

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE  
NATIONAL TECHNICAL UNIVERSITY OF UKRAINE  
“IGOR SIKORSKY KYIV POLYTECHNIC INSTITUTE”

# **PROVISIONAL REGULATIONS FOR THE ORGANISATION OF EDUCATIONAL PROCESS AT IGOR SIKORSKY KYIV POLYTECHNIC INSTITUTE**

*Approved by Igor Sikorsky Kyiv Polytechnic Institute's Academic Council  
(Minutes № 5 dated May 17<sup>th</sup>, 2017)*

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Regulatory guidance edition

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## 1. General Provisions

The Provisional Regulations for the Organisation of Educational Process at the National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute” (hereinafter referred to as “the Regulations”) is an underlying regulatory document administering the organisation and facilitation of the educational process at the National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute” (hereinafter referred to as “the University” or “Igor Sikorsky Kyiv Polytechnic Institute”).

The Regulation was created on the basis of the following official documents:

- Law of Ukraine “On education” dated September, 5, 2017 № 2145-VIII;
- Law of Ukraine “On higher education” dated July, 1, 2014 № 1556-VII;
- Decrees of the President of Ukraine;
- Resolutions of the Cabinet of Ministers of Ukraine and orders of the Ministry of Education and Science of Ukraine:
  - “On approval of the list of specialties and specializations for the training of higher education students”, Resolution of the Cabinet of Ministers of Ukraine dated April 29, 2015 № 266;
  - “On implementation of License provisions for introduction of training and education activities in higher education establishments”, Resolution of the Cabinet of Ministers of Ukraine dated December, 30, 2015 № 1187;
  - “On approval of the procedure of PhD and D.Sc. candidates’ training in higher education establishments (research establishments)”, Resolution of the Cabinet of Ministers of Ukraine dated March, 23, 2016 № 261;
  - “On scholarship acquisition”, Resolution of the Cabinet of Ministers of Ukraine dated July, 12, 2016 № 882;
  - “On approval of the National Qualifications Framework”, Resolution of the Cabinet of Ministers of Ukraine dated November, 23, 2011 № 1341;
  - “On approval of standard number of students (cadets), postgraduate students (service students), doctors of science, PhDs, attendees, interns, residents physicians for one position of an academic member in state higher education establishments of III<sup>rd</sup> and IV<sup>th</sup> level of accreditation and higher education establishments of postgraduate education”, Resolution of the Cabinet of Ministers of Ukraine dated August, 17, 2002 № 1134;
  - “On approval of the Regulation for procedure of the right for academic mobility enforcement”, Resolution of the Cabinet of Ministers of Ukraine dated August, 12, 2015 № 579;
  - “On approval of license provisions for introduction of training and education activities”, Resolution of the Cabinet of Ministers of Ukraine dated December, 30, 2015 № 1187 (as amended by Resolution of the Cabinet of Ministers of Ukraine dated August, 7, 2002 № 450);
  - “On approval of Regulation for practical training of the students of Ukrainian higher education establishments”, Decree of the Ministry of Education and Science of Ukraine dated April, 8, 1993 № 93;

- “On approval of the Regulation for the procedure of transfer, expulsion and readmission of the students of higher education establishments”, Decree of the Ministry of Education of Ukraine dated July, 15, 1996 № 245;
- “On approval of the Regulation for academic leave of absence and remedial education”, Order of the Ministry of Education of Ukraine and Ministry of Health of Ukraine dated June, 6, 1996 № 191/153;
- “On amendments to Decree of the Ministry of Education and Science of Ukraine dated May, 12, 2015 № 525”, Decree of the Ministry of Education and Science of Ukraine of June, 22, 2016 № 701;
- On approval of document forms for specialist training in higher education establishments”, Decree of the Ministry of Education of Ukraine dated June, 6, 2017 № 794;
- “On approval of Regulation for distance learning”, Decree of the Ministry of Education of Ukraine dated April. 25, 2013 № 466;
- Igor Sikorsky Kyiv Polytechnic Institute’s official documents:
  - Statute of the National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute” (new edition), approved with the Decree of the Ministry of Education and Science of Ukraine dated November, 2, 2016 №1308;
  - Anti-corruption programme of the National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute” approved with the Decree of the University dated May, 13, 2015 № 4-106a;
  - The Code of Honour of the National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute” approved with the Conference of the labour collective dated April, 9, 2015;
  - Internal Rules and Regulations of the National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute” approved with the Decree of the University dated April, 21, 2017 № 7-34;
  - Provisional Regulations for Academic Plagiarism Preventive System in the National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute” approved with the Decree of the University dated May, 21, 2018 № 1-180.

Training and education activities of the University are set to:

- ensure one’s attainment of higher education of a relevant degree in a chosen specialty;
- create conditions for personal development and creative self-expression;
- shape universal human and national values;
- open up equal opportunities of quality education for young people;
- ensure well-balanced combination of education, scientific and innovation activities in an educational process;
- develop and implement innovative pedagogical technologies;
- democratize educational and academic process;
- popularize knowledge among the population, raise their educational and cultural level;
- continuously further education throughout one’s life;
- integrate higher education into the European and international education areas;

- foster responsible attitude towards health and environmental awareness.

The educational process of the University comprises intellectual and creative activities in the field of higher education and science conducted at the University through the system of scientific, methodological and pedagogical activities and aimed at the transfer, acquisition, augmentation and use of knowledge, skills as well as formation of the students' skill set and well-integrated personality.

The aim of the educational process is to realize one's individual potential, develop one's creative abilities, and train skilled professionals able to meet social and personal needs while being competitive on both national and international labour markets.

The educational process is built on the principles of scientificity, humanism, democratism, continuity of education, well-balanced combination of education and scientific activities, relation between theory and practice, non-involvement of any political parties, and other public or religious organisations.

The language of educational process at the University is the official language of Ukraine. The Institute/Faculty's Academic Council can adopt a decision to teach some academic subjects in English or any other foreign language to create conditions for academic mobility; and in this respect it has to ensure students' knowledge of the respective discipline in the official language. Condition for admission of an academic staff member to teaching in a foreign language is an international certificate of or above B2 level or a respective Igor Sikorsky Kyiv Polytechnic Institute certificate.

Special groups may be created for foreigners and stateless persons intending to receive higher education at the expense of a person or entity to teach certain academic subjects in foreign languages. In this respect the Ukrainian language as an academic discipline is ensured to be studied by such persons. At the request of some students conditions may be created for their study of a minority language at the level required for professional activities in the opted field using/involving this language.

Being an autonomous educational establishment the University has the right to:

- develop and implement educational (scientific) programmes within the licensed specialties;
- independently decide on modes of study and forms of organisation of educational process;
- opt for Bachelor's and Master's degree programmes specialization according to the International Standard Classification of Education;
- reassign governmental order between specialties within one specialization;
- reassign licensed number of students to be admitted in different specialties within one specialization;
- decide on standard hours for academic staff's educational and other types of activities;
- reassign number of students per one academic staff member between different specialties within one specialization in consideration of the results of academic staff's scientific activities;
- appoint Heads of Examination Boards;
- confer the title of a Professor, Associate Professor and Senior Researcher in accordance with the applicable procedure;
- conclusively determine acknowledgement, including establishment of equivalence, of Bachelor's, Master's, PhD's, Doctor of Science's degrees and scientific titles of Associate Professor and Professor in the process of

- both admission and education and/or for a research and academic staff member;
- introduce rating system of academic, research and innovative performance of those involved in the educational process;
  - provide complementary educational services and other types of services under the current legislation;
  - independently develop programmes for educational and innovation activities and introduce them;
  - independently introduce specializations, determine their content and programmes of academic subjects;
  - confer higher education degrees upon students successfully assessed after the completion of a relevant degree course;
  - make the final decision on the conferment of scientific degrees upon persons accredited by specialized Academic Councils;
  - establish general education establishments under the agreement with local authorities, institutes, structural units conducting upgrade qualification courses without the assignment of a legal person status or certain legal entity rights under the current legislation;
  - establish educational complexes, educational and research complexes, educational, research and manufacturing complexes, scientific parks as well as be a member of consolidated businesses;
  - locate the University's educational units, educational and research units, educational, research and manufacturing units in enterprises, institutions and organisations;
  - establish incentives, including scholarships for students, PhD students and post-graduate students if funds are available in accordance with the procedure and amount set forth by the current legislation;
  - conduct publishing activities, in particular publishing of textbooks, study guides and research papers, newspapers; and develop its own publishing facilities;
  - conduct educational activities in cooperation with foreign educational establishments under coordinated educational programmes;
  - publish scientific and scientific-methodical journals, informational and analytical digests, reference books etc;
  - publish documents on higher education in the government approved format and in its own format, approved in accordance with the procedure established by law;
  - give academic staff and students the right to use library and informational resources for free, as well as command the services of research, sport and cultural and educational structural units of the university;
  - pick up talented youth under the current legislation and establish admission plans for specialties and specializations in the range of governmental orders and licensed number of students as prescribed by law.



## 2. LEVEL-BASED EDUCATION SYSTEM

The training of specialists is carried out according to the corresponding educational-professional and educational-scientific programmes at Igor Sikorsky Kyiv Polytechnic Institute at the following levels of higher education (LHE):

- the first (Bachelor's degree);
- the second (Master's degree);
- the third (PhD degree).

***The first (Bachelor's) level of higher education*** corresponds to the seventh level of the National Qualifications Framework and involves acquisition of theoretical knowledge and practical skills and skills set sufficient for successful fulfillment of professional duties in the chosen specialty (specialization).

***The second (Master's) level of higher education*** corresponds to the eighth level of the National Qualifications Framework and involves acquisition of in-depth theoretical and / or practical knowledge and practical skills, skills set in the chosen specialty (or specialization), general principles of the methodology of scientific and / or professional activities, other skills sufficient for the effective performance of tasks of an innovative character of the corresponding level of professional activities.

***The third (PhD degree) level of higher education*** corresponds to the ninth level of the National Qualifications Framework. The educational-scientific level of higher education implies the acquisition of theoretical knowledge, skills, skill set sufficient for the production of new ideas, solving complex problems in the field of professional and / or research and innovation activity, mastering the methodology of scientific and pedagogical activities, as well as conducting own scientific research, the results of which have scientific novelty, theoretical and practical significance.

***Bachelor*** is an educational degree obtained at the first level of higher education and awarded by a higher education establishment as a result of the successful completion of a higher education curriculum of an educational professional programme amounting to 180-240 ECTS cr.<sup>1</sup> The volume of the educational-professional programme for obtaining a Bachelor's degree on the basis of the degree of junior specialist is determined by the higher educational establishment.

***Master*** is an educational degree obtained at the second level of higher education and awarded by a higher education establishment (research establishment) as a result of a successful pursuit of a higher education qualification in a relevant educational

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<sup>1</sup>*ECTS credits a unit (in the European Credit Transfer and Accumulation System) measuring the complexity of a certain part of the programme of higher education. The volume of one credit ECTS is 30 academic hours of student's work (taking into account the time for conducting classroom classes, independent work, semester control, practice and performance of qualification work)*

programme. A Master's degree is acquired for an educational-professional or educational-scientific programme. The volume of the educational and professional programme of the Master's training is 90-120 ECTS, volume of educational-scientific programme - 120 ECTS.

**PhD** is an educational and, at the same time, the first degree obtained at the third level of higher education on the basis of a Master's degree. The degree of Doctor of Philosophy is awarded by a specialized academic council of a higher education establishment or a scientific establishment as a result of the successful completion of a relevant educational-scientific programme by student and public defence of a dissertation before a specialized academic council. The volume of the educational component of the educational and scientific programme of the Doctor of Philosophy training is 30-60 ECTS.

Admission to study for higher education at each level of higher education in licensed specialties is carried out on a competitive basis in accordance with the Rules of admission to Igor Sikorsky Kyiv Polytechnic Institute, which are annually approved by the Academic Council of the University and are published on the portal [www.kpi.ua](http://www.kpi.ua).

### 3. MODES OF STUDY

Teaching of students at the university is carried out in the following modes:

- full-time (daytime);
- correspondence (distance learning).

Modes of study can be combined.

**Full-time (daytime) mode** of study is the main mode of obtaining certain higher education degree.

The educational process of the full-time mode of study involves constant contact between academic staff and a student / PhD student, which provides the acquisition of deep systematic knowledge and persistent skills. Students / PhD students of full-time education are obliged to attend training sessions in accordance with the schedule and fulfill the training tasks timely in accordance with (individual) curriculum and work syllabus of credit modules (CM).<sup>2</sup>In accordance with the law, full-time students have the right for scholarship obtainment, privileges for travel in urban transport, dormitory assignment, deferment of military service, etc guaranteed by the state.

**Correspondence education** is a mode of study that combines the features of self-study and full-time education. It is characterized by the stage-by-stage structure. At the first stage, knowledge base and a methodology for self-learning of educational information and skills development (constituent session) are being acquired; at the second stage, a student taking correspondence course processes independently the training material, fulfills the planned individual tasks; and at the third stage, a direct review of the academic performance (verification of individual tasks, defense of course projects, term papers, examinations and tests, final certification, etc.) is carried out. At the same time, these stages are distant from each other in time according to the Academic Calendar.

Correspondence education is a mode of obtaining a certain degree of higher education by persons who work or simultaneously study in another specialty. Students taking correspondence mode have certain privileges that are guaranteed by the state (additional paid leave, tax social benefit, etc.).

**Distance learning** is an option of realization of education by correspondence, which is based on the usage of information and communication technologies that provide the provision and receiving of information. Main features of distance learning are interactive communication in the process of education, enabling students to work independently at educational material, as well as counseling in the process of education.

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<sup>2</sup>*Credit module (ECTS module) is a discipline (part of many semester disciplines) that is studied in a particular semester. The credit module has a certain amount (in ECTS) needed to be achieved to identify (expected) academic performance, and the level of their achievement by a student should be determined in the national / university evaluation system. In the case of a positive assessment, the student receives so-called off-set credits in the ECTS system.*

Studying via correspondence (distance) mode in a particular specialty can be introduced if:

- full-time mode of study is provided for this specialty;
- necessary staff, educational, methodological, utility and technical and informational support of this mode of study is available.

Studying by correspondence (distance) mode of study in a particular specialty is introduced by the decision of the Academic Council of the University upon the recommendation of the Methodological Council of the University.

***Blended learning*** is a modern educational technology that combines classroom work with some elements of distance learning technologies; it is based on new teaching capabilities of information technologies and modern training resources.

The application of the blended learning principles allows:

- to expand the educational opportunities of students by increasing the accessibility and flexibility of education, considering their individual educational needs, as well as the pace and rhythm of learning the material;
- to stimulate the formation of an active student's position: to increase their motivation, independence, social activity, including the process of learning educational material and, consequently, to increase the efficiency of the educational process as a whole;
- to transform the teacher's style: to move from knowledge translation to interactive communication with students, which facilitates the formation of their own knowledge;
- to optimize the amount of academic staff's load by increasing the scope of student's independent work;
- to reduce the cost of one student's training via reducing the amount of classroom work in the training groups and lecture courses with less than the standard number of students (PhD students)<sup>3</sup>.

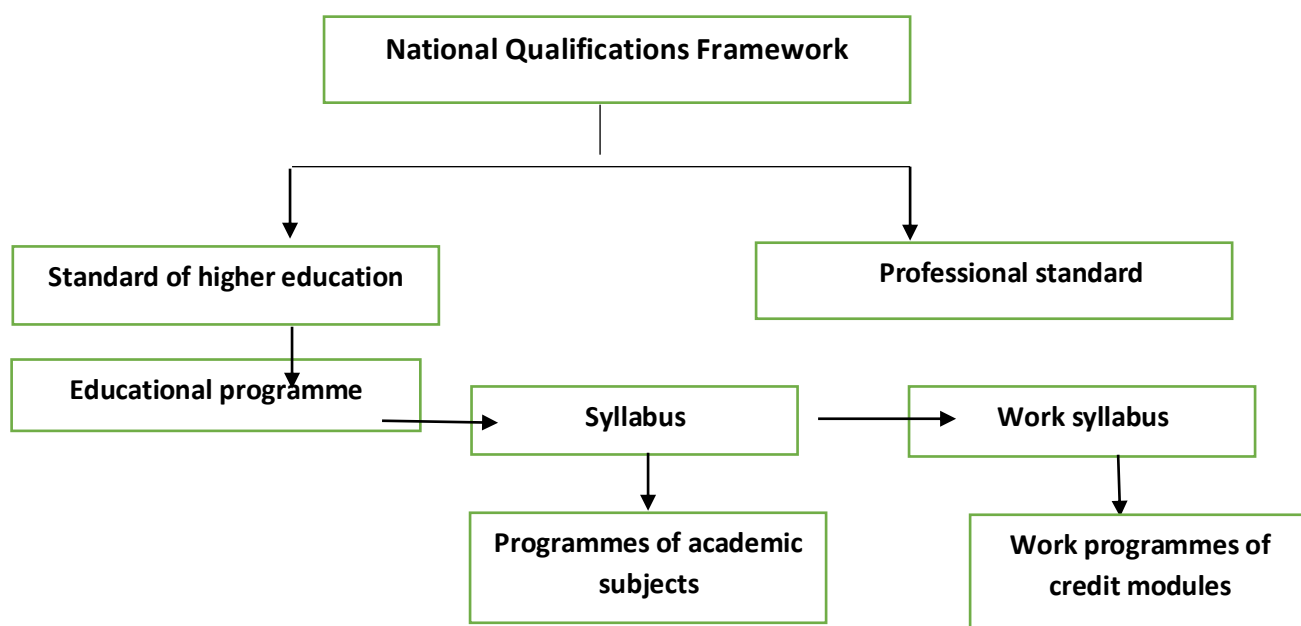
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<sup>3</sup> See Item 4.3 (Table 1) of this Regulation.

## 4. EDUCATIONAL PROCESS PLANNING

### 4.1 Higher Education Standards and Educational Programmes

According to the Law of Ukraine “On higher education” development of educational and learning content can be represented by the following scheme (Fig. 1). Normative documents of the upper part of the scheme (National Qualifications Framework, professional standards and the standards of higher education) shall be developed at the state level and approved by relevant authorities. Documents of the lower part of the scheme shall be developed and approved at the University.



*Fig. 1. The structure of the development of the content of education and training*

An extract from the National Qualifications Framework for the first (Bachelor), Second (Master's) and Third (PhD) Levels of Higher Education is provided in Annex A.

Higher education standards shall be developed for each level of higher education within each specialty in accordance with the National Qualifications Framework. The standards are used to determine and assess the quality of the content and results of educational activities of higher education establishments.

The standards of higher education in each specialty are developed by the Ministry of Education and Science of Ukraine, considering the proposals of sectoral government authorities to which the higher educational establishments belong, and sectoral associations of employers' organizations. The Ministry approves them in agreement with the National Agency for the Quality Assurance of Higher Education.

The higher education standard defines the following requirements for an educational programme:

- the volume of ECTS credits necessary for obtaining a corresponding degree of higher education;
- a list of graduate competencies;
- normative content of the training of higher education graduates, set by the terms of academic performance (knowledge and skills);
- assessment forms of higher education students and degree applicants;
- requirements for the existence of an internal quality assurance system for higher education;
- requirements for professional standards (if any).

The University develops educational programmes in accordance with the standards of higher education.

