name_en; description; science_branch_id; employee_id
Aplikácia pre zber dát; Application for data colletion; "Details comments"; 48; 7
Aplikácia pre spracovanie dát; Application for data processing; 48; 8





Import of students

The following attributes can be imported:

Column name	Required?	Description		
title_before No		Title before the name		
first_name	Yes	First name of the student		
last_name	Yes	Last name of the student		
title_after	No	Title after the name		
login	No	Login of the student, if no login is specified, a new login will be generated by the portal.		
pass	No	Password of the student, if no password is specified, a new password will be generated by the portal.		
sex	No	Gender of the student		
e_mail	Yes	Email address of the student		
telephone_no	No	Telephone number of the student		
class	No	Student's class		
study_group	No	Study group of the student		
study_field_id* No		Internal ID of student's study field		
fclanddpt_id** No		Internal ID of the faculty or department, where student belongs to.		
description	No	Additional info about the student		

^{*} Only study fields from the imported organization can be specified.

Import of teachers/employees

The following attributes can be imported:

Column name	Required?	Description		
title_before	No	Title before the name		
first_name	Yes	First name of the teacher/employee		
last_name	Yes	Last name of the teacher/employee		
title_after	No	Title after the name		
login	No	Login of the teacher/employee, if no login is specified, a new login will be generated by the portal.		
pass	No	Password of the teacher/employee, if no password is specified, a new password will be generated by the portal.		
sex	No	Gender of the teacher/employee		
e_mail	Yes	Email address of the teacher/employee		
telephone_no	No	Telephone number of the teacher/employee		
from_date	No	The date teacher/employee joined the organization.		
to_date	No	The date teacher/employee left the organization.		
fclanddpt_id*	No	Internal ID of faculty or department, where the teacher/employee belongs to.		
description	No	Additional info about the teacher/employee		

^{*} Only departments or faculties from the imported organization can be specified.

Note: You cannot import a system admin or admin. User role is always set to Teacher/Employee.

^{**} Only departments or faculties from the imported organization can be specified.





Import of topics

The following attributes can be imported:

Column name	Required?	Description
name	Yes	Name of the topic
name_en	Yes	Name of the topic in english
description	No	Topic description
science_branch_id	Yes	Internal ID of related science branch (see chapter science branches)
employee_id*	Yes	Internal ID of the teacher/employee, who created the topic. You can learn the ID from the export of employees.

^{*}Only employees or teachers from the imported organization can be specified.

Import of tasks

The following attributes can be imported:

Column name	Required?	Description		
name	Yes	Name of the task		
name_en	Yes	Name of the task in English		
work_type	Yes	Type of task (Bachelor, Master, PhD. ,CSc., Project)		
subject	Yes	Internal ID of related science branch		
content	No	Detailed task assignment		
supervisor_id*	Yes	Internal ID of the teacher/employee, who is the supervisor of the task. You can learn the ID from the export of teachers/employees.		
topic_id**	Yes	Internal ID of the topic related to the task. The topic must exist in the database. You can learn the ID from the export of topics.		

^{*} Only employees or teachers from the imported organization can be specified.

Note: Status of the task is always set to 'Not assigned'

Import of study fields

The following attributes can be imported:

Column name	Required?	Description
degree	Yes	Level of degree, which can be obtained (1-3)
field_of_study	Yes	Name of the study field
specialization	No	Study field specialization (if any)
shortcut	No	Study field shortcut
title	No	Title obtained after study finish
fclanddpt_id*	Yes	Internal ID of associated faculty

^{*} Only faculty from the imported organization can be specified.

^{**} Only topics which author is from the imported organization can be specified.





Import of student applications

The following attributes can be imported:

Column name	Required?	Description	
registration_number	No	Registration number of application	
registration_year	No	Year of registration	
action*	Yes	What will happen with the student application. (Accept on Enroll)	
description	No	Additional info about the application	
student_id**	Yes	Internal ID of the student	
task_id	Yes	Internal task ID related to application. The task must exist in the database.	

^{*} If you specify action 'Enroll', student will be enrolled only (not accepted) on the task. If there is another student already accepted on the task, an error message will be displayed. If you specify 'Accept', student will be accepted on the task. If another student is already accepted on the task, an error message will be displayed.

Export

This module allows to export data for using in other information systems. Organization admin can export data for the organization, where he is set as the admin. System admin can export data (one organization per one export) for any organization after choosing the organization in export screen. Here are some general comments for data export:

- 1. Only system admin or organization admin can export data.
- 2. Data are exported in UTF-8 character encoding.
- 3. The format a file is CSV (Comma separated values). Choose the correct delimiter on export screen.
- 4. Only active (not marked as deleted) records are exported.

