

Detailed module description

Module name: Sustainable Urban Design			Module code: Partner 07 Module 07 ENG	
Level: bachelor	Credit value	Number of credit ECTS: 6	Durations (semesters): 1	Number of the semester 6 or 7 semester
New module	Replacing module (if necessary)			Education start 09.2013
Author university: MGSU		Coordinator university: MFCY		
Specialty:				
Regulatory preparatory courses:			Regulatory complementary courses:	
Number of hours:		Studying at the another universities (%)		
<p>Module's intentions:</p> <ul style="list-style-type: none"> - students preparation for independent design and planning work in the field of urban design and master planning as well as development of environmental protection strategies for urban territories and regions of the Russian Federation; - studying of <i>concepts, theories</i> and <i>modern planning positions</i> in the field of territorial and spatial organization of settlements and regions; - studying of micro, meso and macro-environment, influencing and changing sustainable living conditions in newly built districts and for urban reconstruction strategies; - studying of urban and regional systems of planning regulations: dangers (unemployment, society aging, social isolation, urbanization, ecosystem destruction) and opportunities (creativity and innovations, possibility of cooperation, efficiency of water - and energy supply, social unity, environmental protection) of future settlements; - studying of the town-planning analysis: scales (intelligence, ingenuity and creativity of the person; collective intelligence of the population of settlements; globalization; the artificial intelligence integrated in the physical environment urban heritage, available to the population) , interdisciplinary analysis (political, legal, institutional, social, cultural, ethical, psychological, emotional, religious, ethnic, ecological, educational and innovative aspects, quality of life, climate change) of settlements developed on objective model of their spatial organization; - enhanced studies of indicators of stability on macro - (settlement), on meso - (administrative district) and on micro level (building site) (availability, energy efficiency) and of citizen (happiness index, wellbeing); - studying of technical systems, sensors, the advanced virtual data files, databases, analytical materials and services for solving of social, economic, ecological, etc. problems, providing sustainable development of settlements and regions; - studying of practical application (intellectual communities, clusters, regions, scientific-intensive activity, innovations and competitive advantages, education, training, brainwork, digital democracy, smart transport, medicine and health care, energy, utilities, environment protection, safety, administrative services to citizens, direct democracy, services for citizens, quality of life, development of the new work and trade possibilities, attraction of talented labor, the knowledge-intensive companies, etc.) at town-planning design and development of administrative planning decisions. <p>Participants of this course are expected to be studying in group discussions and through Internet/Skype (50% of marks depend on the interpersonal communication skills)</p>				
Training results expected				

Knowledge and conception

In case of successful studying of this module the student will be able:

- to explain and apply concepts, theories and sustainable planning positions in the field of territorial and spatial organization and environmental protection of settlements and regions;
- to investigate and to review complex micro and meso - and macro environments according to spatial planning principles for sustainable living conditions in newly built districts and for urban reconstruction strategies;
- in detail assess aspects of risks and opportunities for the developed of future spatial settlements;
- to apply practical and theoretical knowledge on different urban scale and interdisciplinary analysis for urban developed strategy, based on objective criteria for spatial organization;
- to investigate and to review the information of sustainable indicators on macro - (settlement), meso - (urban district) and micro level (building site) (availability, energy efficiency) and of citizen (happiness index, wellbeing).
- to explain and to apply information about satellite systems, sensors, advanced virtual data files, databases, analytical materials and services.
- to apply theoretical and practical knowledge to solve practical urban planning problems of and development of administrative planning solutions.

Core skills and other abilities

After module studying the student will be able:

- to participate in group discussions and presentations by the Internet
- to use the computer training systems
- to show own initiative and act with personal responsibility

Mark calculation

Constituent elements of the mark (Chronologically as the date of examination approaches)				
Type of the mark	Importance	Duration (examination)	Number of words (the written work/thesis)	The requirement of getting "credit" for the component
The mark for interaction and participation of the student (50% of the mark make the interpersonal communication skills)	30%		-	yes x no
Element of the total mark Written group work	70%		6000	yes no x

Methods of teaching

The main material of the module is represented by abstracts of lectures and tasks of the teachers provided on the Moodle platform. They include interactive tasks for an intermediate knowledge

evaluation by teachers or by the student himself (auto-evaluation). The students can use any links to additional materials on the Internet, for example, databases, including ScienceDirect, Scopus, electronic libraries, etc.

The students are taught by means of moderation of discussions at the forum for the purpose of written works preparation. Besides this, for better group cohesion and to balance the students "isolation" during courses of distance learning and approving opportunities and training skills, students will be invited to participate in online discussions, to give feedbacks on the group work (participation in forum discussions is obligatory).

The final mark is graded according to the knowledge of students about practical works in urban design, territorial and spatial master planning and environmental protection strategies for settlements and regions and preparations of written papers of 6000 words, application of critical analysis of territorial spatial environments from different point of view and aspects (see the module purposes). Intermediate group classes are given in on-line mode.