Educational (educational-professional or educational-scientific) programme is a system of educational components at the corresponding level of higher education within the specialty (specialization), which defines:

- requirements for the level of education of persons who can start training under this programme;
- list of academic disciplines and the logical sequence of their study (structural-logical scheme);
- number of ECTS credits required for this programme;
- expected academic performance (competences, knowledge and skills) that should be acquired by the candidate for a respective degree of higher education.

The educational-professional programme is developed for the first (Bachelor's) level of higher education and the second (Master's) level (practical field).

Educational and scientific programme is developed for the second (Master's) level of higher education (academic field) and for the third (educational-scientific) level of higher education.

The educational programme is used during:

- carrying out a licensed examination for conducting educational activities in a corresponding specialty and LHE, inspection of educational activities in the specialty;
- development of syllabus and practice programmes;
- development of diagnostics means of training quality assurance;
- determining the syllabus in the system of retraining and advanced training;
- professional orientation of higher education graduates.

The educational programme in the part of the list of educational disciplines has two components (courses):

- general training (by specialty);
- professional training (by specialization).

In the educational-professional programme of the first (Bachelor's) level training of higher education, the volume of the course of general training (in specialty) should be not less than 50%. The general training course includes disciplines of natural sciences,

basic disciplines and selective disciplines of social and humanitarian training (10% of the educational programme volume). The course of professional training (by specialization) of up to 50% includes academic disciplines of professional and practical training. At least 25% of the total amount of the programme of training should be academic disciplines of the students' choice.

The educational programme for the second (Master's) higher education level has a course of general training (in the specialty), which contains basic discipline subjects of at least 35%. The course of professional training (by specialization) in the amount of up to 65% contains academic disciplines of professional and practical training. The total amount of selective academic disciplines should be at least 25% of the total amount of the training program.

The educational programme is developed by the project team of the Graduating Department (inter-departmental project group) under the direction of the head of the project team / guarantor of the educational programme in accordance with the recommendations<sup>4</sup>. Educational programmes are considered by the Methodological Council of the University; they are adopted by the Academic Council of the University and approved by the Rector.

In order to ensure correspondence of training content of specialists to the requirements of the labour market (customers), modern production, the achievement of world and national science, technology, the implementation of its own scientific schools and scientific and technical developments, the university may introduce specialization within the scope of licensed specialties. Specializations shall have characteristics that reflect the differences in means (tools, equipment, technology, etc.), products (outgoing and final) or services provided, in terms of activities (production, environmental, social, etc.) in relation to implementation related functions and associated with the existence cycle of the object of activity.

The introduction of a new specialization within a particular specialty is initiated by the Graduating Department, based on the analysis of the state and prospects of the industry, has:

- to identify competencies that are demanded in the labour market but not provided by existing training programmes;
- to formulate the name of specialization on the basis of the abovementioned;
- to receive support from potential customers for specialists' training;
- to provide the justification for the need to introduce a new specialization, listing the list of specialization disciplines<sup>5</sup>, as well as information about their personnel, teaching and methodical, material and technical and informational support;

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<sup>4</sup> *Educational programmes: Recommendations for the development [Text] / Form.* V.P. Holovenkin. - Kyiv: Igor Sikorsky Kyiv Polytechnic Institute, 2018. - 39 p.

<sup>5</sup> *The minimum share of "unique" specialization disciplines should be at least 50% of the cycle of professional training.*

- to develop an educational programme of specialization training (skill set, knowledge, skills, specialization disciplines, structural and logical scheme, etc.);
- to develop a specialization curriculum.

The proposals of a Department on introduction of specialization are approved by the academic council of the Institute / Faculty. In case of proposal approval, the director of the institute / dean of the faculty shall submit an official title to the Rector (first vice Rector) requesting introduction of specialization. An extract from the protocol of the meeting of the academic council / institute / faculty shall be attached.

Further, the question on the introduction of specialization is considered at the meeting of the Methodological Council of the University, to which, in addition to the aforementioned documents, the following are submitted: academic programme of specialization, syllabus, annotations of specialization disciplines, information on staff, both teaching and methodical, utility, technical and informational support of specialization disciplines.

The decision of the Methodological Council of the University is approved by the Academic Council of the University and, on the basis of it the Decree of the Rector on introduction of specialization is issued. The titles of specialties are submitted to the National Agency of Quality Assurance of Higher Education to be included in a single database of higher education establishments' specializations.

The closure of specialization is carried out via Decree of the Rector on the basis of submission of the Director of the Institute / Dean of the Faculty.

## **4.2. Academic Calendar**

Academic Calendar determines the calendar terms of semesters, learning sessions, examination settings, training internship, vacation period for each year of study in a certain educational program; preparation of skilled performance, student final attestation. The chart shows the summary budget table (in weeks).

The schedule of the educational process at the university, based on different forms of training, terms of training and training programs, is developed annually by the university department of education and approved by the first vice-rector. As a rule, 40 weeks of training are planned at the university in the academic year (including examination sittings). The specific length of study is determined by taking into account the specifics of a particular specialty (specialization) each year.

The educational process in the full-time form of training is organized, as a rule, for the semester system. Examination sittings are planned for two in a school year, usually two weeks each.

Vacation period is set twice a year with a total duration of 8-12 weeks. Their terms are determined by the schedule of the educational process for each academic year.



### **4.3. Curricula (Syllabi)**

The curriculum is a normative document of the institution which determines the content of teaching and regulating the organization of educational process of study fields. The curricula are made out for each level of higher education and for each level of higher education (LHE) and mode of education (including training with short or long compared to typical period of training) based on appropriate educational program and educational process schedule. The curriculum determines the enumeration and extent of academic disciplines, the sequence of their study, and distribution of training hours by type of classes per semester, type of semester control and final attestation.

Development of educational and work curricula is one of the most important types of methodological work of scientific and pedagogical workers. Educational and working curricula are developed by working groups of Graduating Departments with the involvement, if necessary, of other departments. The staff of the working groups is determined by the director of the institute / dean of the faculty. The working groups work under the direct supervision of the heads of the respective graduation departments, and the Deputy Director of the Institute / Dean of the Faculty of Educational and Methodological Work coordinates their activities and supervises the fulfillment of the requirements for the curricula.

Curricula and syllabi are compiled according to the designated educational department of the university in electronic forms. Requirements to the structure, content and design of curricula and syllabi are set out in the Methodological Guidelines for the preparation of curricula and syllabi.

Teaching disciplines in the curriculum are divided into cycles:

- general training (majoring in);
- dedicated training (majoring in).

In the curriculum, a full-time form of training in classroom training is allocated with, as a rule, 50% of the total amount of study time in the discipline.

Formation of curricula in electronic form is carried out in the Automatic planning system of educational process “APS EP”.

Curricula and syllabi formation processes are approved by the Academic Council of the University, approved by Board of the Academic Council and affixed by the University seal. Curricula review and their updating is performed at least once in 4 years.

According to Clause 62 of the Law of Ukraine “On Higher Education” the amount of selective educational disciplines must be at least 25% of the total amount of the training program. The selected part of the program includes the academic disciplines of the general (invariant to specialization) training, which take part in the formation of general (social and personal) skill sets, academic disciplines in the acquisition of foreign languages (with a choice of language), as well as educational disciplines of specialization. The number of disciplines offered to students for selection should provide a real and free choice of academic disciplines. The choice of students studying majoring in and level of higher education (LHE), academic disciplines for the next academic year

is conducted in the second semester of the previous academic year on a majoritarian principle using the university's electronic campus. The procedure for selecting students for study disciplines is organized by the deans and corresponding graduate departments. Teaching of the chosen discipline is carried out being subject to the formation of a normative number of flows and training groups. The results of student choice are taken into account when developing working curricula for the next academic year.

In order to improve the content of training, to specify the planning of the educational process, to take into account the regional needs and requirements of the customers of the specialists, to take into account the choice of the students by the disciplines and the consolidation of the disciplines in certain departments, timely changes to the decisions of the Methodological and Academic Councils of the University, annually, until April 1 of the current year curricula are being prepared (corrected) for the next academic year. Curricula are compiled separately for each level of higher education (LHE) and mode of study, including training with reduced, compared to the normative, term of study. Curricula for the first year of bachelor's training are composed of a group of specializations in the specialty of the institute / faculty, and others - in specialties. The work curriculum defines the framework for learning technology from each calendar module by defining the distribution of training time by type of occupation and Student's Independent Work, control activities and individual semester tasks, etc.

For the organization of the educational process, the standard number of students / PhD students in the lecture courses and during group training depending on the level of higher education is established (Table 1).

– *Table 1. Normative number of educational cohorts and groups*

	<i>Bachelor</i>	<i>Master</i>	<i>Ph.D</i>
Lecture courses	50-100	30-60	16-40
Group training	20-30	15-25	8-12

In curricula, a general form of tuition for classroom classes for a normative number of educational cohorts and groups is, as a rule, 50% of the total amount of study time from the credit module. In the case of a smaller number of educational groups (lecture courses) in curricula, the time allocated for these classes by the decision of the graduation department, in agreement with the profile departments providing teaching of certain academic disciplines, may be reduced to the so-called coefficient of reduction of the volume of classroom occupy:

$$K = n/N ,$$

where  $N$  – the smallest value of the normative number of students in the cohort (the educational group);  $n$  – the actual number of students (the educational group). In this case, the technology of mixed learning is realized.

The reduced classroom hours (with respect to the distribution of 50 to 50%) are counted as individual classes  $t_i$  (a separate column in the curriculum). These hours with a coefficient of 0,25 ( $t_{\text{дк}} = 0,25t_i$ ) are included in the teaching load of the teacher.

In case if the number of students / postgraduates in an educational group or lecture course is not more than five, the distance learning technology with appropriate educational and methodological and informational support is used. It is planned to 4-6 hours. Setting lectures, 2 hours. on the set-up (by availability), and the amount of time for conducting laboratory works (computer workshops) and practical (seminar) classes is determined taking into account the coefficient of reduction of the volume of classroom classes, taking into account the normative number for the tables. 1.)

Curricula are approved by the Academic Council of the relevant institute / faculty and approved by the first vice-rector no later than 4 months before the beginning of the academic year.

***Individual Curriculum for Master Degree Students (Annex B)*** is a document for students, studying at a master's degree program. It is developed by a student for each academic year with the participation of a scientific supervisor.

Individual curriculum of the student contains a list of selected academic disciplines / credit modules according to the research direction and the topic of the master's thesis, as well as the academic disciplines of the integrated programs "Master" – "Doctor" of Philosophy". Study disciplines of individual choice are self-assimilated by a student under the direction of a scientific supervisor.

All curricula included in the individual student's curriculum are required for mastering and semester control.

In the individual curriculum a student can be provided with preparation materials for PhD examinations.

The Individual Schedule of the student is approved by the head of the department no later than November ,1 for the first year of study and until September, 15 for the second year of study. Individual Schedules are in duplicate, the first one is kept at the graduation department, and the second one is for a student.

Individual Schedules are posted on the departments' websites. Individual Schedule of students participating in academic mobility programs is a document that establishes the procedure for assimilating credit modules and drawing up control measures based on learning outcomes, taking into account the peculiarities of the student's student preparation program at Igor Sikorsky Kyiv Polytechnic Institute and Academic Mobility Programs.

The general procedure for the preparation of an Individual Schedule is regulated by the Procedure for the registration of an individual curriculum for students participating in academic mobility programs.

#### **4.4. Schedule**

Schedule of Learning Sessions is one of the main documents regulating the organization of the educational process at the university. It consists of curricula based on the actual number of students in lecture courses and group trainings.

The schedule of classes according to the programs of the first (Bachelor) level of education is based on the organization of education in two changes. The syllabus of 1-2

courses of bachelor's degree training is made by the university's teaching department (for some institutes and departments - dean's offices). The following documents are submitted to the training department for drawing up the schedule:

- Excerpts from the curricula (Form D-2) - Dean's Office;
- Excerpts from the distribution of educational load (Form K-6) - Departments.

The schedule of classes of 3-4 courses of preparation of bachelors and the timetable for preparation of masters is prepared at dean's institutes / faculties and approved by the university's academic department.

Examination schedules are made up at dean's institutes / faculties with and approved by the university's academic department.

Schedules of classes and exams are placed on the websites of departments, institutes / faculties.

The schedules of classes of all modes of study are brought to the attention of scientific and pedagogical workers and students not later than 10 days before the beginning of each semester, and examinations - one month before their beginning. Loading of auditorium and laboratory funds is controlled by the training department.

## **5. ORGANIZATIONAL, LEARNING AND TEACHING SUPPORT MATERIALS FOR EDUCATIONAL PROCESS**

The organizational and teaching-and-educational provision of the educational process is an important and necessary condition for the qualitative training of higher education graduates and includes:

- documents of the dean's office and departments;
- documents on specialties and specializations;
- educational and methodological support of educational disciplines.

### **5.1. Dean's Office Documentation**

- the position of the institute / faculty;
- graphs of the educational process for all (applicants for Bachelor, Master, Doctor of Philosophy) and forms of study;
- schedule of classes for all level of higher education (LHE) and forms of training;
- journal of students ' / postgraduate students' progress;
- student / postgraduate student record;
- a book for the issuance of test and examination data on semester control of students / post-graduate students;
- examination and examination data;
- the book of registration of call-certificates of students of correspondence mode of study;
- the book of registration of academic references;
- journals of training groups;
- decree for contingent students (enrollment, deduction, transfer, renewal, etc.);
- plan of work of the institute / faculty in all directions of activity;
- minutes of meetings of the academic council of the institute / faculty;
- decree of the director of the institute / dean of the faculty on the composition of the methodical commission of the institute / faculty;
- the position of the methodical commission;
- the work plan of the methodical commission;
- minutes of the meetings of the methodical council;
- list of supervisors of educational groups;
- minutes of meetings of the scholarship committee;
- copies of documents of students-privileged persons (those who suffered as a result of the Chernobyl catastrophe, orphans, the disabled, students with children, etc.), which confirm the existence of privileges;
- lists of students residing in dormitories of the campus;

- journal of crime prevention among students / graduate students;
- information package of the institute / faculty (Annex B);
- curricula and working schedule of specialties / specializations for all level of higher education (LHE) and educational forms in which educational activities are conducted.

## **5.2. Department's Documentation**

- the position of the department;
- staff list of the department;
- the working plan of the department;
- figures of the educational process for all levels of education (applicants for Bachelor, Master, Doctor of Philosophy) and forms of study;
- data for calculating the amount of the academic work of the department for the current year (Form No. D-1);
- calculation of the amount of the teaching load of the department for the current year by the forms of studies and sources of funding (Form No. K-3);
- a plan for the academic load of scientific and pedagogical staff of the department for the current academic year by sources of funding (Form number K-4);
- a report on the implementation of the academic load of the scientific and pedagogical staff of the department for the previous academic year by sources of funding (Form No. K-5);
- individual work plans of scientific and pedagogical workers (Form No. K-2);
- minutes of the department meetings;
- report on the work of the department for the last academic year;
- report on educational work of scientific and pedagogical workers for the last academic year;
- schedule of advanced training of scientific and pedagogical workers;
- schedule of studies of scientific and pedagogical workers;
- schedule of employment of the laboratories of the department;
- schedule of consultations of scientific and pedagogical workers;
- journal of student attachment of topics (options) of course projects, term papers;
- a journal of safety instructions, instruction during laboratory work (computer workshops);
- individual Master's Curricula \*;
- individual work plans for graduate students \*;
- documents on specialties and specializations (see item 5.3) \*;
- documents of teaching and methodological support of the disciplines of the department (see item 5.4);
- programs (work programs) of practice \*;

- exams programs (if available) and criteria for evaluation on a 100-point scale\*;
- decrees of approval of topics, heads and scientific supervisors of qualifying works for students of higher educational establishment \*;
- training manuals for the implementation of qualifications in specialties / specializations and corresponding level of higher education (LHE), which contain criteria for evaluation on a 100-point scale\*;
- completed by students / postgraduate students in the last academic year, individual semester assignments and course projects, course papers;
- examination control works of students / postgraduate students for the last academic year;
- if necessary, other documents by the decision of the department, for example, schedule of independent work of students (submission of completed individual tasks, course projects, term papers, etc.).

### **5.3. Documentation of Specialties and Specializations**

- standards of higher education in the specialties and levels of higher education, which are carried out educational activities;
- educational programs in the specialties and levels of higher education, under which educational activities are carried out;
- educational and work-related curricula in specialties / specializations, higher education levels and forms of education, in which educational activities are conducted (including short-term training) and explanatory notes to the corresponding curricula;
- curriculum programs in accordance with educational programs.

The documentation on specialty / specialization (except for the standard of higher education and curriculum programs of other departments) is developed by the corresponding graduating departments. The responsibility for the quality and completeness of the documentation in the specialty / specialization rests with the head of the graduation department.

The main documents that specify the content of the training are the curriculum programs and the work schedules of the calendar module. Curriculum programs are developed on the basis of relevant educational programs and curricula. Curriculum programs, including those offered to students for selection must be approved not later than two months before the beginning of the school year. Programs of educational disciplines are developed by the leading scientific and pedagogical staff of the departments of the university, responsibility for their development lies with the heads of departments.

#### **5.4. Learning and Teaching Support Materials for Academic Subjects**

Learning and teaching support materials for academic subjects are developed by the departments which teach these subjects. Responsibility for the development of materials for academic subjects of the department rests with the head of the department.

Learning and teaching support material for academic subjects includes following documents:

- curriculum and work programs of credit modules;
- textbooks in accordance with the curriculum and / or lecture notes;
- recommendations for students on studying the calendar module (Annex D);
- plans of practical and seminar classes;
- teaching aids for laboratory work (laboratory workshops);
- teaching materials for training sessions (tasks for practical classes, multimedia presentations, demonstrations, posters, layouts, models, computer programs, manuals, texts, reference books, standards, albums, circuits, video and audio records, etc., intended for support of the educational process);
- variants of individual semester tasks with the calendar module and recommendations for their implementation (may be part of the recommendations for students on the mastering of calendar module);
- topics of term project/paper on subject matters;
- tutorials for term project/paper;
- diagnostic means for current and semester control of learning outcomes with calendar module and evaluation criteria;
- the task of carrying out complex module test on subject matters and criteria of evaluation of the students` preparation level for accreditation of educational program, monitoring of residual knowledge and skills;
- by the decision of the department – educational-methodical materials of distance learning (automated training complexes: video lectures, electronic textbooks and practical classes, virtual laboratory work, means of test Continuous assessment , methodological recommendations on the features of the organization of distance and mixed learning, etc.) and remote control system training and web resources of subject matters.

Requirements for the structure and execution of academic disciplines and steering documents are provided in the Module Credits' Guidelines for the preparation of curricula and syllabus of credit modules.

***The subject programme syllabus*** (the layout of the program is given in Annex D) defines:

the discipline's purpose in the form of an abilities' system (competences), typical tasks of activity and its place in the system of specialist training (according to the educational program);

an issues of discipline in the form of learning outcomes - knowledge and skills (indicating the level of competence formation);



- the amount/hours (educational time for its assimilation);
- the presentation of the structured content of the discipline;
- the planned learning activities and teaching methods;
- an evaluation of learning outcomes;
- the list of recommended literature, and other educational, methodical and didactic materials.

The curricula are taken into account by the methodical council of the institute / faculty for whose specialties the program of the corresponding academic discipline has been developed in order to ensure the integrity of the educational material, providing the professional orientation of the content of trainee, preventing possible duplication, and taking into account interdisciplinary links. Having adopted the schedule by the methodical commission of the institute/faculty, it is approved by the director of the institute/dean of the faculty (customer).