Export of students

The structure of the export is the following:

Column name	Description
student_id	Internal student ID
title_before	Title before the name
first_name	First name of the student
last_name	Last name of the student
title_after	Title after the name
login	Login of the student
sex	Gender of the student
is_enabled	Is active? Always set to 'Yes' (only active students are exported).
e_mail	Email address of the student
telephone_no	Telephone number of the student
class	Student's class
study_group	Study group
study_field_id	Internal ID of student's study field

^{**} Only student from the imported organization can be specified.





fclanddpt_id	Internal ID of the faculty or department, where the student belongs to.
description	Additional info about the student

Export of teachers/employees

The structure of the export is the following:

Column name	Description
employee_id	Internal teacher/employee ID
title_before	Title before the name
first_name	First name of the teacher/employee
last_name	Last name of the teacher/employee
title_after	Title after the name
login	Login of the teacher/employee
sex	Gender of the teacher/employee
is_enabled	Is active? Always set to 'Yes' (only active students are exported).
e_mail	Email address of the teacher/employee
telephone_no	Telephone number of the teacher/employee
fclanddpt_id	Internal ID of faculty or department, where the teacher/employee belongs to.
description	Additional info about the teacher/employee

Export of topics

The structure of the export is the following:

Column name	Description
topic_id	Internal topic ID
name	Name of the topic
name_en	Name of the topic in English
description	Topic description
science_branch_id	Internal ID of related science branch (see chapter science branches)
employee_id	Internal ID of the teacher/employee, who created the topic

Export of tasks

The structure of the export is the following:

Column name	Description
task_id	Internal task ID
name	Name of the task
name_en	Name of the task in English
work_type	Type of task (Bachelor, Master, PhD., CSc., Project)
subject	Internal ID of related science branch
content	Detailed task assignment
employee_id_school	Internal ID of the teacher from university, who is the supervisor of the task (can be empty)
employee_id_comp	Internal ID of the employee from private company, who is the supervisor of
	the task (can be empty)
status	Status of the task (Not assigned, In progress, Finished)
topic_id	Internal ID of the topic related to the task





Export of study fields

The structure of the export is the following:

Column name	Description
study_field_id	Internal study field ID
field_of_study	Name of the study field
specialisation	Study field specialization (if any)
shortcut	Study field shortcut
title	Title obtained after study finish
fclanddpt_id	Internal ID of associated faculty

Export of student applications

The structure of the export is the following:

Column name	Description
work_id	Internal application ID
registration_number	Registration number of the application
registration_year	Year of registration
status	Status of the application (Accepted, Not Accepted, Enrolled, Successful, Failed)
description	Additional info about the application
student_id	Internal ID of the student
task_id	Internal task ID related to student's application

Science branches

Here is a list of the used science branches in the portal:

science_branch_id	Branch name	Science
<u>30</u>	Accounting and Taxation	Management and administration
88	Agro Engineering	Agricultural and food science
<u>81</u>	Agronomy	Agricultural and food science
<u>111</u>	Air transport	Transportation
<u>46</u>	Applied Mathematics	Mathematics and statistics
<u>52</u>	Applied Mechanics	Mechanical Engineering
<u>43</u>	Applied Physics and Nanomaterials	Natural Sciences
<u>78</u>	Architecture and town planning	Architecture and building
<u>106</u>	Arms and Military Equipment	Military Science, National Security, Security of the State Border
<u>63</u>	Automation and Computer Integrated Technologies	Automation and Instrumentation
<u>55</u>	Aviation and Space Equipment	Mechanical Engineering
<u>71</u>	Avionics	Electronics and Telecommunications
<u>38</u>	Biology	Biology
<u>68</u>	Biomedical Engineering	Chemical and Bioengineering
<u>67</u>	Biotechnology and Bioengineering	Chemical and Bioengineering
<u>79</u>	Building and Civil Engineering	Architecture and building