Virtual system of education Moodle:

All students will use the virtual Moodle system in the course of training. Programs use strategy of electronic training for data transmission. The method is based on the following principles:

1. High-quality integrated maintenance of the module, combined with various types of information for an achievement of the module objectives.
2. Communication and works providing for an assessment on the Internet.
3. Teacher online support during the module studying.

Short summary of subjects and contents of the program:

- Introduction to the Module
- Studying of the best practice projects by means of examples and case study exploring
- Concepts, theories and opinions in the field of the territorial and spatial master planning of urban districts and sustainable environments.
- The micro, meso and macro-environment, influencing the changes of sustainable living conditions in newly built districts and for urban reconstruction strategies, including health and safety. Macro environment of settlements are estimated in planning structure of general planning. Meso environments of urban districts are components of general plans of settlement, estimated in the site planning. Meso environments of the building sites are estimated according to general plans.
- Risks and possibilities for the developed of future spatial and sustainable environments for urban settlements: complex health and safety.
- Scales and interdisciplinary analysis of urban territories, developed on objective models for their spatial organization. The models include land objects and territories, urban territory till global scale.
- Sustainable indicators on macro - (settlement), meso - (urban district) and micro level (building site) (availability, energy efficiency) and of citizen (happiness index, wellbeing).
- Satellite systems, sensors, advanced virtual data files, databases, analytical materials and services.

Reference literature and/or other training materials / resources:

The main literature:

- Town-planning code of the Russian Federation. – Publishers «Omega-L», 2008
- Kositskiy Y.V. , Blagovidova N.G Foundation of the theory of planning and building of the

cities. -: «Architecture - C», 2007

- СП 42.1330-2011 Town planning. Planning and building of city and rural settlements -M.: ЦИТП Госстроя РФ, 2011.
- Alekseev U.V., Town-planning foundation of development and reconstruction of a housing estate. M., ACV. YMO 2009, 640
- Alekseev U.V., Development and reconstruction of social and transport infrastructure of the megalopolis. The elevated highways over the railroads. ACV, 328
- Alekseev U.V., Somov G.U., Town-planning of residential areas and complexes. Formation of the housing development at the residential areas. Vol 1. 2010 ACV, 223
- Alekseev U.V., Somov G.U., Town-planning of residential areas and complexes. Development and reconstruction of the residential area. Vol 2. 2010 ACV, 232
- Alekseev U.V., Somov G.U., Shevchenko E.A., Town planning of the noteworthy places. Vol 1. The planning foundation. 2012 ACV, 224
- • Alekseev U.V., Somov G.U., Shevchenko E.A., Town planning of the noteworthy places. Vol 2. Methods of planning. 2012 ACV, 176
- Maloyan G.A., Tha town planning foundation. M., ACV, Min. obr. 2008 РФ, 148
- Maloyan GA, Agglomeration – the problems of own planning. 2010 ACV, 115
- Alekseev U.V., Somov G.U., Town-planning of settlements. Vol 1. Planning evolution. ACV, 2003, 333.
- Alekseev U.V., Kazachinskiy V.P., Bondar V.V. History of architecture, town planning and design. ACV 2004, 445.
- Alekseev U.V., Somov G.U., Organization of the town-planning design. MGSU, 1996, 57.

Recommended (additional) literature:

- Smolyar I.M. The principles of town-planning design and the solutions for development of site plans of the cities in new social and economic conditions. M.: PAACH, 1995.
- Yargina Z.N. "Social foundation of the town-planning», Study guide M., 1982 г.
- The federal law of 27.12.2002 No. 184-ФЗ "Technical regulation"
- The federal law of 30.12.2009 № 384-ФЗ Technical regulations about safety of buildings and constructions".
- Smolyar I.M. Town-planning M., 1996.
- Dontsov D. G., Yushkov N. G. Site plans of the cities: Modern methods of development and realization features: ВолгГАСУ. – Volgograd, 2004, 212.

- Glazychev V. L. Egorov M. M., Ilyin T.V. Urban environment. Technology of development: M.: Publishers Ladya, 1995, 240.
- Yargina Z.N. Town-planning analysis. M., Стройиздат. 1984, 245.

Scientific magazines::

1. "AMIT".
2. "Grado"
3. " Real estate and investments. Legal regulation"
4. Architecture and construction
5. MGSU news
6. TOWNPLANNING
7. Hous construction
8. Theory and practice of social development
Ecology of the urbanized territories

On-line resources:

MicrosoftWindows 7 Professional RUS

MicrosoftOffice 2007 / 2010 Professional RUS

<http://www.rsl.ru/>

<http://www.gpntb.ru/>

<http://www.scopus.com/>

<http://www.scimagojr.com/>

<http://isiwebofknowledge.com/>

<http://webofknowledge.com/>

<http://thomsonreuters.com/>

<http://www.highlycited.com/>

<http://www.loc.gov/>

<http://www.eb.com/>

<http://www.acm.org/dl/>

<http://elibrary.ru/>

<http://lib.mgsu.ru/>

<http://www.gost.ru/>

<http://www.ansi.org/>