The general university disciplines' programme of the common (invariant to the specialty) preparation take part in the formation of all (social and personal) skill sets and all educational disciplines of preparation for the programs of the second (master's) and third (PhD) levels of higher education are considered by the Methodical Council of the University. and approved by the first vice-rector.

***The credits' working programme*** is the main methodological document that defines the purpose and objectives, content and technology of learning with credits in a particular form of study for a certain school year. The credits' syllabus is based on the appropriate academic discipline and the working curriculum of the specialty of a certain form of training. Steering document provides scope for learning technologies of each Credit Module determining of the distribution of hours for occupation and independent student's work, control measures and individual semester assignments and etc.

The steering document (the model is provided in Annex E) contains requirements for learning outcomes in the form of specifically formulated goals and objectives of the CM. The aim is determined through the system of abilities (skill sets) that the student must demonstrate after mastering the CM. Tasks of the credit module are presented in the form of a system of expected learning outcomes - knowledge and skills (indicating the level of their formation).

The steering document of CM contains the explanatory content of the educational material dividing into separate training sessions, individual tasks, independent work; it defines forms and means of formative and summative assessment; teaching and methodological support, etc.

In steering document of CM, the sequence and detail (level) degree of separate studying sections and topics, the distribution of hours depends on specialization features, forms of training, etc., it may be changed.

The components of the steering program are an Academic Performance Rating System (APRS) and the Academic Performance Monitoring, the formation of students' knowledge and skills for the current and semester control, as well as the criteria for evaluation.

Steering documents of the CM are discussed annually at the departments' meetings. In case of need, institutes/faculties (customers) may require the approval of steering documents. Steering documents of all CMs, which, according to the syllabus, shall be studied in the next academic year, must be approved not later than two months before the beginning of the academic year. Steering documents are approved (reapproved) by the director of the institute/dean of the faculty of the development department of a syllabus.

Curriculum and academic programmes, and other learning and teaching documents of departments are the intellectual property of the university and may be used by other organizations and institutions only with the permission of Igor Sikorsky Kyiv Polytechnic Institute.

Learning and teaching documentation of educational disciplines is kept in the departments which provide teaching of these disciplines.

The provision of students/postgraduate students with study materials in the discipline<sup>6</sup> is meant the availability of textbooks, study guides, other educational publications in accordance with the list of basic recommended literature in the curriculum and steering documents of the CM at the expense of one copy for five persons of the actual contingent of students or their availability as electronic publications on STL sites, departments, in the university electronic campus, etc. For selective academic disciplines, the use of educational materials is allowed only in electronic form.

All educational materials are stored in PDF-files with scanned signatures.

A complete set of teaching and learning support for the CM, studied in the current semester, must be posted on the electronic campus before the semester.

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<sup>6</sup> technological requirements for teaching and methodological provision of educational activities in the field of higher education ("On approval of licensing conditions for the educational activities of educational institutions", Resolution of the Cabinet of Ministers of Ukraine dated December 30, 2015 No. 1187 (as amended by the Decree of the Cabinet of Ministers of Ukraine dated May 10, 2018). No. 347).

## 6. DIGITALIZATION OF EDUCATIONAL PROCESS

Educational digitalisation is a part of society. It is a complex of measures on the transformation of the educational process on the basis of introduction of informational products, means and technologies in education. It is the most important mechanism for reforming the educational system, its aim is improving the quality, accessibility, and effectiveness of education.

Digitalization of education is a complex, multifaced, resource-intensive process of programs' complex introduction of management by the university; creation of united informational educational space of the university; the use of information technologies in the educational process; development of integrated classes; project activity, etc.

The environment of information has become an integral part of the University's infrastructure management and a set of intelligent services, without which it is impossible today to provide management and training at the university at the current stage of the educational development.

Innovation in university management on the basis of information technology is the key mechanism that allows you to create advantages in a competitive environment. Thus, the main measures in the development of digitalization are the creation of reliable and efficient infrastructure, an introduction of unified methods of access to corporate data, improvement of the manageability of an entire range of information resources, and ensurance of the infrastructure compliance with strategic objectives of university development.

At the university, digitalization of educational activity involves several basic directions.

**1. Administrative management direction** is characterized by the use of IT to optimize management process, automatization of key functions: planning, organizing, controlling; integration of the process of informatisation of management activities with the educational process.

The main goal of integration is to meet the educational needs of students and postgraduate students of the University, to increase the efficiency of the activities of scientific and pedagogical workers and management personnel.

Main tasks of this direction are:

- to ensure efficient use of university web resources in the scientific and educational process;
- to place scientific and educational content of the university in the world of information resources;
- to introduce the modern software for distance and mixed forms of learning;
- to support the system of electronic document flow of the university.

**2. Planning and informational support of the educational process using computer-aid information systems and complexes.**

*Information and telecommunication system "Electronic Campus" provides:*

- informational support of the educational process of the university departments by providing virtual office according to user profiles: a student, a teacher-scientist, a monitor, a methodologist of the department;
- dissemination of information about upcoming events and events within the educational process and automation of the communication process between its participants;
- the use of the closed repository of educational and methodological support of the educational process by students with the possibility of opening access to all those wishing to identify the teaching materials.

The "Electronic Campus" system contains the following software modules:

- Personal data;
- Message. Personal
- Message. Training group;
- Board;
- Work curriculum;
- A load of scientific and pedagogical workers;
- Continuous assessment of knowledge and skills of students;
- Poll;
- Rector's control;
- Monitor.

*The computer-aid information system "Electronic catalog of teaching materials" (<http://directory.kpi.ua>) provides:*

- increasing access to university information resources and increasing level of citation of scientific and methodical publications of the university by expanding access to information resources of the system "electronic campus";
- an improve of the university ranking in the webometrics world.

*The computer-aid information system "Web-pages of scientific and pedagogical workers" ([intellect.kpi.ua](http://intellect.kpi.ua)) provides:*

- expansion of the presence of structural subdivisions of the university in the worlds' scientific and educational space;
- expanding the information capabilities of web sites of departments;
- dissemination of knowledge at the state and world levels on the achievement of scientific and pedagogical workers of the university in scientific and educational work, exchange of experience and promotion of communication.

*Program-technological complex "Personnel accounting" provides:*

- automation of HR management and support of personnel management process;
- management of complex personnel accounting, in particular, accounting of scientific and pedagogical staff of the university.

*The computer-aid Information System "Accounting for graduates employment"* provides:

- the creation of an automated database of organizations, vacancies, student referrals to work, reports on employment of graduates;
- processing of information on contracts with enterprises for employment on the received specialty.

*The computer-aid information system "The rating of the University Academic Staff"* provides:

- automatization of the rating calculation of each university's AS according to the results of its activities in the directions: educational-methodical, scientific-innovative, and organizational-educational work;
- accounting for performance indicators of the AS by types of work sufficient to provide the necessary statistical information on the rating of the AS, departments and institutes/faculties;
- the definition of statistically-based points of evaluation of the work of the AS in certain areas of activity based on the results of the analysis of proposals from academic staff identified trends and current tasks.

*The computer-aided system of planning the educational process "CSP AS"* provides:

- a computer-aided process of formation of educational and working curricula, a formation of corresponding documents for further calculation of a load of AS, the formation of semester plans, the load of departments;
- integration with program modules of the system "Electronic Campus", ACS "High School".

*The computer-aided scheduling system* (rozklad.kpi.ua) provides an automated process for creating a schedule of classes, sessions, consultations, and a teacher's schedule.

*An electronic archive of scientific and educational materials of Igor Sikorsky Kyiv Polytechnic Institute ELAKPI* (ela.kpi.ua) collects, stores, distributes and provides long-term, permanent and reliable Internet access to scientific and educational materials of the faculty, staff, students, postgraduate students and doctoral students of the University.

### **3. Implementation of distance learning.**

Distance learning at Igor Sikorsky Kyiv Polytechnic Institute is introduced to:

- dissemination of access to educational programs of higher education with the use of modern information resources;
- implementation of educational and research resources of the university and enhance learning by updating teaching methods;
- individualization of the learning process in accordance with the needs, features of the opportunities of each student, as well as the constant development of the individual in order to further self-study throughout life.

The distance learning form is implemented on the basis of the Ukrainian Institute of Information Technologies in Education (UIITE).

UIITE provides:

- advanced training of teachers in pedagogical and distance technologies;
- preparation of students for use of information technologies;
- the courses of advanced training of teachers for the development of distance courses;
- conducting workshops for the AS on distance learning technologies;
- teachers' support for the use of new information technologies in the educational process;
- development of distance courses to support full-time and extramural mode of study;
- formation of open educational resources from the best educational disciplines of the university;
- training of young teachers for the educational process using remote technologies;
- the use of distance courses in traditional (mixed learning) and correspondence training;
- preparing young people for admission to the university;
- introduction of remote technologies into the system of professional development of engineering and technical workers;
- introduction of remote technologies into the system of training of the specialties.

The electronic components of the UIITE teaching and learning complexes are located in a piece of single information and educational environment of the university based on the virtual learning environment MOODLE.

## 7. FORMS OF AN ORGANIZATION OF EDUCATIONAL PROCESS

The learning process is realized in the following organizational forms: classes, practices, control measures, independent work.

### 7.1. Training Sessions

The main kinds of academics are lectures, laboratory, practices, seminars, computer workshop, individual training sessions, and consultations.

**Lecture** - the main type of training sessions intended for the presentation of theoretical material.

Typically, a lecture is part of a lecture course that covers basic theoretical material of one or more topics of the subject. Topics and content determined by the training program of lectures credit module (CM).

Lectures are held by lecturers, professors, and associate professors and also by leading scientists and experts who were invited to the lecture. As an exception (for one academic year), lectures can be assigned to a senior teacher with the permission of the director of the institute/dean, where students study. Candidates for lecturers are not included in the staff of teaching, the staff shall be approved by the director of the Institute / Dean of the submission of the relevant heads of departments.

Lecturer in charge lecturing, shall not later than 3 months before the school year to submit folded his Head of Department of the Cabinet work program, a set of individual tasks (if scheduled) and diagnostic tools for semester control.

The lecturer, who will read lectures on this discipline for the first time must submit his lecture notes compiled (author textbook) and conduct a trial lectures to scientific and teaching staff and researchers of the department.

A lecturer is obliged to observe the work program of the Cabinet on the subject and content of the lectures, but are not limited to matters of interpretation of educational material, forms and methods of its presentation.

The lecture is conducted in accordance with equipped premises - classrooms. The lecture can be carried out using equipment with interactive access.

#### ***The following types of lectures:***

- Introductory - lecturer introduces students to the purpose and objectives of the course and its place in the system of training and its relationship with other disciplines of the working program, as well as the distribution of teaching time for occupations, methodical study of the peculiarities of the course of the semester and individual tasks, forms of students' reports and evaluation requirements for knowledge and skills, criteria assessment of learning outcomes, with the principal rating system (PRS).Lecturer acquaints students with textbooks and teaching materials;

During introductory lectures, lecturer introduces students to the purpose and objectives of the course and its place in the system of training and interconnection with other disciplines of the schedule, as well as the distribution of teaching time for occupations, course methodical specifics and individual semester tasks, forms of students' reporting, educational targets, its assessment criteria and to the performance rating system. Additionally, lecturer acquaints students with textbooks and teaching materials;

During informative lectures, lecturer explicates sequentially the content of educational material in accordance with the Credit Module working programme requirements; During problematic lectures, students' learning process approaches to research and exploratory activities with the help of problematization components usage (problem issue, problem tasks and situations, etc.) The achievement of three principal goals are reached due to problematization in the instruction training materials; effective mastering of theoretical knowledge, development of theoretical thinking, forming of cognitive interest regarding to the course content and expert's future professional motivation;

Survey lecture is read at the end of course. Such lecture should reflect the general content of principal theoretical statements that make up scientific and conceptual basis for this section. Survey lecture aims to systematize knowledge at higher level, to pinpoint the students' attention on unresolved and controversial issues;

Summarized lecture is the last one, in which the lecturer sums up common work, the degree of training objectives; it aims to prepare students for semester control, specifies core competencies for skills and knowledge, reminds the assessment criteria of the Credit module mastering knowledge;

According to the content of orientation lecture, extramural students need to provide the overall structure of the Credit module content in short time; it defines the tasks for independent study considers the most difficult questions, gives advice on the usage of training and methodical literature and individual semester tasks performance. Survey and orientation lectures apply also in mixed educational technology.

The lecture consists of the following parts:

- introduction: formulation of lecture aim and tasks, foregrounding of problem, vocational guidance, interconnection with the previous and following lectures, capturing of students' attention;
- the main part: course material presentation, evidences, analysis, coverage of events, facts review, experience demonstration, characteristic of different views on the problem, defining own position, formation of own conclusions, demonstration of connections that relates with practice;
- the final part: basic conclusions formulation, objectives and methodological advices relate to independent students' work organization, answers on questions.
- the main didactic requirements for lectures are:
- high scientific and theoretical level;



- effective perception insurance of training material for students due regard to the students' patterns of psychological and didactic learning;
- formation of a high-leveled students' independence and initiative by organizing their active mental activity during the training process
- high educational impact on students.

During lectures conducting, lecturer should possess:

- Working programme of credit module;
- Syllabus (sketch or augmented design of lectures);
- Means of ensuring visibility (multimedia presentations, posters, models, etc.);
- Academic work register of training groups in which lecturer should make a record of students' presence during lectures.

Laboratory class is a kind of course where students under the guidance of lecturer conduct natural or simulated experiments or researches to gain practical confirmation of some theoretical statements, get practical working experience during the usage of laboratory equipment, computing equipment, measuring equipment, master technique of experimental researches in particular discipline area and how to process results.

The Credit module working programme defines the topic list of laboratory classes. Replacements of laboratory classes by other courses are not allowed.

Laboratory classes are held in specially equipped training labs with equipment usage adapted to the educational process (laboratory models, settings, etc.). Laboratory classes can also be carried out in a real professional environment (in the enterprise, research laboratories, etc.) or in the digital learning laboratories.

Each laboratory class should be ensured appropriate methodological support. Prior to the laboratory classes lecturer must conduct safe training and obtains students' signatures in the relevant register of familiarization with safety regulations during laboratory classes.

For laboratory classes training group is divided into two subgroups. The division is possible when the number of sub-groups is of at least 12 students.

On some disciplines, with due regard to the study of these disciplines and students' life safety, the division of training group into subgroups with lesser number is allowed.

The list of these disciplines is approved by the principal's order on the recommendation of Methodical Consistory. The division of training groups must be specified in the schedule

### ***The structure of the laboratory class:***

Introduction - topic of work, its purpose, objectives, motivation, performance; control conduction of students' preparedness towards a particular laboratory class; briefing on the tasks and possible exclusion of standard errors; briefing on the workplace of every student; verification of students' compliance with the requirements for the consistency and quality of tasks, sanitary, organizational norms and safety

The main part – students’ performance of laboratory tests; realization of intermediate assessment to correct the working results and timely detect errors; demonstration of optimal, rational methods and completion techniques;

The final part - carrying out quality control of tasks; determination of common errors during the laboratory class and means of its prevention; performance evaluation of each student is based on the established criteria; homework delivery for self-preparation for the next laboratory class.

The final score, according to the performance rating system criteria, runs into the rating list and register of laboratory classes and is taken into account into the rating of student learning outcomes together with credit module. Availability of positive assessment that students obtained for all laboratory classes are stated at the working programme and are prerequisites for student’ admission to the semester control stated at the credit module.

During the conducting of laboratory classes the lecturer should posses:

- Credit module working programme;
- Guidelines for laboratory class together with credit module;
- Control tasks (tests) for the control of students’ preparedness for the laboratory class and evaluation criteria;
- Register of safety regulation during the laboratory classes realization;
- Safety instructions in a place that is accessible to the general inspection;
- Academic work register of training groups in which lecturer should make a record of students’ presence and course realization.

**Computer workshop** is the kind of practical lesson in which lecturer organizes students’ individual work on a PC in order to develop practical skills how to use certain membranes, programs, machine languages, etc .

Computer workshop is held in specially equipped computer classes (educational laboratories). Computer workshop must have the appropriate teaching and methodological support, which ensures that students perform theirs planned individual tasks.

The list of topics for computer workshops is determined by the calendar module working programme. It is prohibited to replace computer workshops to other types of disciplines.

Computer Workshop Summary:

Introduction – training subject, its purpose, objectives, motivation, performance; control conducting of students’ readiness to perform specific work; briefing of the tasks and the possible standard errors exclusion;

The main part – students’ performance of practical tasks; realization of intermediate assessment to correct the individual work results and timely detect errors; demonstration of optimal, rational methods and completion techniques;

The final part – carrying out quality control of tasks; determination of common errors during the laboratory class and means of its prevention; student’ evaluation

performance based on the established criteria; homework delivery for self-preparation for the next class.

The final score, according to the performance rating system criteria, runs into the rating list and register of computer workshops and is taken into account into the rating of student learning outcomes together with credit module. Availability of positive assessment that students obtained for all computer workshops are stated at the working programme and are prerequisites for student' admission to semester control stated at the credit module.

During the conducting of computer workshops the lecturer should possesses:

- Credit module working programme;
- Syllabus (tasks and performance techniques) of the computer workshops together with credit module;
- Control tasks (tests) for the control of students' preparedness for the computer workshop and evaluation criteria;
- Safety instructions in a place that is accessible to the general inspection;
- Register of safety regulation during the computer workshops realization;
- Academic work register of training groups in which lecturer should make a record of students' presence and course realization.

**Tutorial** - kinds of course in which students under the guidance of lecturer due to some various tasks, reinforce the theoretical concepts of the course and acquire the skills of its practical application.

The main didactic requirements for tutorials are:

- Provision of professional direction;
- The usage of learning scientific methods and appropriate conceptual construct;
- The disclosure of specific examples of the theory and practice organic unity;
- Insurances of logical sequence of construction classes;
- Rational usage of appropriate didactic teaching methods that shape students' independent creativity.

**Practical classes** are held in classrooms or educational laboratories, equipped with the necessary technical facilities, computers, etc. On some disciplines, by reference to specific features of these subjects and life safety of students the academic group division is allowed in several subgroups. The division is possible when the number of sub-groups of at least 12 students. The list of these disciplines is approved by the principal's order on the recommendation Methodical Consistory. The division of training groups must be specified in the schedule.

The list of topics and content of tutorials is defined by credit module working programme. Academic, who is in charge of tutorials realization, develops didactic software in consultation with the lecturer that conduct disciplines : individual tasks of varying difficulty to solve its by students in the classroom, instructional techniques consideration of individual provisions or theoretical solution of practical tasks, control tasks (tests) to identify the formation of necessary skills, etc .

Tutorial includes knowledge and skills, shared problem statement (task) by lecturer and its discussion with students, solving problems by its discussion, solving control tasks, its review and evaluation according to performance rating system criteria.

The final scores of students that he/she obtained during tutorials run into the rating list and are taken into account into the students' rating jointly with credit module.

During the conducting of tutorials, lecturer should possess:

- Calendar module working programme;
- Guidelines for tutorial;
- Individual tasks of various difficulty;
- Necessary equipment (models, devices, etc.);
- Means of ensuring visibility (multimedia presentations, posters, models, etc.);
- Control tasks (tests) and criteria for its evaluation;
- Academic register of training groups in which lecturer should make a record of students' presence and course realization.

Seminar is a kind of training session in which the lecturer organizes a discussion on pre-defined problems. Students prepare theses of speeches on these problems based on the plan of the seminar.