<u>35</u>	Business, Trade and Exchange Activities	Management and administration
<u>109</u>	Civil Security	Civil security
<u>49</u>	Computer Engineering	IT
48	Computer Science and Information Technology	IT
<u>20</u>	Cultural	Humanities
<u>51</u>	Cybersecurity	IT
<u>91</u>	Dental Health	Health
9	Design	Culture and art
<u>41</u>	Earth Sciences	Natural Sciences
<u>39</u>	Ecology	Natural Sciences
<u>23</u>	Economics	Social and behavioral science
<u>58</u>	Electricity, Electronics and Electrical Engineering	Electrical Engineering
<u>69</u>	Electronics	Electronics and Telecommunications
<u>59</u>	Energy Engineering	Electrical Engineering
<u>54</u>	Engineering Sector	Mechanical Engineering
<u>31</u>	Finance, Banking and Insurance	Management and administration
<u>10</u>	Fine Art, Decorative Art Restoration	Culture and art
<u>107</u>	Fire safety	Civil security
<u>72</u>	Food Technology	Production and Technology
<u>105</u>	Forces Maintenance	Military Science, National Security, Security of the State Border
<u>85</u>	Forest	Agricultural and food science
<u>61</u>	Heat and Power Engineering	Electrical Engineering
<u>4</u>	High school (By subject specializations)	Education
<u>101</u>	Hiking	Service sector
<u>18</u>	History and Archaeology	Humanities
<u>83</u>	Horticulture and viticulture	Agricultural and food science
<u>100</u>	Hotel and restaurant business	Service sector
<u>62</u>	Hydropower	Electrical Engineering
<u>66</u>	Chemical Technology and Engineering	Chemical and Bioengineering
<u>40</u>	Chemistry	Natural Sciences
<u>11</u>	Choreography	Culture and art
<u>16</u>	Information, Library and Information Science	Culture and art
<u>28</u>	International Economic Relations	Social and behavioral science
<u>37</u>	International law	Law
<u>27</u>	International Relations, Public Communications and Regional Studies	Social and behavioral science
<u>29</u>	Journalism	Journalism
86	Landscape Economy	Agricultural and food science
36	Law	Law





108	Law Enforcement	Civil security
73	Light Industry Technology	Production and Technology
32	Management	Management and administration
15	Management of Socio-cultural Activities	Culture and art
<u>84</u>	Manufacturing and Processing of Animal Products	Agricultural and food science
<u>34</u>	Marketing	Management and administration
<u>53</u>	Materials	Mechanical Engineering
44	Mathematics	Mathematics and statistics
<u>95</u>	Medical and Psychological Rehabilitation	Health
94	Medical Technology for Diagnosis and Treatment	Health
<u>92</u>	Medicine	Health
<u>57</u>	Metallurgy	Mechanical Engineering
<u>64</u>	Metrology and Information and Measuring Technology	Automation and Instrumentation
<u>65</u>	Micro- and Nano- Technology	Automation and Instrumentation
<u>104</u>	Military administration (by the Armed Forces)	Military Science, National Security, Security of the State Border
<u>75</u>	Mining	Production and Technology
<u>14</u>	Museology, Monuments	Culture and art
<u>12</u>	Music Art	Culture and art
<u>60</u>	Nuclear power	Electrical Engineering
<u>93</u>	Nursing	Health
<u>76</u>	Oil Engineering and Technology	Production and Technology
<u>13</u>	Performing Arts	Culture and art
<u>96</u>	Pharmacy	Health
<u>21</u>	Philology	Humanities
<u>19</u>	Philosophy	Humanities
<u>7</u>	Physical Culture and Sports	Education
<u>97</u>	Physical Rehabilitation	Health
<u>42</u>	Physics and Astronomy	Natural Sciences
<u>24</u>	Political science	Social and behavioral science
<u>2</u>	Preschool Education	Education
<u>3</u>	Primary education	Education
<u>5</u>	Professional education (with specializations)	Education
<u>82</u>	Protection and Plant Quarantine	Agricultural and food science
<u>25</u>	Psychology	Social and behavioral science
33	Public Management and Administration	Management and administration





<u>115</u>	Public Management and Administration	Public Management and Administration
<u>77</u>	Publishing and Printing	Production and Technology
<u>112</u>	Rail transport	Transportation
<u>17</u>	Religion	Humanities
<u>110</u>	River and Maritime Transport	Transportation
<u>113</u>	Road transport	Transportation
<u>1</u>	Science Education	Education
<u>56</u>	Shipbuilding	Mechanical Engineering
<u>99</u>	Social security	Social Work
<u>98</u>	Social Work	Social Work
<u>26</u>	Sociology	Social and behavioral science
<u>47</u>	Software Engineering	IT
<u>6</u>	Special education	Education
<u>103</u>	State Border Security	Military Science, National Security, Security of the State Border
<u>102</u>	State Security	Military Science, National Security, Security of the State Border
<u>45</u>	Statistics	Mathematics and statistics
<u>80</u>	Surveying and Land Management	Architecture and building
<u>50</u>	System Analysis	IT
<u>74</u>	Technology Environmental Protection	Production and Technology
<u>70</u>	Telecommunications and Radio	Electronics and Telecommunications
<u>22</u>	Theology	Theology
<u>114</u>	Transportation Technology	Transportation
<u>90</u>	Veterinary Hygiene, Sanitation and Expertise	Veterinary Medicine
<u>89</u>	Veterinary Medicine	Veterinary Medicine
<u>8</u>	Visual Art and Production	Culture and art
<u>87</u>	Water Bioresources and Aquaculture	Agricultural and food science