## The effect of using modular training in the educational process in Architecture and Environmental Design



Designer is one of the oldest professions on Earth and combines a harmonious synthesis of aesthetics with manufacturability.



In Russia the historical path determined the formation of its own design school. It is in a close relation with classical art, academic art education, engineering and traditional arts and crafts.



Today design requires modernization of training system basing on the principles of professional competence, including the creative and activity components



### ACTIVITY COMPONENTS



The educational program *Design of the architectural environment (DAE)* creates opportunities for implementation of the *invariant-variational* approach to learning and facilitates a more rapid adaptation of specialists to changing conditions of production and to modern life.



Since the end of the 1990s in the post-Soviet society private educational institutions of higher education developed along with state institutions.



State University – public financing





Private University –commercial financing





The Peoples' Friendship University of Russia (PFUR) became the leader of modernization of higher professional education and the creator of new educational technologies among state institutions in the 21st century

## One of the main strategic directions in PFUR is a prognostic approach.

### **OPPORTUNITIES AND**

master's and postgraduate courses with foreign universities

new joint bachelor's education programs

methods of modular programs

an experimental site for modular education

# Modules are formed in structural units of the curriculum in the form of a set of sections from different disciplines grouped according to the topic or within the framework of discipline.

#### Module "Architectural design"

•Fundamentals of architectural design engineering and compositional simulation

•Theory and methodology of architectural design

•Architectural design

•Subject content of the architectural environment

### Module "History and theory"

- •History and theory of painting
- •History and theory of sculpture
- •History and design theory

•Contemporary spatial and plastic arts (painting, sculpture, design, architecture)

•Fundamentals of the theory of environment formation

In the process of modular education, it's necessary to create conditions for the formation of professional competence of students. This is the selection of the content, forms and methods of education and the relationship between teacher and student. The experience of modular training in the educational process of designers has been tested by the authors since 2005 in non-state higher education institutions of Moscow.







### For the effective modular training of future designers of the architectural environment, the head of the direction should form an educational plan.

All disciplines should be grouped to 9 semester modules.

Our proposed method of modular training is based on the Federal State Educational Standard of Russia but has scientific novelty in the system of modular grouping of disciplines.

Let's give an example of the formation of such modules from the training practice in the direction Design of the architectural environment (DAE) of the PFUR Academy of Engineering.



# Disciplines of Propaedeutic cource



From 2<sup>nd</sup> till 9<sup>th</sup> semester, the training modules are based on integrated project assignments within the framework of the discipline Architectural and Design Project, which unites a number of academic disciplines and builds the trajectory of step-by-step professional development and the formation of the necessary

competencies.





# First-year students at work









The teachers of DAE direction in PFUR Engineering Academy organized an Art Workshop where students are trained in terms of group interaction and real implementation of their ideas making their semester projects. For example, the design project of apartment includes the elaboration of interior details: painting, decorative mosaic panels, stained-glass windows, furniture paintings, wall paintings, creating of interior items and manufacture of textiles.

Each of the modules aimed at solving the main task of the semester is based on practical activities and helps to create a design project that meets modern requirements, defining social aspect of future architectural environment designers.

### mosaic and stained glass technique



### The technique of lacquer miniature.









Modular semester teaching proposed by the authors provides students:

creative individualization;

socialization;

competence in technological and economic components;

ability to implement a design project;

adaptation to the labor market based on the results of predictive research;

wide designer profile with variational specializations.

The modular system of education promotes more effective preparation of future designers of the architectural environment.

#### The modular educational system is very effective for creation of the professional competence and helps students to prepare for the conditions of modern market.

The modular process of teaching contributes to the disclosure of the creative potential of teachers for the implementation of various innovations, promising ideas and original new author's programs, using distance learning technologies.

Further development and improvement of new training modules in the education of architectural environment designers promotes communicative rapprochement and cooperation with world design schools.





#### Дизайн - проект сельского клуба в г. Бологое



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#### ЗОНИРОВАНИЕ 2-ГО ЭТАЖА М 1:200

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Аля воснятся тольности и духово розвето насавка необходина с формициро-деоблекования сучаях, однан на вобрат милата управления учается долженуро-деоблекова среда судастарасция соцальные учается учается дата социальной навих современных запов делого долов для дело очара.

Объектон исследования выявля соционанов укреждение для делей сиро (доня Миносерция «Казоронкия, распоноженного в пос. Жаворонки, Ошиндо склот района Москавскай области).

Цель исследования: научно основать и прознанизировать эталы развляят ор витехтуры социальных уреждений и основе благовориличности в Россиии и рубеком, опрявляния необходиные условея для комплексного пододов пре есторовонны алгона коллов, на бале испозы возначена одогодаля алеета систоя

 советни тлитеции совейний раздержати изгранесивний и контецтно толи ин устала иссчетование - одобилабовале хутожесивнийи контецтно толи ин с советнителий совейний.

В результате выполнения напистерской диссертации было разработано конлическое оринтектурноцизайнерские рецение соционного укреждания ди дитей сирот, интерцеров, о также для принягающиго участка, что соответствое

ло вибранной техно. Виясция Для достляжения уколонной цели бых решен ряд ходот:

дана каралеристика понятики : агрикоть кдон иничасердина, зблаготвори

- научены исторические этоты развития социальных укрежданий для дата

росснотено рона содночиная украждений для датей сирота, содног

 разработан континксний подход для решения проблемы востигания з тей скерт.

разработана концепция проектируемого дома имносерция:

предложены ворналы предложений экстериера и интериера;

 изішно кукцие объемно лиднаровочное решение в силинацийся з конескої ситуация;

Все поставление задачи были выполнены в соответствии с этапалии проведени



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### Thank you for attention!