The main purpose of seminars are providing of practical application of theoretical knowledge in conditions that simulate the shape of the scholars, substantive and social context of this activity. Lecturer should organize and provide scientific debate: the expansion of knowledge that is related to specific problems, search of something new in something already known, transfer of knowledge in new situations and conditions, etc.

The list of seminars topics is determined by the credit module working programme. The seminars are held in lecture halls or classrooms with one academic group.

Modern pedagogy offers a number of seminars types. It is advisable to hold seminars of the most academic disciplines in the form of discussions organized and supervised by a lecturer.

The seminar-discussion is organized as a process of dialogue between students, during which the experience formation of joint participation in discussing and solving theoretical problems and practical thinking of a future specialist.

Seminar-research. Participation in such kind of seminars is preceded by a large student' individual work under the lecturer guidance. During the seminar preparation, student prepares a bibliography on the topic, studies the results of theoretical studies and prepares a report. The results are discussed at a seminar or conference with visual presentation of the material that will be received (schemes, tables, charts, etc.). Partly received material may be included in the thesis.

The problematic seminar requires a very careful preparation from the lecturer' side because he/she must select actual issues on the relevant topic and prepare questions that will ensure students' activation. The seminar is possible only with the careful and thorough preparation from the students' side for consideration of the planned problems of the relevant topic.

A scientific seminar, as a rule, is conducted with undergraduates and graduate students on the topic of their researches. Other lecturers and senior lecturers are invited to participate in such seminars, not only undergraduate and postgraduate students and their scientific supervisors. Scientific seminars are useful for students and graduate students' public presentations; it teaches clearly and concisely presents the results of their researches, to justify answering questions, to defend their point of view. Scientific seminars are also contributed to the expansion of the graduate and undergraduate students' scientific outlook which is the key to successful defense of dissertations.

Lecturer evaluates the performances of students according to the performance rating system criteria, their activity during the topic discussion, ability to formulate and defend their position, etc. Obtained students' scores for individual seminars are taken into account into the rating of student learning outcomes together with the credit module.

During the conducting of seminars, lecturer should possess:

- Calendar module working programme;
- Guidelines for seminar work together with calendar module;
- Means of ensuring visibility (multimedia presentations, posters, models, etc.);
- Criteria evaluation of students' performances;

Academic work register of training groups in which lecturer should make a record of students' presence and course realization.

Individual training is conducted with graduate students on research topics. Individual training sessions are organized on a separate schedule, compiled by the department with taking into account individual schedule.

Individual classes can be a component of mixed learning technology.

Consultation is the type of training session in which students receive answers to specific questions or explanations of particular theoretical positions or their practical usage that are given by an academic staff member (directly or through the web resources of the department, electronic campus, e-mail).

During the semester, consultations are conducted according to the schedule established by the department on the corresponding time calculation, that is planned for consultation with a certain calendar module.

Group consultations are held during the preparation for exams (semester, graduation).

## **7.2. Student's Independent Work**

Student's independent work is the main means of studying the teaching material in time free from classroom activities.

Independent work of the student includes: working out of educational material, preparation for lectures and other types of educational activities, performance of individual tasks, preparation of qualifying work, research work, etc.

The time spent on independent work of the student of full-time education is regulated by the working schedule and is, as a rule, 50% of the total amount of training time devoted to the study of a particular credit module. Taking into account that the

weekly study load of the student is 45 hours, the weekly independent work should be at least 23 hours.

During the time planning of independent work of students one hour is recommended. Student's individual work is needed for each lecture. The specific time that is needed for the different training activities:

- Practical classes - 1-2 hours;
- Laboratory class, computer workshop - 2-3 hours;
- Seminar, module control work - 2-4 hours;
- Credit - 6 hours;
- Exam - 30 hours.

The content of student' independent work on a specific loan module is determined by the credit module working programme, methodological materials, tasks and instructions of the academic staff member.

Independent student work is provided by the system of educational and methodical tools provided by steering documents: textbooks and teaching materials, lecture notes (courses, texts), practicums, collection of exercises, tasks, sets of individual semester assignments, computer-based ICT training complex, methodical recommendations to ISW of credit ECTS module (Annex), etc., which electronic versions should also be available in "Electronic campus". The research and instructional methodology materials should provide an opportunity of self-checking on the part of the student. Students are also recommended to consult with corresponding scientific and professional monographic and periodical literature when dealing with independent student work.

Independent student work of learning material retention may take place in science and technology university library, classrooms, laboratories, computer labs, and at home.

To ensure the proper working conditions of students, if necessary, the work is carried out due to the schedule previously composed by the institute / department, providing the ability of individual students' access to appropriate teaching materials and facilities of general use. Students are informed about the schedule at the beginning of the term.

While organizing ISW with the usage of complex equipment, facilities, and information systems (computer databases, automated design systems, automated training systems, etc), it is necessary to provide students with an opportunity of obtaining the necessary consultations or assistance from academic staff.

Training material provided for student assimilation in the process of individual studying is put to the final control with educational material that was studied during classroom training sessions.

Course project (CP) of an academic discipline is a separate credit ECTS module – a creative individual task, the outcome of which is the development of a new product (device, equipment, process, mechanism, hardware and software, etc., or their separate parts). Course project contains a calculation-explanatory note, drawings and other materials which are determined by the objective of the course project. Course project is done by the student independently under the guidance of academic staff during a

specified period in one semester under the terms of reference based on the knowledge and skills acquired from a given and allied subjects, and materials industrial enterprises and scientific research institutions, patents and so on.

Course paper (CW ) of an academic discipline is a separate credit ECTS module – is an individual task, which involves scientific research and the development of a complex of documents (engineering analysis notes, if necessary - graphs, illustrations), and is a creative or reproductive solution of a specific problem of researcher's interest (devices, equipment and technological processes, mechanisms, hardware and software, or their separate parts, economic, social, linguistic problems, etc.), done by the student independently under the guidance of academic staff in accordance with the objective, on the basis of knowledge and skills acquired from a given and allied subjects.

Course projects and course papers promote the expansion and deepening of theoretical knowledge, experience of practical use, solution of specific problems.

Steering documents and rating system of evaluation should be composed, corresponding to the credit ECTS module “Course project/course paper”. Semester assessment of Course project/Course project is assessment based on the results of project/paper defence.

The theme of course projects/paper should correspond with the objective of academic discipline and be closely associated with the practical needs of a particular profession. The themes of course projects/papers are annually reconsidered, updated and approved on Department Department's meeting.

The aim, objective and procedure of course projects and papers, content and the scope of their separate parts, the nature of the initial data and other requirements are given in the support materials that are composed by the departments in charge.

The number of course projects\papers should not exceed one in a semester. A course project\paper can be added in the curriculum on condition that corresponding practical classes (computer practical classes) on the academic discipline are included to the curriculum. Course projects/papers might be planned on the academic disciplines of no less than 4 credits. The syllabus and curriculum provide students with 45 hours of independent student work in order to do a course project. The term for course paper preparation should not exceed 30 hours of independent student work. Students are given the right to choose the theme of the course project /paper or offer to put forward their own theme. The allocation of course projects /papers themes is registered in the log indicating the date.

The guidance of course projects /papers is carried out by the most qualified academic staff. The defence of course project/paper is performed publicly with a board of members of academic staff, including the course project/paper supervisor.

The results of a course project/paper defence are assessed by the national scale according to the Academic Performance Rating System.

A student who did not submit course project / paper without reasonable excuse in the specified period or did not defend it, is considered as having academic backlog. When

receiving unsatisfactory mark a student, according to the board's decision, either takes another course project /paper theme or works with the same theme once again.

The results of course projects/papers are discussed on the Department Department's meeting.

Course projects/papers are stored at the department for one year, then written off and utilized in the prescribed manner.

The annotations to course projects /papers with the volume not less than 650 characters are uploaded on the department's website in an open access and are stored for at least one year.

Individual assignments of credit modules (abstracts, calculations, graphic works, control test done during the ISW (home control tests), and others.) contribute to a deeper study of theoretical material, improvement of skills to use knowledge to solve relevant practical tasks. Specific types of individual tasks from certain credit ECTS modules are determined by the curriculum. The terms of issuance, preparation and defence of individual tasks are determined by the schedule, composed by the graduating department Department for each semester. Individual tasks are carried out by students independently with the provision of the necessary consultations on specific issues of the academic staff. The marks obtained by students according to the Academic Performance Rating System criteria are taken into account in the student performance rating.

Satisfactory mark received by student for individual tasks is a necessary condition for student admission to semester assessment.

The checked individual works of students are stored at the department for one year, then written off and utilized in the prescribed manner.

Calculation and graphics work (CGW) - individual assignment, which involves the solution of a practical problem with the use of known and (or) independently studied theoretical material. A significant part of this work is presented in the form of graphic material, which is performed in accordance with applicable regulatory requirements.

Calculation works and graphic works (CW, GW) - individual assignments that involve the solution of a practical problem with the use of known, and (or) independently studied theoretical material. The significant part of CW is presented in the form of calculations, which may be accompanied by illustrative material: graphs, vector diagrams, histograms, etc. The significant part of the GW is presented in the form of graphic material which is performed in accordance with applicable regulatory requirements.

The condition of inclusion of CGW (CW, GW) in the curriculum is practical training on the corresponding academic discipline.

According to the curriculum, students are provided with 10-20 hours of ISW in order to do CW or GW.

In one semester the number of CGW (CW, GW) for intramural mode of study students should not exceed the number of 3, and for students of extramural mode of study – 5.



Control tests performed during the ISW (home control tests - HCT) - are individual assignments that involve student self-performance of a practical work based on studied theoretical material. Control tests as well as calculation works may involve some illustrative material.

According to the curriculum, students are provided with 10-20 hours in order to do home control tests.

Abstracts, analytical reviews, translations, etc - are individual assignments, which tends to strengthen and expand students' theoretical knowledge on specific topics academic discipline, develop independent work experience with educational and scientific literature. This form of individual tasks is recommended for humanitarian and socio-economic academic disciplines. In one semester, the number of abstracts (analytical reviews etc.) on different academic disciplines should not exceed the number of 3. According to the curriculum, students are provided with 10-15 hours of ISW in order to prepare an abstract.

Individual assignments are stored at the department for one year, then written off and utilized in the prescribed manner.

### **7.3 Practical Training Period**

Practical training period of students of higher educational establishments is carried out by means of training on enterprises, institutions and organizations according to the agreements signed by the higher educational establishment or its structural units which provide students with practical training.

Practical training period is an inseparable part of students' preparation. The objective of the practical training period is to acquire knowledge of up-to-date methods, forms of organization and equipment on the basis of their academic discipline, to obtain problem-solving skills in real competitive and working environment, to develop systematic knowledge refreshment necessity and ability of practical application of knowledge

The types of practical training vary depending on an academic discipline and its objectives. The following types of practical training are distinguished: training internship, internship (production practices, operational practical training, design practical training, and commercial training), teaching practicum, scientific-research training and pre-graduation practical training.

All the types of practical training are enlisted in the curriculum and syllabus.

Training internship is carried out after a number of laboratory and practical course classes and it functions as a bridge between theoretical knowledge and its practical application. The objective of this type of training is to get student acquainted with the peculiarities of their academic discipline, to obtain essential professional skills due to general and specific academic disciplines. Training internship is the first stage of psychological and professional adaptation of a student in terms of real working environment. Educational practice provides a student with an opportunity to perform

production tasks, to take responsibility for the fulfilled work, to develop participation spirit.

Main objectives of training internship are the following:

- to prepare students to internship;
- to deepen knowledge and to improve students' skills, acquired in the process of education;
- to obtain skills and major professional skills due to the academic discipline of a student;
- to get student acquainted with organization and structure of enterprises institutions and the peculiarities of their future jobs;
- to motivate students;
- to foster awareness of professional skills by means of students' involvement to a real working conditions.

One of the objectives of training internship may be to obtain work qualifications in a field that corresponds to the academic discipline.

**Training internship** can be conducted in laboratories, workshops, as well as in enterprises. Comprehensive training internship is usually carried out in working conditions. Subject area training shows some differences since students' practical tasks involve the usage of knowledge of several academic disciplines. When performing practical tasks students acquire essential professional skills, improve their ability to use theoretical knowledge in practical conditions. Training internship is supervised by a member of academic staff or practical training period supervisor.

**Internship** (production practices, operational practical training, design practical training, and commercial training) is conducted on the 3 year of studying. In terms of professional activity internship is related to training internship since students work on real workplaces in working environment. But in terms of the work content, internship is considered to be a middle stage that functions as a key element for pre-graduation practical training. Student performs the duties of a middle manager.

All types of internship should be conducted on high-tech manufacturing enterprises, design agencies or other organizations with up-to-date equipment and organizational processes. The objective of internship is to deepen theoretical skills, acquired by students in the process of striding, get students acquainted with industrial processes, production processes, elaborate design documentation, improve working skills, gaining working experience, develop professional way of thinking, develop organizational skills, and collect material for the further course projects or course papers.

Main objectives of internship are the following:

- to get students acquainted with production organisation and processes;
- to introduce rights and duties of a profession and to perform the duties of a corresponding profession;
- to get to know the quality assurance procedure on an enterprise and its organization of safety conditions;

- to find out about production organization and planning processes: business-plan, financial plan, modes of distribution, its competitiveness;
- to get students acquainted with ecological safety measures.

Main objectives of production practice are the following:

- to get students acquainted with organization and management of a department;
- to get students acquainted with existing standards, specification requirements, instructions on production organization;
- to get students acquainted with basic production processes;
- to get students acquainted with operation procedure and maintenance of measuring equipment and facilities;
- to get students acquainted with the theory of controlling measuring equipment operation for technological processes assessment
- to get students acquainted with ecological safety measures.

The main objective of operational practical training is to gain experience of equipment operation organization, to deepen theoretical knowledge, to get acquainted with the practical side of all the equipment usage, to learn the safety measures guidelines, to learn how to repair, check, adjust and operate the equipment, to get informed about technical and economical indices of the equipment, to get acquainted with production organisation and processes, to deal with regulations and decrees.

During the practical training period students should make themselves aware of the Practical training subject matter of specialists, engaged in engineering activities of equipment maintenance; students should acquire post-qualification experience in the most important areas of the practice object and get full picture (understanding) of operational process, methods of equipment adjustment and verification, rules for compiling schedules for equipment maintenance and repairs, design and handover of equipment for repair, as well as acceptance after repair; troubleshooting methods, methods for organizing and collecting statistical information, operating modes of technical devices and reliability indicators, etc.

During operational practical training period, a student should be aware of:

- organising and management of subdivision activities;
- operating standards, technical specifications, regulations and instructions for equipment operation, test programs, paper work;
- operation regulations and maintenance of technical systems, measuring devices and other equipment;
- environmental compatibility issues and life safety.

The main purpose of design practical training period is to acquire design experience on engineering positions at design departments of enterprises.

The tasks of design practical training are:

- sustaining and broadening of theoretical knowledge, obtained by students at the university while studying vocational disciplines;

- familiarization with the scope of the main work and researches, carried out at the enterprise or organization of practice placement;
- gaining experience of independent work at the workplace;
- acquirement of the advanced processes of technical systems and devices design in working conditions;
- student preparation for making independent decisions in design tasks at production site;
- collection of necessary materials for the course projects implementation;
- formation of professional competences, related to future professional activities.

After design practical training period a student should know:

- the main stages of design process and production;
- main methods of technical systems design as well as their elements;
- the essence of standard design procedures;
- organization of technical systems design process;
- the interaction structure of departments and services during design process and production;
- the methods of analysis and solution of design engineering tasks.

***Scientific-research practical training period*** is one of the elements of scientific-research training programmes for Masters and Doctors of Philosophy. The aim of the research practice is systematization, broadening and sustaining of professional knowledge, skills development to set goals, analyze the results and draw conclusions, gain and develop the experience of independent research work.

The main task is to formulate the experience in topical scientific problem studying, as well as to select the necessary materials for the dissertation implementation.

During the scientific-research practical training period student / graduate student:

1. should dwell upon:

- patent and literature references concerning the topic worked on, in order to use them during qualification work performance;
- research methods and experimental work performance;
- maintenance instructions of research equipment;
- analysis and processing methods of experimental data;
- information technologies in scientific studies, programme products related to the professional activities;
- paperwork execution requirements;

2. should perform:

- analysis, systematization and generalization of scientific-technical information on the topic of research;
- theoretical or experimental research under set tasks;
- probability analysis of the obtained results;
- comparison of research results of the development object with domestic and foreign analogues;

- analysis of scientific and practical information of the obtained research results;
- analysis of scientific and practical relevance of the research results.

The choice of the practice placement during scientific-research practical training period and practical training subject matter are determined by the need to familiarize students / postgraduates with the enterprises and organizations activities, research establishments that carry out work and conduct research on the chosen topic.

Scientific-research practical training is carried out in the form of a real research project performed by a student / postgraduate under approved topic of scientific research and dissertation topic, taking into account the subdivisions interests and capabilities in which it is conducted. The practical training is conducted in accordance with a program of scientific-research practice and an individual programme of practical training, compiled by a student / postgraduate together with a scientific supervisor. Scientific-research practical training is conducted by a scientific supervisor.

During practice training period students/ postgraduates work on the dissertation is logically and sequentially organized, including the following stages: topic choosing, research problem elucidation, defining the object and the subject of the study; formulating of the research purpose and tasks; theoretical analysis of literature; selecting of necessary sources (patent materials, scientific reports, technical documentation, etc.); bibliography compilation; operational hypothesis formulation; choosing of research practical training base; research methods defining; conducting of the experiment; experimental data analysis; formalizing of the research results.

Research practical training gives students/postgraduates following anticipated competencies:

- knowledge of the main methodology provisions of the scientific research and the ability to apply them while working on the topic of the Master's thesis;
- ability to use modern methods of collecting, analyzing and processing scientific information;
- ability to present scientific knowledge on the research problem in the form of reports and reports publication.

Teaching practical training period is an integral part of scientific-research training programs for Masters and Doctors of Philosophy. It is conducted in the semester after students / postgraduates mastering a certain pedagogical discipline.

During teaching practical training period, the knowledge of Masters and postgraduate students on tertiary teaching is being deepened, scientific and methodological analysis skills of educational programs of separate academic disciplines are being developed and sustained; the ability to make the outline of classes, to give different kinds of in-class activities, to evaluate the results of one's own activities and to improve communicative constituent of teaching activities appears.

Teaching practical training, using acquired theoretical basis, allows to develop students' and post-graduate students' creativity, initiative, activism, independence,

aspiration for constant self-improvement, to develop and implement in their educational process their own teaching methods and to use innovative pedagogical techniques, etc.

The purpose of teaching practical training is to involve students and post-graduate students in independent creative teaching activities, to form a system of pedagogical skills in conditions optimally close to real work in higher educational establishments; to master the knowledge and skills for organizing the process of studying academic disciplines by students, which are receiving training in the corresponding specialities.

The main tasks of teaching practical training are:

- encouragement of university teacher developing of professionally significant qualities;
- consolidation, expansion and deepening of theoretical pedagogical knowledge of students and postgraduates on the basis of their use in a real pedagogical process;
- knowledge realization about modern methods and forms of teaching activities through conducting in-class activities;
- mastering of conducting analysis methods of own teaching activities, professional competences and colleague's performance;
- gaining the independent organization experience of the educational process in the training group;
- -familiarization with innovative technologies, working methods and forms in higher educational establishments;
- development and self-realization of creative abilities;
- self-examination and self-improvement skill mastering;
- the formation of moralities, communication ethics and self-improvement desire.

Teaching practical training is individually mentored by scientific supervisor.

During teaching practical training period student / postgraduate should:

- get acquainted with the educational, organizational and methodological basis of the educational process at the Graduate Department;
- visit practical classes of their scientific supervisor and leading teachers of the Department several times;
- prepare and be ready to conduct one lecture and two practical classes, one laboratory work (computer workshop) and one pedagogical work for the students to give a demonstration of innovative methods and forms of educational work and implementation a personally-oriented approach.

Pre-graduation practical training period is the final practical training stage in the of students studying at Bachelor's and Master's degree. Before passing pre-graduation practical training period, the student should receive qualifying paper topic in order to sustain and deepen the knowledge of the academic discipline during practical training period, to collect the actual material and carry out the necessary research on the qualifying paper topic.

The crucial tasks of pre-graduation practical training period are:

- students' practical training for independent work in corresponding specialists' positions, deepening and sustaining of theoretical knowledge and skills in vocational disciplines, obtaining work experience with actual material referring to enterprise production activity and using it for the qualifying paper performance;
- formation of vocational work skills and acquisition of organizational work experience in a team;
- acquaintance with enterprise advanced equipment, technologies, labour management and production economics;
- material collection and preparation for qualifying paper.

Head of Department is responsible for organizing, conducting and mentoring the practical training period.

Students' practical training is conducted at modern enterprises and organizations (exceptionally - at the university Departments) under the organizational and methodological mentoring of Department academic staff and the enterprise (organization) specialist.

Practical training subject matter and technology is determined by the practical training programme, which is developed up by the Department (Departments) and approved by the Director of the Institute / Dean of the Faculty. The types and forms of control are determined by the practical training programme in order to check the necessary skills well-formedness, student report requirements of the practical training programme and individual tasks implementation. The practical training report is defended by a student in front of committee, appointed by the Head of the Department. A student who has not completed practical training programme for valid reasons may be allowed to conduct practical training for a second time subject to the conditions specified by the institute / faculty. A student who was received a negative assessment for practical training is sent down from the university.

The results of each practical training period are discussed at Department's meeting, and general conclusions of the practical training are drawn on the Academic Councils of the institutes / faculties at least once during the academic year.

While organizing and conducting the practical training period, the following documentation is kept:

- agreement with enterprises on the students practical training period;
- order of the university on students' job placement and supervisors' appointment during practical training period;
- steering documents for practical training period;
- practice record books and individual assignments for students to conduct the practical training;
- attendance record of students' practical training;
- schedules for supervisor's visiting the practical training place in order to mentor students' work;
- student's reports on the practical training programme implementation;

- information on the practical training credit.

Students' reports are stored in the Department for one year, then they are written off and disposed in accordance with the procedures laid down. Student's reports annotations about the practical training (except for closed topics) of at least 650 symbols are stored for at least one year and available for viewing.

Methodical guidelines on practical training (approved by the Methodological Council of the University on May 24, 2018, protocol No. 8) regularize the organization of conducting and summarizing of the students' practical training period.



## **8. QUALITY ASSURANCE SYSTEM OF EDUCATIONAL ACTIVITIES**

### **8.1. Standards of Educational Activities**

Standards of Educational Activities are a set of minimum requirements for staff, methodological, material-and-technical, information provision of the educational process in a higher education establishment.

Standards of Educational Activities are developed for each Level of Higher Education (LHE) within each specialty and are compulsory for all higher education establishments irrespective of their form ownership and subordination, as well for scientific and research institutions providing education to proceed Doctor of Philosophy and Doctors of Science Degrees.

Standards of Educational Activities are developed and approved by the Ministry of Science and Education of Ukraine with the concurrence of the National Agency for Higher Education Quality Assurance.

Meeting the requirements of the Standards of Educational Activities is the basis for the educational activities licensing and educational programmes accreditation.

### **8.2. University's Quality Assurance System**

European Standards of Education Quality Assurance provide a three-level quality assurance system:

- internal quality assurance in higher education establishments;
- external quality assurance in higher education establishments;
- quality assurance by external quality assurance agencies activities.

The basis of the proposed Standards and Guidelines for the internal quality assurance in higher education establishments is the following basic principles:

- universities take primary responsibility for the quality of provided educational services and how this quality is ensured;
- higher education establishment autonomy balanced with the awareness of the serious responsibility predetermined by the autonomy;
- quality assurance processes should be implemented to improve the higher education establishment efficiency;
- quality culture formation in higher education establishments should be entirely supported;
- development of procedures whereby higher education establishments can demonstrate their openness and accountability;
- universities should demonstrate their quality both nationally and internationally.

European Standards and Guidelines include:

1. University policy identification and related procedures that shall ensure the quality and standards of educational programmes and diplomas.

Strategies for continuous improvement in quality should be developed and implemented. The strategies, policies and procedures should be of official status and be accessible to the public, involving all members of the educational process, students (student organizations) and others who want to be engaged in the quality assurance process.

Quality assurance policy statement shall include:

- relation between teaching and scientific-research activities at the establishment;
- establishment's strategies concerning quality and standards of education;
- quality assurance system organizing;
- responsibility of Departments, Institutes/Faculties and other subdivisions and persons for quality assurance;
- ways of policy implementation, its monitoring and reviewing.

2. Educational training programmes authorization, monitoring and reviewing including:

- diligence in educational programmes development with well-defined anticipated academic results to ensure their relevance and demand;
- formal programme approval procedures by an institutional body that does not conduct training under this programme;
- appropriate training resources availability;
- students' achievements monitoring;
- regular programmes reviewing (with external experts' participation);
- cooperation with employers and labour market representatives;
- participation of students in quality assurance activities.

3. Students' assessment involving the sequential use of promulgated criteria, rules and procedures.

Students' assessment procedures should meet the following requirements:

- ability to determine to what extent anticipated academic results and other programme objectives have been achieved;
- ensuring the diagnosticity of all types of control;
- promulgation of methods for evaluating the anticipated academic results and clear assessment criteria;
- publicly available publications of students' learning activities materials at the University's web resources;
- clear regulation of all possible situations in the process of conducting student assessment;
- appropriate moderator qualifications;
- existence of administrative inspection that shall control the accuracy of the established procedures implementation.

4. Academic staff quality ensuring providing availability of certain procedures and criteria in educational establishments which shall ensure the appropriate qualification and high professional level of academic staff. These procedures should be implemented for

the academic staff selection and appointment of the candidates meeting the specified criteria. Academic staff will have access to information on their work evaluation. Conditions and opportunities for professional skills improvement and professional development of academic staff must be created as well as an atmosphere in which their professional qualities are appreciated.

- monitoring students' achievements and progress;
- regular review of programs (with the participation of external experts);
- regular communication with employers and representatives of the labor market;
- participation of students in quality assurance activities.

5. The availability of academic resources and students support must be sufficient and correspond to the programs offered by the establishment and respond to the students' feedback.

6. The information system availability of establishment. The establishment should ensure that it collects, analyzes and uses relevant information for the effective management of training programs and other activities. The information system that ensures quality monitoring should reflect:

- students' achievements and indicators of their success;
- opportunities for university graduates to find work and employment results;
- satisfaction of students with training programs;
- efficient work of academic staff;
- characteristics of the students and academic staff;
- available educational resources;
- key indicators of higher educational establishment activities.

7. Publicity of information, which provides regular publication of the most recent, impartial and objective information, both quantitative and qualitative, regarding to the proposed training programs, expected results, qualifications, instruction procedures, training and evaluation of results, etc..

According to Article 16 of the Law of Ukraine «About Higher Education» the system of providing higher education establishments with quality of educational activities and the quality of higher education (internal quality assurance system) provides following procedures and measures:

- definition of principles and procedures for ensuring the quality of establishment;
- monitoring and periodical review of educational programs;
- annual assessment of students and academic staff at establishments, regular publication of the assessment results on the official web site of the establishment, also all information is on product literature centre;
- providing further training for scientific and academic staff;

- ensuring the availability of necessary resources for the organization of educational process, including Student's Independent Work, for all academic programs;
- ensuring the availability of information systems for the effective management of the educational process;
- ensuring publicity of information about educational programs, degrees of establishment and qualifications;
- providing an effective system for preventing and detecting academic crib in scientific works of academic staff or students at establishments.

The internal quality assurance system submitted by the establishment is evaluated by the National Agency for the Quality Assurance of Higher Education or the independent institutions accredited for the assessment and quality assurance of higher education on the subject of its compliance with the requirements for the system of quality assurance in higher education approved by the National Agency for the Quality Assurance of Higher Education.

The establishment quality assurance system includes the following components:

- competitive selection of students for study programs at all levels of the establishment;
- conducting incoming rector's control of the quality of residual knowledge in mathematics and physics for the first year students of the establishment
- conducting an interim appraisal of students at the 8th and 14th week of semester for all credit modules;
- semester control;
- analysis of the incoming rector's examination results, midterm assessment and semester control at the Departments and academic councils of the institutes / faculties;
- graduate student certification;
- analysis of graduation certificate results at graduate Departments and academic councils of institutes / faculties;
- statistical analysis of the results of all types of control with discussion at the meeting of the Methodological Council of the University;
- examination of manuscripts and textbooks by review commissions of institutes / faculties and expert council on educational publications;
- definition of academic potential of graduation Departments and allocation of quotas for master's degree in accordance with this potential;
- analysis of students admission results to the programs of master's training and preparation to quality control;
- annual rector quality control of residual knowledge of 1-4 year students covering the following academic disciplines: advanced mathematics, IT, foreign language, professional-oriented educational disciplines, vocational training disciplines, as well as selective expert assessment of defended qualifying research papers;

- determination of the annual rating of each scientist and academic staff and introduction of personnel Departments management taking into account these ratings;
- approved requirements for Departments and level of scientific and professional activity of scientific and academic staff.

All of the abovementioned components were incorporated into a comprehensive university quality assurance system. The following principles constitute the basis of this system:

- taking into account the results of the main activities;
- many indicators should form the «external picture» of the subdivision and the university;
- the usage of weighted coefficients to determine the significance of every feature;
- the usage of objective and measurable indicators of performance;
- the usage of indicators referred to official documents for licensing educational activities and the status of research institution of higher education;
- the usage of indicators that do not require Departments to submit additional information other than official reporting.

According to the basic principles there are four components on which the evaluation of performance units (faculties and institutes / faculties) is carried out;

- training of specialists;
- scientific and academic potential;
- scientific and innovative activity;
- international activity.

Every components of the rating is characterized by a system of separate indicators with certain weighted coefficients. All figures are calculated with the help of indicators provided by the relevant Departments of the university on the basis of the annual reports of Departments on their activities as well as information from the individual rating of teaching staff, providing AIS “SPW rating” with results Rector quality control of materials Institute for Monitoring Educational Quality and materials Scientific Research Center for Applied Sociology «Socioplus» external evaluation of graduates of the University in certain specialties.

### **8.3. Integration of academic and research-based actives**

The quality of the educational process at the establishment is directly determined by the interaction effectiveness of education and science.

The main aim of the Integration of academic and research-based actives is to ensure the innovative development of society and the formation of knowledge economy and new generation of specialists with higher education.

Integration of academic and research-based actives at the university is provided by:

- balanced combination of education content and programmes of scientific activity;
- creation of powerful research centers in the structure of the establishments and branches of the Departments together with research institutions;
- the development of various forms of scientific cooperation (including international) with institutions and organizations that are not included to the system of higher education, with the scientific institutes of the Ukraine Academy of Sciences for the implementation of scientific research and development;
- the creation of higher education standards, textbooks, manuals and other teaching materials, taking into account the latest advances in science, technology and technology;
- introduction of new academic disciplines on the basis of scientific research;
- formation of the scientific and informational base of NTL, which is based on modern information technologies.
- mandatory participation of scientific and academic staff in research works;
- involvement of research associates of institutions to educational process;
- involvement of students into scientific research;
- planning of research work and its implementation within the main working hours for scientific and academic staff and students;
- regulation of the academic staff's load in order to create conditions for the effective implementation of scientific research;
- annual definition of scientific achievements of SPW in such nominations as «professor –researcher» and «Young professor-researcher» with the aim to increase official salary of winners;
- formation of the scientific researches subjects of postgraduate students on the actual problems of the economy and development of the Ukraine society;
- engaging motivated undergraduate students to participate in scientific and innovative work, in scientific and technical classes, centers and projects;
- involving all students of the master's degree in scientific and innovative activities in accordance with the actual scientific topics of graduating department Departments of the establishment;
- introduction of individual curricula for students who are actively involved in research work;
- organization of educational-scientific, scientific-methodical seminars, conferences, Olympiads;
- execution of course projects, term papers, thesis, qualifying works on the results of scientific research, implementation of sections with the development of startup projects, etc.;
- students' practice passing in leading scientific, research institutions, innovative enterprises;
- holding Sikorsky Challenge start-up competition;

- development of the motivation research work i.e. the allocation of additional loans and their consideration in determining students' rating, honors, scholarships, grants, scholarly missions, postgraduate studies, doctoral studies. Taking into account students' achievements in research work during their entrance to the master's degree and post graduate.

## **8.4 Methodological Support Materials of Educational Process Quality Assurance**

An important component of the quality supply system is methodological work, which is carried out at all levels: university - institute / faculty - Department. Coordination of methodical work is carried out by the educational-methodical Department and the methodological council of the establishment. The general management of methodical work at the establishment is carried out by the first vice-rector. At the institutes / at the faculties, the deputy directors /deans are in charge of the methodical work, they are also the Departmentmen of the methodical commission of the institutes / faculties.

Principal forms of methodological work at the establishment are:

- scientific and methodological conferences;
- department Department's meeting of the establishment, methodical commissions of institutes / faculties;
- teaching and methodical meetings;
- demonstrative and open training sessions;
- lectures connected with teaching methodology;
- control of training sessions;
- Department methodical seminars;
- discussion at the department Department's meeting on the students' training results (intermediate student attestation and semester control, course projects and term papers, other individual semester tasks, results of practice and graduation of students, etc.);
- improvement of the educational process and its teaching and methodological support;
- advanced training of scientific and academic staff;
- scientific and academic research, publications regarding scientific-methodological conferences and articles in professional journals.

## **8.5. Academic Performance Monitoring**

Control measures are necessary elements of the quality supply system. They determine the correspondence of acquired knowledge, skills and capacities, developed competences of students with the requirements of higher education standards and provide timely correction of the educational process.

The main task of academic activity monitoring is to obtain information about its properties and results for effective management of the activity, optimization as well as achievement of high quality of students' learning. Thus, the main functions of the educational monitoring process are diagnostic and corrective.

In addition, the monitoring aims can be:

- definition of successful students' training for planning the next stages of the educational process;
- identification of gaps in the training of individual students in order to optimize the process of individual learning and student motivation;
- semester control determines the degree of students' acquisition of learning content in order to transfer to the next cycle of training;
- graduation of the students, means that the actual establishment correspondence of the level training student to the requirements of higher education standards, the award students according to the corresponding degree of higher education and the award of qualifications and the issuance of the corresponding diploma.

In all of the above cases, control and diagnostic and correction functions are implemented.

During the monitoring educational process, other functions can be fulfilled: educational, motivational-stimulating, organizing and disciplinal, etc.

The educational function of monitoring consists in activating the work of students in learning the educational material, encouraging of revision and systematization of educational material, in-depth study and improvement the level of training. This function contributes to self-control, activates the activities of every student, also it ensures the consolidation of educational material.

The morale building function involves the formation of volitional, moral and other positive qualities of an individual: the ability to work responsibly and concentrated, to use methods of self-assessment, activity and precision, etc. The fact of availability of the control system contributes to discipline, arrangement and direction of students' activities. This is achieved through systematic work on identifying strengths and weaknesses in the development of the student's personality, identifying gaps in knowledge and speeding up their elimination. The main role in this case is given to the formation of students' creative attitude to the classes; desire to learn at full capacity and to develop their abilities.

The organizing function ensures regularity and sustainability of students' academic study, activates their independent work. The organizing function begins to operate before the final control from the beginning of the training, when academic staff gives the set-up and puts forward the requirements that will be put in particular kind of control.

Motivational-stimulating function increases the inspiration of students to improve their learning outcomes, assessment of the discipline, contributes to the development of competition in education.

In the learning process, the following types of control are used: input, continuous, mid, summary and control of knowledge preservation.



***Input control*** starts with a new academic discipline and is carried out at the beginning of education process in order to determine the readiness of students to master it properly. The control is conducted with the help of diagnostics methods for the educational disciplines that form a new educational discipline.

The results of the control are analyzed at the Department meetings departments altogether with the professors who conducted classes on the previous academic disciplines. According to the results of the introductory control, special measures are developed to provide individual assistance to students; to adjust to the educational process, etc.

The incoming rector's control of residual knowledge quality is compulsory for students of the first year at the university on mathematics and physics. Such control is an objective and independent identification of the level of student's residual school knowledge in order to form strategies for the graduating university departments with first year students. The results of the incoming rector's control are transferred to the Departments of the University for adjustment of the educational process.

***Continuous assessment*** is carried out by scientific and academic staff on the all kinds of disciplines. The main task of the continuous assessment is revising of the student's level preparation to perform specific work during the academic disciplines. The main purpose of the continuous assessment is to ensure feedback between the scientific and academic staff and the students in the process of training, ensuring the management of student learning motivation. The information obtained during the continuous assessment is used by both scientific and academic staff for adjusting methods and means of training, and by students - for planning independent work.

Continuous assessment can be conducted in the form of oral questioning, written express control or computer testing in practical classes and lectures, students' performances during discussion at seminars, as well as in the form of a colloquium, which results determine whether student is allowed (or not allowed) to perform laboratory work (computer class).

Forms of continuous assessment and evaluation criteria are determined in the working program of the Calendar Module and the rating system of training evaluation results.

Recommendations for developing rating systems are provided in the Regulations on the rating system for evaluating student learning outcomes, and recommendations for the development of diagnostic tools for learning outcomes are provided in the Regulations on semester control and student assessment.

***Mid (module, thematic, calendar) control*** is the control of students' knowledge after studying of the logically completed Calendar Module part of the work programme. This control can be modular (thematic) or calendar and conducted in the form of test, examination, individual semester task, etc. Mid calendar control (intermediate certification) is required twice during the semester of the bachelor preparation, and the master preparation – on the decision of academic councils of institutes / departments. The intermediate certification can be conducted on the basis of the current student rating.

The forms of mid-term (module, topic-based or calendar) evaluation and assessment criteria are defined in the credit module syllabus and rating system of academic performance evaluation.

**Assessment of knowledge preservation** is conducted after a while after studying an academic discipline. The results of this kind of assessment do not affect the mark of the particular student's academic achievements. This kind of assessment can be conducted selectively (statistical control), as a rule, as a part of external quality control of education or internal quality control of education, with the aim of studying the sustainability of students' knowledge. An example of such kind of assessment is rector's control.

**Final assessment** provides the evaluation of student's academic performance at the intermediate or final stages of their education at a certain level of higher education (LHE). It includes semester control and student final examination.

Credit module **semester control** is conducted in accordance with the syllabus in the form of a semester exam or test within the dates, identified by the academic calendar and in the scope of educational material determined by credit module syllabus. The form of semester control (oral, written, mixed, test, etc.), the content and structure of examination paper (control tasks) and assessment criteria are determined by the decision of the relevant Department and are indicated in the credit module syllabus.

**The examination** is a kind of final assessment which reflects the results of student's mastering theoretical and practical material (knowledge and skills) of the credit module of the semester, which is held during the examination sitting.

**The test** is a type of semester control in which the student's mastering of the credit module's academic material is assessed on the basis of the continuous assessment results (tests, continuous evaluation, performance of individual tasks and certain types of work during practical, seminar or laboratory classes / computer workshops) during the semester. A semester test is held if the examination is not planned.

**Final examination** is the establishment of the correspondence between the level of knowledge acquired by higher education graduates and the scope of knowledge, skills and other competences to the requirements of higher education standards. Final examination is conducted by the examination board with the guarantee of openness and transparency.

A higher education establishment, on the basis of the decision of the examination board, awards a person who has successfully completed an educational program at a particular level of higher education (LHE) a corresponding higher education degree and assigns the corresponding qualification.

The regulatory forms of final examination (defense of qualifying paper and / or examinations) are determined by the curriculum in accordance with the requirements of the relevant higher education standard.

According to the level of control the following types are distinguished: self-check, Department, institute / faculty, rector and ministerial control.

**Self-check** is meant for students' self-assessment of the quality of academic material from a particular credit module acquisition (section, topic). For this purpose, textbooks, tutorials, manuals provide questions for each topic (section) aimed at self-check. Greater self-check effectiveness is ensured by special software for self-control and self-assessment, which is an integral part of automatic training courses.

**The Department control** is conducted in order to assess the effectiveness of the academic activity at various stages and is carried out in the form of placement testing, continuous assessment, midterm and semester control.

**Institute / faculty, rector and ministerial control** are different levels of external control, designed to check the quality of the academic activity at the Departments, comparing the effectiveness of student education.

The external control of all levels, as opposed to the Department's control, is conducted selectively (in particular academic groups) only in written form and, as a rule, is aimed to control the knowledge preservation.

## 8.6. Academic Performance Rating System

At the university the academic performance evaluation is conducted with the help of the rating system. The rating system of evaluation (RSE) is based on the step-by-step operational control and accumulation of rating points for the complex student academic and cognitive activity in the process of studying.

The purposes of the rating system are:

- stimulation of the academic activity and quality improvement of specialist training;
- increasing of student motivation towards active and conscious studying, ensuring systematic independent work during the semester and responsibility for the results of academic activities;
- establishment of constant feedback with each student and well-timed modification of his / her academic activity;
- ensuring competitiveness and healthy competition in education;
- increasing the objectivity of student performance evaluation;
- reduction of psychological, emotional and physical overload during examination sittings.

The RSE scale of the credit module is 100 points<sup>7</sup>. The limit of unsatisfactory performance at the university is 59 points. Rating points (RP) of the credit module, semester control of which is conducted in a form of a test, is formed as the sum of all points received by the student based on the results of the continuous assessment, as well as incentive  $r_3$  and penalty points  $r_{III}$ :

$$RP = \sum_k r_k + \sum r_3 + \sum r_{III}$$

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<sup>7</sup> Excluding incentive (penalty) points.

If at the end of the semester after passing all control measures of the credit module the student received at least 60 rating points, and also fulfilled the conditions of admission to semester control<sup>8</sup> for the credit module, he receives a positive mark.

The equivalents of rating points from the credit module  $RD$  to the grades on the university scale are represented on the table 2.

*Table 2. The equivalents of rating points to the grades on the university scale*

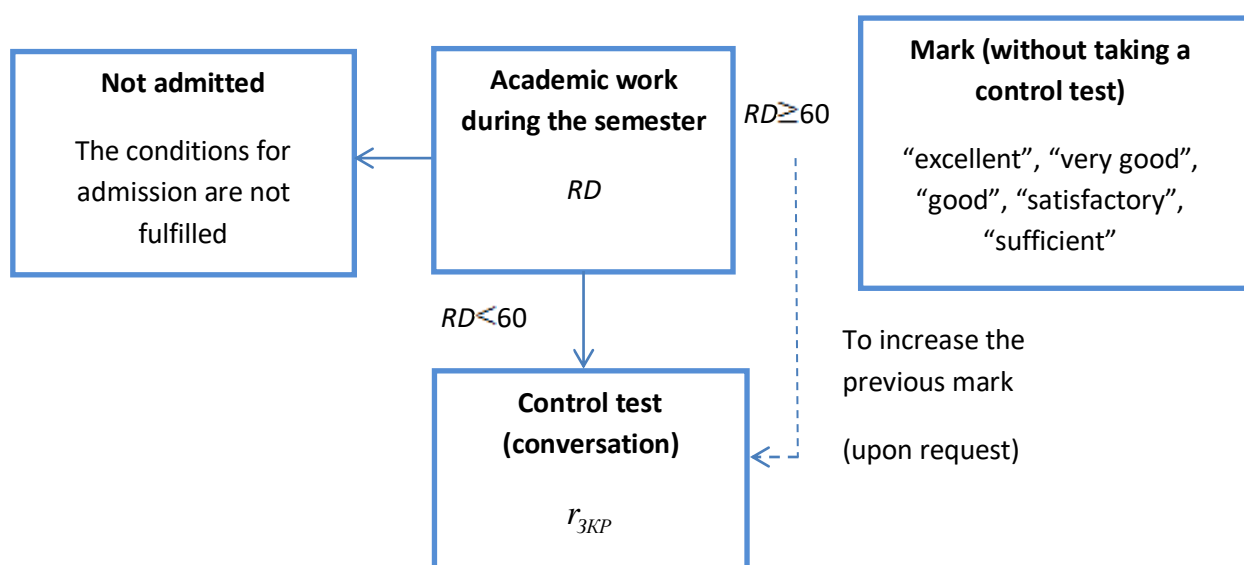
– Rating points, $RD$	– The grades on the university scale
– $95 \leq RD \leq 100$	– Excellent
– $85 \leq RD \leq 94$	– Very good
– $75 \leq RD \leq 84$	– Good
– $65 \leq RD \leq 74$	– Satisfactory
– $60 \leq RD \leq 64$	– Sufficient
– $RD < 60$	– Unsatisfactory
– Failure to comply with admission conditions to semester control	– Not admitted

In case if the sum of rating points is less than 60, but the conditions for admission to semester control of the credit module are fulfilled, the student performs the control test on the last scheduled class.

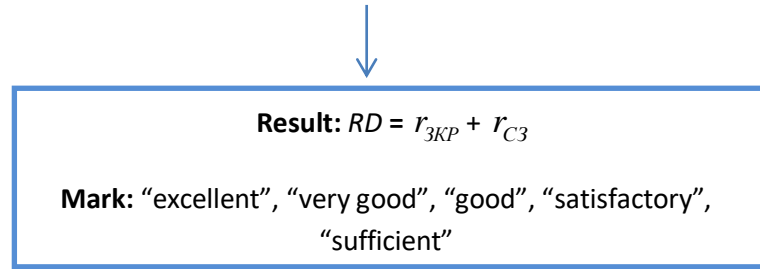
In order to increase the students' interest in the qualitative performance of individual semester tasks, the rating points of the credit module in the case of control test performance are recommended to be determined as the sum of points for the control test  $r_{3KP}$  and points for the performance of the individual semester assignment  $r_{C3}$ .

Upon request, the student has the right to take the control test in order to increase the previous mark.

Scheme of the functioning of the RSE in credit modules, semester control of which is conducted in the form of a test (RSE-1), is shown in Fig. 2.



<sup>8</sup> The conditions for admitting a student to semester control from a certain CM are admission of the semester individual assignment (if it is provided by the credit module syllabus) and the absence of academic backlogs for laboratory work, computer workshops (see para. 7.1, 7.2 and 8.6 of this Regulation)



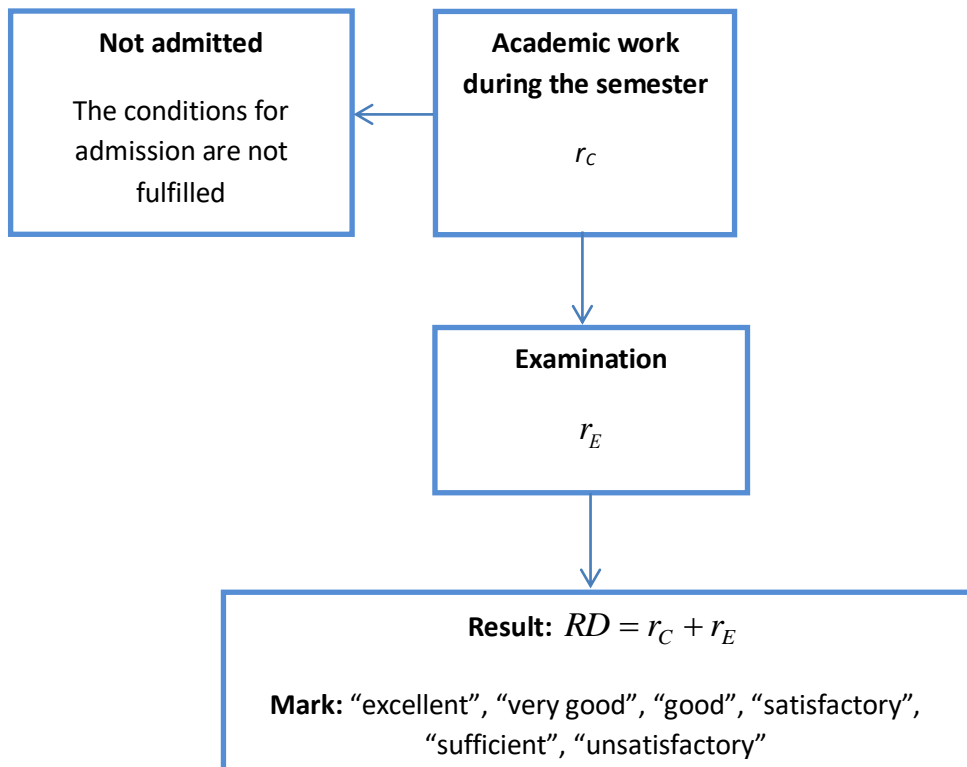
*Fig. 2. Scheme of RSE-1 functioning*

Rating points ( $RD$ ) of credit modules, semester control of which is conducted in the form of an exam, are formed as the sum of the continuous assessment points – the initiative rating  $r_C = \sum_k r_K + \sum r_3 + \sum r_{III}$  and examination points  $r_E$ .

$$RD = r_C + r_E$$

The basis value is determined within the range of 40-60 points. Conditions for admission a student to an exam of a certain credit module are the same as in the RSE-1, beyond that, an additional condition may be set – the initiative rating value should be at least 50% of the basis value.

Scheme of the RSE functioning of credit modules, semester control of which is conducted in the form of exam (RSE-2), is shown in Fig. 3



*Fig. 3. Scheme of RSE-2 functioning*

The conversion of rating points from the credit module to the marks on the university scale is conducted in accordance with Table. 2.

Detailed methodology for formation of RSE and its functioning is described in the relevant guidelines<sup>9</sup>.

### **8.7. Semester Assessment**

The list of exams and semester control<sup>10</sup> tests is determined by the curriculum of the study fields' programs (educational programs). The number of exams in each sitting should not exceed three, and tests – six (not taking into account such academic disciplines as training and physical education).

Semester tests of the credit module are held after the completion of its study before the beginning of the exam sitting. Tests are administered by academic staff, who has lectured or who has held practical or other learning sessions in the academic group.

The mark for the test is given based on the results of the student's work during the semester (student performance of individual semester tasks and control tests, presentations at seminars and continuous assessment marks), if they has received at least 60 points for the RSE. If the student does not receive a sufficient amount of points according to the RSE, the results of the credit test will be based on the results of his / her control test (if the conditions for admission to semester control are fulfilled) which is held at the last class or in the result of the final conversation.

A special kind of credits is the defense of term projects and term papers.

Semester exams are taken by students during the exam sittings according to the schedule, which is approved by the director of the institute / dean of the faculty and brought to attention of academic staff and students not later than a month before the beginning of the sitting.

Exams are administered by academic staff who has given lectures. Academic staff who has held other types of academic activities from this credit module in this academic group is also allowed to take part in the administering an exam.

A student is not admitted to semester control of the particular credit module if they has not completed all types of assignments and tasks (laboratory work, computer workshops, and individual semester assignments), required by the syllabus of this credit module.

Non-admission of a student to semester control of a particular credit module cannot be a reason for his non-admission to semester control of other credit modules.

When conducting semester control, the exam administrator must have the following documents:

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<sup>9</sup> Rating systems for evaluation of student's academic performance: Guidelines on the development and application [Electronic resource] / Igor Sikorsky Kyiv Polytechnic Institute; compl: V.P. Holovenkin. – Electronic text data (1 file: 364 KB). – Kyiv: Igor Sikorsky Kyiv Polytechnic Institute, 2018. – 20 p.

<sup>10</sup> Semester control is a procedure for assessing the level of student achievement of planned student performance from a particular credit module. Details of the preparation and conduct of semester control and midterm student attestation are set out in the Regulations on semester control and student attestation.

- syllabus of the credit module;
- a set of examination papers, control tasks approved by the head of the Department (with the protocol number and date of the Department meeting indication);
- individual examination papers (control tasks) to distribute among students;
- the list of materials, the use of which is allowed to the student during the exam / test, approved by the head of the Department;
- assessment criteria of the level of students' training approved by the head of the Department;
- rating list of semester student progress, printed out and signed by academic staff;
- a test and examination record, signed by the vice director of the institute / dean of the faculty of of / for teaching and educational work.

The exam administrator receives a test and examination record in the dean's office the day before or on the day of semester control.

The presence of unauthorized persons without the permission of the rector, vice-rector or director of the institute / dean of the faculty on exams / tests is not allowed.

The assessment of semester control is conducted in accordance with the RSE of the credit module on the university scale: “excellent”, “very good”, “good”, “satisfactory”, “sufficient” applied for the examinations, tests, term projects and term papers defense, and trainings.

If a student receives unsatisfactory mark, resit of the exam / test of the credit module is allowed no more than two times. At the second resit the exam / test is administered by the exam board established by the director of the institute / dean of the faculty in accordance with the Regulations on conducting semester control and assessments of students. Mark of the exam board is final.

If a student was admitted to semester control, but did not appear due to a valid reason, it is considered that he used the first attempt to pass the examination (test) and has academic backlog.

In case of a conflict situation, on the basis of a reasonable request of a student or a teacher, a director of the institute / dean of the faculty establishes exam board for conducting the exam / test. Exam board includes the head of the Department, academic staff of the corresponding Department, representatives of the dean's office, the trade union committee of students and student council.

Exams / tests to increase the positive mark (except for term projects, term papers and trainings) are allowed not earlier than the next semester and no more than three credit modules for the entire period of study at a certain LHE. The permission is given by the director of the institute / dean of the faculty on the basis of a student's application, in agreement with the head of the corresponding Department, the trade union committee of students and student council. An exam / test is conducted by an exam board consisting of two teachers.

Students who have received no more than two unsatisfactory marks during semester control are allowed to liquidate academic backlog. Elimination of academic debts is conducted within a week after the end of the exam sitting.

In case of valid reasons documented, the director of the institute / dean of the faculty, in agreement with the teaching and educational work department of the university, may set an individual schedule of exams / tests or elimination of academic backlog for particular students lasting no more than a month from the beginning of the next academic semester. If this time framework is not sufficient for the fulfillment of an individual schedule, the possibility of offering an academic leave or repetition course is considered.

During the examination sittings, an external (institute / faculty, rector, ministerial) control of the quality of the educational process at the departments can be conducted.

The results of semester control should be regularly discussed at Department's meetings, institutes / faculties' academic council and the academic council of the university and is one of the important factors in managing the quality of the educational process at the university.

## **8.8. Student's Final Assessment**

Final examination is the establishment of the correspondence between the level of knowledge acquired by higher education graduates and the scope of knowledge, skills and other skills set to the requirements of higher education standards. Final examination is conducted by the examination board (EB) on the basis of the Regulation on the examination board. The terms of final examination are determined by the curriculum.

The format of the final examination of students is determined by the relevant standard of higher education, educational program and curriculum.

Final examination of students is conducted in the form of examination (s) and / or defense of qualifying work (diploma project, diploma thesis, master's thesis).

Students' qualification works should be checked for academic plagiarism. The procedure for conducting of academic plagiarism check of qualifying works is determined by the Provisional Regulations on the system of preventing academic plagiarism in Igor Sikorsky Kyiv Polytechnic Institute.

Final examination can be held either as several separate exams in academic disciplines of professional direction or as a single final exam consisting of several academic disciplines. The list and number of academic disciplines put on final examination of higher education graduates are determined by the relevant higher education standard, educational program and curriculum. In the case both forms of final examination are planned, the defense of the qualifying work is preceded by the examination (s).

Requirements to the content of qualifying work, the program of final examinations and exam papers are developed by the graduating Department taking into account the requirements of the relevant higher education standard, educational program and recommendations set out in the Regulation on the final examination of students of the Igor Sikorsky Kyiv Polytechnic Institute.

Students who have successfully completed all the requirements of the curriculum of the degree of the corresponding LHE (do not have academic backlog) are admitted to final



examination. The decision on the admission / non-admission to the defense of qualification work is taken at the Department's meeting. The decision on the admission to the defense of qualifying work is certified by the head of the Department on the title page of the qualifying work.

The reasons for not admitting to the defense of qualifying work can be:

- failure to submit qualifying work to the Department in due time;
- non-compliance of work with the established requirements;
- presence of intentional text distortions, alleged attempts to suppress matching content or other manifestation of academic plagiarism.

The reasons for not admission of the qualifying work for defense should be indicated in the conclusion of the Department by a separate item.

The defence of qualifying work and final examinations are graded according to the criteria of assessment by using the 100-point-system with the further transfer of points to the grading scale of the university (see Fig. 2).

The decision of the EB on the issuing of diplomas with honours is made at the last closed board meeting according to the results of the final examination and re-typing of the average grades of the final assessments for all the credit modules, course projects, course papers and practices among those who pass the final attestation in the institute / at the faculty for the relevant educational program and are applicants for a diploma with honours. The decision is taken by open vote with the usual majority of votes of the EB members. With the same number of votes, the head of the EB has a decisive vote.

The conditions under which an examination board may decide to give a student a diploma with honours, are:

- the student belongs to the 10% of the best (the number is rounded up to the nearest whole number) by the average score of all credit modules (including course projects, term papers and practices, except for non-credit disciplines) among eligible for the final attestation graduates due to the corresponding educational program at the institute / at the faculty.
- not less than 75% of student's final grades are "excellent" and "very good" for all credit modules, course projects, term papers and practices (except for credit courses);
- the student's final grades for other credit modules, course projects, term papers, student practice and the final examination are "good" (except for non-credit disciplines);
- the student has defended the qualification work and / or completed exams with an "excellent" rating.

Receiving a low grade at one of the final exams does not deprive a student of the right to continue to pass the following stages of graduation. A student who did not defend a qualifying work / was not admitted to the defence or did not pass the final examination, did not appear for the defence of a qualifying paper or for a final examination without valid reasons, is expelled from the university as not having passed the final examination.

Students who were admitted by the director of the institute / dean of the faculty to the Final Examination, but for valid reasons documented, are not able to pass it in due time, on the submission of the director of the institute / dean of the faculty and the assent

of the head of the EB, the leadership of the university may set by the date of an additional meeting for the final exam or qualification work. By this date they cannot be expelled from the university

Students, who were not admitted to the final examination for valid reasons documented, were not able to prepare for it, as advised by the director of the institute / dean of the faculty may continue studying until the next final examination, but not more than for a year.

If the defence of the qualifying work is graded as unsatisfactory, the EB determines whether the student can provide the same qualification work for re-defence with the relevant edition as determined by the examination board or develop a new topic proposed by the graduate department.

The re-defence of qualifying work and retaking of final exams are only allowed during the next final examination three years after graduation. The list of final exams for those who take them for the second time is determined by the curriculum that was valid the year of graduation from the university.

The report of the head of the EC on the specialty is discussed at the meeting of the graduation department and the academic council of the institute or faculty.

The general results of the work of the examining boards on the specialties of the university are discussed at the meeting of the Academic Council of the University

## **9. DETAILS OF ORGANIZATION OF EDUCATIONAL PROCESS**

### **9.1. Details of Organisation of Master's Degree Educational Process**

The Master is a professional in a particular subject area, capable of combining research, design and entrepreneurial activity in a comprehensive way in order to promote the development of an innovative economy, the creation of highly effective production structures that stimulate the growth and development of various spheres of social activity.

A characteristic feature of the education of a specialist in the field of innovative economy should be the high level of methodological culture, creative possession of the methods of knowledge and action. Moreover, not only methods of classical science oriented on finding a single solution, but also methods aimed at the formation and implementation of multidisciplinary, multicriteria approaches, the use of systems analysis methods to the selection of optimal solutions, the solution of non-standard, innovative tasks.

According to the National Qualifications Framework, graduates of the Master's Degree:

- must demonstrate knowledge and skills at a level that ensures the ability to analyze, evaluate and compare alternatives, generate original ideas in the relevant field of knowledge;
- can apply their knowledge and have competencies that allow them to solve problems in a new, broad (interdisciplinary) context in the relevant field of knowledge;
- are able to integrate knowledge, solve complex problems in the absence of information, taking into account social and ethical responsibility for the decisions taken;
- have methods of conducting modern experiments and can provide scientifically substantiated interpretation of the results obtained;
- can clearly, reasonably bring the scientific information to the audience of experts and their conclusions;
- have the necessary skills of self-education and self-regulation.

Taking into account the national qualifications framework, one can formulate requirements for the competences of graduates of the magistracy.

The Master must be capable of:

- transforming the acquired knowledge into innovative technologies and into concrete proposals, demonstrating creativity and flexibility applying the knowledge, experience and methods;
- analyzing, evaluating and comparing alternatives related to the problem, generating and optimizing new solutions based on methodological knowledge;
- carrying out scientific research at the current level, performing in-person and simulation experiments, providing a reasoned interpretation of the results obtained;

- summarizing and preparing for the publication of the scientific research results;
- assessing the impact of decisions taken on the environment and society, bearing professional and ethical responsibility;
- teaching disciplines taking into account the audience, the interests of listeners of their age, professional qualities and other characteristics;
- understanding the need for lifelong learning and the experience of self-knowledge acquisition and advanced training;
- working in interdisciplinary teams, adapting to change and promoting social cohesion;
- Interacting and mediating, having a developed intercultural tolerance and experience of intercultural cooperation;
- communicating effectively with colleagues, presenting their work results in the form of reports, articles, abstracts in the state language, and at least one foreign language (mainly English) with the help of modern presentation tools;
- owning entrepreneurial mindset and corresponding style of activity;
- possessing the values necessary to live in a democratic society, being its responsible citizen and showing the necessary social competencies.

Master's studies at the University are implemented through the following programs:

- educational and professional – for future innovative practical professional activities for a certain type of economic activity (practical pro-film);
- educational and scientific – for future research activities in a certain field of knowledge (academic profile).

The educational and professional program of master's preparation contains 90 cr. ECTS, while the educational-scientific program – 120 ECTS credits. The educational and scientific program of the master's degree of an academic profile necessarily includes a research (scientific) component of at least 30%.

The educational and scientific program for the training of masters of the academic profile is usually integrated with the orientation towards further education at the third (educational-scientific) level of higher education (individual integrated programs "Master – Doctor of Philosophy").

Educational programs of the second (master's) higher education level are implemented at the departments with highly qualified scientific and pedagogical staff, modern laboratory and scientific research material and technical basis, and carry out scientific and post-graduate work on topical scientific and applied problems

The University can carry out target preparation of masters for educational institutions, scientific institutions of the National and branch academies of sciences, enterprises, organizations, etc., on the conditions of their scientific and scientific-pedagogical personnel being involved in the educational process and the use of scientific research and material and technical resources. Masters' training can be carried out on the basis of scientific institutions of the National and branch academies of sciences on the basis of separate agreements between the university and the said institutions.

Admission of persons to study according to the program of the second (master's) level of higher education, is carried out on the basis of the obtained bachelor's degree by the results of competitive selection in accordance with the Rules of admission to the Igor Sikorsky Kyiv Polytechnic Institute, which are approved by the Academic Council of the University and are published on the portal [www.kpi.ua](http://www.kpi.ua).

The educational process for those studying in master's programs is organized taking into consideration the following features:

- studying according to an individual syllabus;
- providing of the number of lecture courses and training groups, technology of mixed learning<sup>13</sup> is being introduced;
- master's dissertation, which is carried out on the practical profile of the preparation, should be the result of an innovative solution to the problem-oriented task set on the basis of known theories and methods;
- master's dissertation, which is carried out under the academic profile of the preparatory work, must be the result of a self-fulfilling studying of a particular object, its characteristics, properties. The main purpose and content of the master's dissertation is scientific research (creative development) on problems related to the area of studying;
- final examination is carried out by the examination commission and is carried out in the form of defense of the master's thesis. The examination committee must submit materials characterizing the scientific (creative) and practical value of the work performed, for example, printed articles, methodological developments, etc.;
- taking into account the scientific (creative) achievements, the Master may be recommended by the Academic Council of the Institute or faculty and/or the Examination Commission for continuing the postgraduate studying.

The main forms of academic work at Master's course are:

- overview and problem lectures;
- individual training sessions;
- scientific and educational seminars on particular topics, sections of educational disciplines and studies conducted by students;
- independent work, including conducting research on the approved topic and preparing a master's thesis.

The master students' reports on the implementation of the curriculum are:

- taking examinations and obtaining credits;
- performing on scientific and educational seminars;
- preparation and defending abstracts and reports on performed research.

The obligatory auditorial workload for masters should not exceed 15 hours per week on average for the entire period of on-learning. When planning master's syllabus, it is necessary to focus on individual curriculum and independent student work. For the disciplines of individual choice on the topic of research and the integrated programs "Master – Doctor of Philosophy" self-study is planned under the guidance of a scientific supervisor. Studying at a master's degree program is conducted under the direction of a

scientific supervisor according to the student's individual plan and is based on active independent work.

Scientific supervisors of professional profile masters are appointed from among professors, associate professors and leading scientists in a certain field of knowledge which actively conduct research work and fulfil the relevant requirements to the level of scientific and professional activity of the SPW. The scientific supervisors of academic profile masters have to comply with the requirements for PhD students.

The list of scientific supervisors and a list of the recommended topics of master's research papers are discussed at the meetings of the departments.

The themes for scientific research of master students are formed on the basis of research topics (budget, economic, initiative, technopark, etc.) that are carried out at the university and should be formulated in such a way as to ensure the purposeful formation of the individual curriculum of master student's training and his/her specific work in the research direction from the first semester of the master's degree programme. The themes of scientific research of the academic profile master students should have the prospective within the framework of the integrated curriculum "Master – Doctor of Philosophy".

At the same time, not more than 5 undergraduate students are assigned to one scientific supervisor. The supervisor once a semester reports to the Department of the individual plan for each student who is studying in the magister programme. In cases where a student undergoes individual master's training plans at the intersection of the branches of science, the appointment of one or more consultants, with the appropriate allocation of hours for the training, may be appointed, in addition to the supervisor.

The scientific supervisor of the master's degree student:

- participates in the selection of candidates for a magistracy, reviews their scientific work;
- helps the student choose the topic of scientific research and master's thesis, developing an individual curriculum;
- controls the student's execution of the educational process schedule and syllabus;
- promotes the organization of individual educational activities of a master student;
- analyzes and controls the organization of independent work of a master student;
- organizes and supervises the research work of the master student;
- supervises the preparation of a master's thesis;
- promotes the general culture of the master student;
- contributes to solving social and domestic problems of a graduate student and his occupation upon graduation;
- gives feedback on the master's dissertation and the description of the professional and individual qualities (analytical, research, ideological, etc.) of the master student.

The University creates conditions for a student who is studying in a master's program, an individual plan in full, namely:

- gives students the opportunity to publish scientific (scientific-methodical) articles in collections;
- promotes the publication of the best master's theses as scientific monographs and other scientific and educational publications;
- provides students with the opportunity to use educational facilities, scientific foundations of bi-libraries and scientific equipment;
- provides access to information networks, including the Internet;
- facilitates student participation in scientific and methodological conferences;
- organizes conducting of courses for students according to their personal choice on pro-question issues with the participation of prominent scholars.

## **9.2. Details of Organisation of PhD's Degree Educational Process**

The preparation of the candidates for the Ph.D. degree is carried out:

- in postgraduate education at Igor Sikorsky Kyiv Polytechnic Institute (hereinafter referred to as "the University") on intramural (daytime, evening) and extramural programs;
- out of postgraduate education (for those who conduct scientific, technological and academic activities in the main place of work at the University).

According to the National Qualification Framework PhD students must demonstrate such competencies:

- the ability to manage the complex issues in the professional and/or research and innovative activity field, which implies a careful rethinking of existing and creation of new holistic knowledge and / or practical training;
- mastery of the best available conceptual and methodological knowledge in the research and professional activity field at the interface between subject areas;
- the ability to think critically, to evaluate and synthesize new and complex ideas
- the ability to develop and implement projects, including students research, which provide an opportunity for rethinking the existing and create new holistic knowledge and / or practical training and solving important social, scientific, cultural, ethical and other problems;
- the ability to initiate innovative complex projects and their independent implementation;
- the ability to understand and to take social responsibility for the result of making professional decisions;
- the ability of self-development and self-improvement during life;
- the ability to communicate online with the broader scientific community and the publicity within scientific and/ or professional activities.

Preparation of PhD candidates is carried out on the educational-scientific programme and curriculum. The PhD student is obliged to meet all the requirements of the educational-scientific programme, in particular, to obtain planned competencies, knowledge and skills sufficient to produce new ideas, solve complex problems within professional and / or research and innovative activities, master the methodology of scientific and educational activities, as well as conduct own scientific research which will have scientific novelty, theoretical and / or practical relevance, and defend a thesis.

Research and academic postgraduate program should include at least four components, involving a PhD student's acquisition of:

depth knowledge in his/her field, in which the graduate student conducts research, in particular the mastering of basic concepts, understanding of theoretical and practical problems, the history of development and the current state of scientific knowledge in the chosen profession, knowledge of the terminology within scientific direction (indicative scope of the educational component is 12 ECTS credits);

- general academic competencies, aimed at the forming of systematic scientific outlook, professional ethics and a common cultural outlook (indicative scope of the educational component is 4-6 ECTS credits);
- universal researcher skills, in particular, oral and written presentation of the results of own scientific research in the Ukrainian language, application of modern information technologies in research activities, organization and conduct of training sessions, management of research projects and / or writing proposals for funding research, recording intellectual property rights (indicative scope of the educational component is at least 6 ECTS credits);
- language competences sufficient to present and discuss the results of their scientific work in a foreign language (English or other in a compliance with the peculiarities of the major) orally and in writing, as well as to fully understand foreign scientific texts according to the specialisation (indicative scope of the educational component is 6- 8 the ECTS credits).

The curriculum of postgraduate study contains information about the list and scope of academic subjects, the sequence of their study, the form of learning sessions and their scope, the schedule of the educational process, the form of continuous and final assessment.

The scientific-research programme and the curriculum of postgraduate study is the basis for the formation of an individualized curriculum, which is agreed with the supervisor and approved by the institute/faculty's Academic Council within two months of the date of enrolment.

Individual schedule of PhD students (Annex G) contains two sections: individual curriculum and individual plan of a PhD student's thesis. PhD student's individual schedule is made in triplicate and stored in the Post-graduate and Postdoc Studies Department of the University, at the Graduating Department Department and at the PhD student.

Individualized Curriculum for PhD student should contain a list of academic disciplines at the choice of a PhD student in the amount of not less than 25% of the total



number of ECTS credits. At the same time, PhD students have the right to choose disciplines that are offered for other levels of higher education and related to the subject of thesis, in coordination with their scientific supervisor.

The content, time frames and volume of thesis, as well as the planned term for defending a thesis during the period of preparation in postgraduate study are defined in the individual thesis research plan.

Individualized curriculum for PhD students is mandatory. Violation of the deadlines for the implementation of an individual curriculum without a valid reason provided by law may be grounds for deciding about expulsion of the PhD student.

Postgraduate training is completed by the defending of the scientific achievements of a PhD student in a specialized academic council.

Scientific supervisor (among academic staff) is appointed to PhD student simultaneously with his enrolment by the appropriate order of the rector. PhD students performing research at the intersection of various scientific areas of study can be appointed to two supervisors, provided a clear division of responsibilities between supervisors.

The supervisor provides scientific guidance to the PhD student, provides advice on the content and methodology of postgraduate research, monitors the implementation of the individual curriculum and is responsible to the institute / faculty's academic council for the proper and timely implementation of the duties of the supervisor.

The scientific supervisor, who is a doctor of science, can provide simultaneous scientific guidance (consulting), normally, no more than five external doctoral candidate, including those who receive a scientific degree of doctor of science.

The scientific supervisor, who has a PhD degree, can carry out simultaneous supervising, normally, no more than three external doctoral candidate.

Scientific supervisor must meet the following requirements (achievements for five years):

- implementation of research work on state budget topics, state programs, ministries and departments orders, enterprises and organizations requests , international contracts (with registration at the University), or the implementation of initiative topics with the obligatory involvement of PhD students, the theme of thesis which partially or completely coincides with the theme of the work;
- at least three scientific publications in periodicals included in the scientometric database recommended by the Ministry of education and science;
- availability of scientific publications in scientific publications included in the list of scientific professional publications of Ukraine, and / or copyright certificates and / or patents with the total number of five achievements;
- positive dynamics of citations of scientific reaserches;
- a published textbook or tutorials approved by the University, or monograph (in the case of co-authorship with a fixed contribution);
- annual presentations at national and international scientific conferences;
- experience of successful mentoring of external doctoral candidate.

The scientific supervisor performs the following functions:

- defines the aim and objectives of the thesis;
- directs the work of a PhD student in accordance with the chosen topic;
- assists in the implementation of the postgraduate educational and research components of the individual schedule of PhD student, coordinates the training of PhD student to obtain the necessary competencies;
- provides scientific advice on the essence of the thesis, its form and content, as well as the presentation of the results;
- supervises the implementation of the individual schedule of PhD student;
- assesses the work done and gives an opinion on its compliance with the established requirements.

PhD students exercise the rights of higher education candidates, defined by the Law of Ukraine “On higher education”. In order to conduct proper research, PhD students are also entitled to:

- free access to all kinds of open scientific information available in higher educational institutions (scientific institutions), libraries and state archives of Ukraine;
- getting methodical and informative scientific advice on their research from the supervisor;
- safe and harmless conditions for scientific research, providing a properly equipped place for scientific work;
- academic mobility;
- for enrolment of credits provided for by the educational and scientific program of postgraduate study for learning a foreign language, if there is an appropriate certificate confirming the knowledge of a foreign language at the C1 level; and also on the use of the scope of study load provided for the acquisition of language competences, to obtain other competencies (in agreement with the supervisor);
- changing individual schedule of PhD student in agreement with the supervisor and the approval of the institute/faculty’s Academic Council;
- participation in grants competitions and scholarships established in honor of eminent personalities in science, education, culture and public figures, as well as founded by the President of Ukraine, the Cabinet of Ministers of Ukraine, state or non-state bodies, enterprises, institutions or organizations;
- academic leave of absence, including health reasons, pregnancy and childbirth, child-care leave until the child's third birthday, in accordance with the law.

PhD students are obliged to perform all the duties of doctoral candidate, determined by the Law of Ukraine “On higher education”. In order to ensure the proper conduct of research, PhD students are also required to:

- implement ethical standards and standards of conduct for researchers in the relevant industry (profession) established by the University;

- carry out an individual schedule and report systematically on its implementation at a Department meeting;
- attend (regardless of the modes of study) classes and pass all forms of continuous and final assessment provided by post-graduate scientific-research programme and individualized curriculum for PhD students;
- defend their scientific achievements in the form of a dissertation in a specialized Academic Council within the prescribed period.

A PhD student may be expelled on the basis of:

- completion of study according to the corresponding scientific-research programme;
- on their own accord;
- transfer to another educational institution;
- failure to implement the scientific-research programme;
- breach of contract, concluded between the higher education institution and the person who studies, or individuals and legal entities that pays for study;
- other cases prescribed by law.

The expulsion of a PhD student is carried out under the rector's decree according to the decision of the University's Academic Council on the recommendation of the Institute / faculty's Academic Council.

Assessment of PhD candidates is carried out by a permanent or specialized Academic Council, formed for a single defence, on the basis of public defense of scientific achievements in the form of a thesis.

The state of readiness of the PhD student thesis for defense is determined by the supervisor. A prerequisite for admission to the defense is the successful implementation of its individualized curriculum.

Preparation of PhD candidates at the University is carried out in accordance with the temporary regulations on the preparation of PhD candidates at the National Technical University of Ukraine Igor Sikorsky Kyiv Polytechnic Institute.

### **9.3. Details of Organisation of Corresponding Learning Educational Process**

The implementation of distance learning in a particular major is carried out by the decision of the University's Academic Council on the recommendation of the University's Methodical Council.

Distance learning in a particular specialty can be introduced if:

- intramural mode of study is carried out;
- a necessary personnel, educational-methodical, material-technical and information support of this mode of study is available.

Admission to the Extramural mode of study is carried out according to the rules of admission to the Igor Sikorsky Kyiv Polytechnic Institute, that are approved by the University's Academic Council and published on the portal [www.kpi.ua](http://www.kpi.ua). Persons enrolled to the extramural mode of study have student status and are subject to rights and duties established by current legislation.

According to the Labour Code of Ukraine, the Law of Ukraine "On holidays" and the Resolution of the Cabinet of Ministers of Ukraine of 28 June 1997 № 634 "On approval of the Order, duration and conditions of annual leave for employees who study in higher educational institutions with evening and distance learning, where the educational process has its own characteristics" for persons who are in labor relations with enterprises, institutions, organizations regardless of ownership, type of activity and industry sector, and working under an employment contract from an individual and enrolled in institutions of higher education by distance provided additional incentives in the form of paid leave and leave without pay.

The content, scope, structure and quality of competencies, knowledge and skills of external student students must meet the requirements of the standard of higher education.

The duration of bachelor's and master's programs in the extramural mode of study in a particular major is the same as programs in the intramural mode of study.

The curriculum for the extramural mode of study according to the list of disciplines, number of credits and forms of final assessment should be fully consistent with the curriculum of intramural mode of study. Classroom sessions are planned to carry out the necessary for scheduled invited key lectures, laboratory work, computer workshops, protection semester individual assignments (CP, CD, OCD, etc.), tests.

The distance learning process shall be organized in accordance with this Regulation and shall be carried out during the sessions and during the interim period. The session for distance learning is a part of the academic year, during which all types of learning sessions provided by the curriculum (lectures, laboratory class, computer workshops, practical and seminar classes, consultations) and control activities are carried out.

Invited key lectures are conceptual, generalizing and reviewing.

Seminars are held on the main topics of CM, which are submitted for independent study by students.

Practical and laboratory classes, computer workshops should ensure the formation of the necessary composition and level of skills.

The total duration of sessions for each academic year is determined on the basis of the amount of additional leave specified in article 15 of the Law of Ukraine "On holidays", as well as in the Resolution of the Cabinet of Ministers of Ukraine dated June 28, 1997 № 634. The number of sessions and their dates are set annually by the academic calendar, taking into account the peculiarities of the major and the year of study.

The interim period for extramural mode of study is a part of the academic year, during which the student works on learning the material both independently and under the guidance of scientific and teaching staff. The main form of external student's work on mastering the educational material is the performance of individual assignments. Individual assignments provided by the curriculum can be performed both at home (outside the University) and at the University. Individual assignments are carried out in the manner prescribed by this Regulation.

In order to ensure the systematic independent work of external students in the interim period, consultation, the defense of course projects, term papers and individual

assignments may be held. During the interim period, external students may be given the opportunity to attend classes and perform other types of academic tasks with internal students in agreement with the academic staff.

Individual assignments performed outside the University are checked by academic staff within seven days from the moment of their admission to the University and are enrolled according to the results of the interview of the academic staff with the student. Individual assignments performed at the University are checked by academic staff within two days and are credited according to the results of their implementation. Procedures for performance accounting of individual assignments are defined by the corresponding Department.

Examinations and test, individual assignments are stored at the Department for one year, and then are shredded. A corresponding document (act) is drawn up at the Department indicating the list of students' works and surnames.

The organization external mode of study during the sessions and in the interim period is carried out in accordance with the academic calendar and curriculum for the current year, which is brought to the attention of all students before the beginning of the school year.

The Director of the Institute / Dean of the Faculty can set an individualized curriculum of the educational process for individual students under certain conditions (illness, business trips, difficult family circumstances).

External students are allowed to participate in the examination session, if they do not have academic backlog for the previous course (term) and by the beginning of the session have completed all the individual assignments with CM submitted to the session. Checked individual assignments and committed to the defense term projects and papers considered as implemented.

## ANNEX A. NATIONAL QUALIFICATIONS FRAMEWORK

<i>Level</i>	<i>Knowledge</i>	<i>Abilities</i>	<i>Communication</i>	<i>Autonomy and responsibility</i>
7	The ability to solve complex specialized tasks and practical problems in a particular area of professional activity or in the educational process that involves the use of certain theories and methods of the relevant science and is characterized by complexity and uncertainty of conditions.			
	Conceptual knowledge acquired in the process of education and professional activities including certain knowledge of modern achievements. Critical understanding of the main theories, principles, methods and concepts in training and professional activities	Solving complex unpredictable tasks and problems in specialized areas of professional activity and / or training, involves the collection and interpretation of information (data), the choice of methods and tools, the application of innovative approaches.	Reporting to specialists and non-specialists information, ideas, problems, solutions and own experience in the field of professional activity. The ability to effectively form a communication strategy.	Management of complex actions or projects, responsibility for making decisions in unpredictable conditions. Responsibility for the professional development of individuals and / or groups of individuals. Ability to further learning with a high level of autonomy.
8	The ability to solve complex problems and problems in a particular area of professional activity or in the learning process, provides for research and / or innovation, and is characterized by uncertainty of conditions and requirements.			
	Specialized conceptual knowledge acquired in the process of education and / or professional activity at the level of the latest achievements, which are the basis for original thinking and innovation, particularly in the context of research work. Critical understanding of problems in training and / or professional activities and on the verge of subject areas.	Solving complex problems and problems, requires updating and integrating knowledge, often in conditions of incomplete / insufficient information and conflicting requirements. Production of research and / or innovation activities	Understandable and unambiguous report of their own conclusions, as well as knowledge and explanations that justify, to specialists and non-specialists, in particular to people who study. The use of foreign languages in professional activities.	Decision making in difficult and unpredictable situations, which requires the use of new approaches and forecasting. Responsibility for the development of professional knowledge and practices, assessment of the development of the team. Ability to further learning, that is mainly autonomous and independent.
9	The ability to solve complex problems in the field of professional and / or explorative-innovative activities that involves careful rethink of existing holistic knowledge and / or professional practice and the creation of new ones.			

<i>Level</i>	<i>Knowledge</i>	<i>Abilities</i>	<i>Communication</i>	<i>Autonomy and responsibility</i>
	The most advanced conceptual and methodological knowledge in the field of research and / or professional activity and on the border of subject areas.	Critical analysis, evaluation and synthesis of new and complex ideas. Development and implementation of projects, including our own research, which provide an opportunity to rethink the existing one and create new holistic knowledge and / or professional practice and solve important social, scientific, cultural, ethical and other problems.	On-line interaction with the broad scientific community and the public in a specific area of scientific and / or professional activities.	Initiation of innovative integrated projects, leadership and full autonomy in their implementation. Social responsibility for the results of strategic decisions. Ability to self-development and self-improvement throughout life, responsibility for teaching others

## ANNEX B. INDIVIDUAL CURRICULUM FOR MASTER'S DEGREE STUDENTS

**National Technical University of Ukraine  
“Igor Sikorsky Kyiv Polytechnic Institute”**

\_\_\_\_\_  
(name of institute / faculty)

APPROVED by  
Head of department

\_\_\_\_\_  
(name of department)

\_\_\_\_\_  
(signature) (initials, surname)

«\_\_» \_\_\_\_\_ 20\_\_ y.

### EDUCATION PLAN OF MASTER'S QUALIFICATION

in the specialty \_\_\_\_\_

specialist area \_\_\_\_\_

student \_\_\_\_\_ year \_\_\_\_\_ group

\_\_\_\_\_  
(Full Name)

1. Enrolled by the order of rector of \_\_\_\_\_ 20\_\_ y. № \_\_\_\_\_

2. Entry date \_\_\_\_\_ 20\_\_ p. Expected graduation date \_\_\_\_\_ 20\_\_ p.

3. Scientific supervisor \_\_\_\_\_  
(degree level, academic status, surname and initials)

4. Subject of scientific research (the theme of the startup\*) \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

5. Scientific supervisor and subject of scientific research (startup\*) approved by the department ,  
protocol № \_\_\_\_\_ by \_\_\_\_\_ 20\_\_ y.

\_\_\_\_\_  
\* For masters of practical education.



APPROVED by  
Head of department \_\_\_\_\_  
(name of department)

\_\_\_\_\_  
(signature) (initials, surname)

« \_\_\_\_ » \_\_\_\_\_ 20\_\_ y.

### Work plan for the first year of study

№	Names of academic subjects	Amount of credits ECTS	Form	Note of scientific supervisor
I term				
1				
2				
3				
4				
5				
6				
7				
II term				
1				
2				
3				
4				
5				
6				
7				

Changes (additions) to the plan:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\* Subject of dissertation \_\_\_\_\_  
\_\_\_\_\_,  
approved by the order of rector of « \_\_\_\_ » \_\_\_\_\_ 20\_\_ y. № \_\_\_\_\_

Scientific supervisor \_\_\_\_\_

Master's Degree Student \_\_\_\_\_

\_\_\_\_\_  
\* For masters of practical education.

APPROVED by  
Head of department \_\_\_\_\_  
(name of department)

\_\_\_\_\_  
(signature) (initials, surname)

« \_\_\_\_ » \_\_\_\_\_ 20\_\_ y.

### Work plan for the second year of study\*\*

№	Names of academic subjects	Amount of credits ECTS	Form	Note of scientific supervisor
III term				
1				
2				
3				
4				
5				
6				
7				
IV term				
1				
2				
3				
4				
5				
6				
7				

Changes (additions) to the plan:

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Subject of dissertation \_\_\_\_\_

\_\_\_\_\_,

approved by the order of rector of « \_\_\_\_ » \_\_\_\_\_ 20\_\_ y. № \_\_\_\_\_

Scientific supervisor \_\_\_\_\_

Master's Degree Student \_\_\_\_\_

\_\_\_\_\_  
\*\* For masters of scientific education.

**Master's report for the first year of study:**

Decision of department's meeting, protocol № \_\_\_\_ by \_\_\_\_\_ 20 \_\_ y.

Secretary of Department \_\_\_\_\_

Head of department \_\_\_\_\_

**Master's report for the second year of study:\*\***

Decision of department's meeting, protocol № \_\_\_\_ by \_\_\_\_\_ 20 \_\_ y.

Secretary of Department \_\_\_\_\_

Head of department \_\_\_\_\_

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\*\* For masters of scientific education.

## **ANNEX C. STRUCTURE AND CONTENTS OF AN INSTITUTE/FACULTY INFORMATION PACKAGE**

Information about the institute / faculty, the department and characteristic features that are common to all.

1. ECTS Coordinator of the institute / faculty: complete contact information including full name, address, e-mail, telephone and fax, as well as an e-mail of a coordinator and those who take their place. Specify the hours when you can contact the coordinator.
2. Brief description of the structure and organization of the institute / faculty, including the number of staff members and students, as well as the main areas of research work.
3. Brief description of the conditions for studying in the institute / at the faculty (library, laboratories, workshops, their equipment, etc.).
4. Educational programs.
5. Programs of educational disciplines of corresponding educational programs.
6. Conditions for matriculation, recognition of previous studies.

## ANNEX D. CREDIT MODULE STUDY GUIDELINES FOR STUDENTS

### (TYPICAL STRUCTURE)

Recommendations are created on the basis of the corresponding program of the credit module. To ensure the principle of awareness of learning and the high efficiency of organization of students' independent work, the following structure of the document is recommended.

#### 1. The aim and the tasks of the credit module

According to the relevant section of the work program, to reveal the **PURPOSE** via the collection of abilities that should be formed in a student as a result of mastering the CM. The ability has such a "formula" - "after the assimilation of the credit module, the student must be ready to" what to do (action) "+" the subject of activity ".

**TASKS** of the credit module should determine the "expected learning outcomes" in terms of a set of requirements for KNOWLEDGE and SKILLS.

#### 2. Structure of the credit module

<i>Total</i>		<i>Distribution of study time by the type of lessons *</i>				<i>End-of-term control</i>
<i>credits ECTS</i>	<i>hours</i>	<i>lectures</i>	<i>practical classes / seminars</i>	<i>lab works/ computer classes</i>	<i>Individual work</i>	
						Credit

#### 3. Theme schedule

<i>Week</i>	<i>Content of study</i>	<i>Recommended time for Individual work</i>
1	Lecture 1 (name)	1
2	Lecture 2 (name) Practical class 1 (name)	2
3	Lecture 3 (name) Laboratory work 1 (name)	4
...	...	...
9	Lecture 9 (name) Practical class 4 (name) Test 1	5
10	Lecture 10 (name) Practical class 5 (name) Presentation of the estimated work	2
...	...	...
17	Lecture 17 (name) Laboratory work 8 (name)	4
18	Lecture 18 (name)	1

#### 4. Recommendations for the accomplishment of individual term work

---

\* Columns of types of lessons were excluded.

## **5. Individual work \*\***

Week	The name of the topic that is assigned for self-study	Literature	Time for Individual work
3-4		[2], p. 8-15	3
2			
...			

There are sections, topics of the program that are offered for self-study, as well as a list of basic questions and references to literature.

## **6. Tests**

There are tests (credits) on certain sections (topics). Recommendations on preparation for tests and criteria for evaluation are given.

## **7. Academic performance assessment**

A description of rating assessment systems is given where it should be determined: what kind of student's work is evaluated, the distribution of points by type of work, the criteria for evaluating each type of work, a list of test questions for diagnosing learning outcomes, the structure of examination papers (assignments for test examination) with criteria for evaluation. The scale of conversion of rating points in the corresponding evaluation of the university rate.

## **8. Recommended literature**

Basic

...

Additional

...

Informational resources

...

## **9. Consultations and contacts with the scientific and pedagogical supervisor.**

The time and place of consultations are determined and contact numbers are given, e-mail.

---

\*\* Only if there are topics that are planned for self-study - without conducting classroom lessons.

# ANNEX E. MODEL OF ACADEMIC SUBJECT PROGRAMME

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE  
NATIONAL TECHNICAL UNIVERSITY OF UKRAINE  
“IGOR SIKORSKY KYIV POLYTECHNIC INSTITUTE”

**Institute / faculty**

APPROVED BY

**Head/ dean**

**of the institute / faculty**

\_\_\_\_\_ Initials, Surname

«\_\_\_\_» \_\_\_\_\_ 20\_\_ y.

**Name of academic subject**

**Code of discipline**

**PROGRAMME  
of academic subject**

**First bachelor / second master's degree of higher education**

**Specialty XXX «Name»**

**Educational-professional / Educational-scientific programme «Name»**

Approved by methodological committee

**institute / faculty**

protocol \_\_\_\_\_ 20\_\_ y. № \_\_\_\_\_

Head of methodological council

\_\_\_\_\_ **Initials, Surname**

«\_\_\_\_» \_\_\_\_\_ 20\_\_ y.

Kyiv – 20XX

DEVELOPERS OF THE PROGRAMME:

Position, scientific degree, academic rank, surname, name, middle name

\_\_\_\_\_

Position, scientific degree, academic rank, surname, name, middle name

\_\_\_\_\_

Position, scientific degree, academic rank, surname, name, middle name

\_\_\_\_\_

Program was approved on faculty meeting full name of the department protocol  
«\_\_\_\_»\_\_\_\_\_20\_\_ year № \_\_\_\_

Head of department

\_\_\_\_\_ Initials, Surname

«\_\_\_\_»\_\_\_\_\_20\_\_ y.



## Introduction

The program of the academic subject “the name of the academic subject” is compiled in accordance with the **educational professional / educational scientific** program “**Name**” of the **first bachelor’s / second master’s** level of higher education in the specialty **XXX** “**Name**”.

Academic subject refers to the cycle of **general / professional** training.

The status of the subject is **compulsory/non-obligatory**.

The volume of subject **XXX** credits ECTS.

Interdisciplinary communication: indicates the place of the academic discipline in the structural-logical scheme of the educational program, a list of previous disciplines, as well as those provided by this academic discipline.

## 1. The aim and the tasks of the academic subject

### 1.1. The aim of the academic subject

The aim of the discipline is to develop students' skill sets:

**ABILITY:**

- "activity" + "object of activity";
- "activity" + "object of activity";
- ...

The purpose of the discipline is determined through the list of competencies (abilities to solve certain tasks) that the student must demonstrate after mastering the academic discipline. Generalized competencies specified in the educational program are provided with the appropriate codes.

### 1.2. The main tasks of the academic subject

After mastering the discipline, students should demonstrate the following learning outcomes:

**KNOWLEDGE:**

- ...

**SKILLS:**

- ...

The tasks of studying an academic discipline is presented in the form of a system of knowledge and skills with an indication of a certain level of their formation \*, which allows determining the necessary level of mastering educational material and developing tools for diagnosing students' knowledge. Generalized knowledge and skills specified in the educational program are provided with the appropriate codes.

## 2. Content of the discipline

A logically ordered and stated didactically substantiated list of key issues, possibly divided into sections.

## 3. Planned types of training activities and teaching methods

The section indicates the planned types of training sessions (lectures, practical classes / seminars, laboratory works / computer classes), types of individual tasks (course projects / courseworks, R & D, PP, reference paper, etc.).

The basic teaching methods are determined.

Example:

Active and collective learning strategies are applied, determined by the following methods and technologies:

- 1) methods of problem-based learning (problem statement, partial-search (heuristic conversation) and research method);
- 2) self-oriented (developing) technologies based on active forms and methods of learning (brainstorming, situation analysis, businesslike, role-playing and simulation games, discussion, conference, training debates, round table, case technology, design technology, etc.)
- 3) information and communication technologies that ensure the problem-research nature of the learning process and enhance students' independent work (electronic presentations for lectures, the use of audio and video training sessions, the development and use of creative tasks based on computer and multimedia tools, and additions to traditional training sessions means of interaction based on network communication capabilities (Internet forum, Internet seminar, etc.).

#### **4. Evaluation of learning outcomes**

Example:

End-of-term test is carried out in the form of an exam. To assess the learning outcomes, a 100-point rating system and a university rate are used.

#### **5. Recommended literature**

##### **Basic**

- 1.
2. ...

##### **Additional**

- 1.
2. ...

The list of recommended literature consists of two parts: basic and additional.

The list of basic literature includes textbooks, teaching aids, lecture notes, teaching and methodological support of laboratory work, practical, seminars, individual tasks etc. Basic literature should be appropriately identified and accessible to students. The number of copies of basic educational literature must comply with the accreditation requirements (1 book for 5 students). These copies must be in the science and research library (institute / faculty library or in the methodical office of the relevant department). Basic literature can be provided in electronic form with free access for students, for example, in the electronic archive [ela.kpi.ua](http://ela.kpi.ua), electronic campus, the department website etc.

Additional literature is intended for more in-depth study of individual sections, topics or credit module as a whole. The list also includes standards, dictionaries, reference books, etc.

# ANNEX F. MODEL OF CREDIT MODULE SYLLABUS

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE  
NATIONAL TECHNICAL UNIVERSITY OF UKRAINE  
“IGOR SIKORSKY KYIV POLYTECHNIC INSTITUTE”

**Institute / faculty**

APPROVED BY

**Head/ dean**

**of the institute / faculty**

\_\_\_\_\_ Initials, Surname

«\_\_\_\_» \_\_\_\_\_ 20\_\_ y.

\_\_\_\_\_ Initials, Surname

«\_\_\_\_» \_\_\_\_\_ 20\_\_ y.

## **Name of Credit Module**

### **PROGRAMME OF CREDIT MODULE**

**First bachelor / second master's degree** of higher education

**Specialty XXX «Name»**

**Educational-professional / Educational-scientific** programme «Name»

**Intramural/extramural** form of study

Approved by methodological council

**institute / faculty**

Minutes No. \_\_\_\_\_ dated \_\_\_\_\_ 20\_\_

Head of methodological committee

\_\_\_\_\_ **Initials, Surname**

«\_\_\_\_» \_\_\_\_\_ 20\_\_ y.

Kyiv – 20**XX**

Credit module syllabus «**Title**» compiled in accordance with the Academic subject program «**Title**» (**educational program code**).

SYLLABUS DEVELOPERS:

Job title, scientific degree, academic rank, full name

\_\_\_\_\_

Job title, scientific degree, academic rank, full name

\_\_\_\_\_

Job title, scientific degree, academic rank, full name

\_\_\_\_\_

The syllabus was approved at the Department`s meeting full official title protocol dated  
«\_\_\_\_»\_\_\_\_\_ 20\_\_ № \_\_\_\_

Head of the Department

\_\_\_\_\_ Initials, last name

«\_\_\_\_»\_\_\_\_\_ 20\_\_.

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© NTUU “Igor Sikorsky Kyiv Polytechnic Institute”, 20\_\_

## 1. ECTS MODULE DESCRIPTION

Level of higher education, speciality, educational program, mode of study	General information	ECTS module Specification
Higher education level: first (Bachelor) level; second (Master) level	Academic discipline: «Name»	Lectures: XX hours
Speciality: XXX «Title»		Practical classes (seminars/ tutorials): XX hours
	Cycle: general/professional training	Laboratory classes: XX hours
Educational training/ Scientific-research program «Tile»	ECTS module status: compulsory/optional	Self-study: XX hours, including individual assignment completion: XX hours
	Semester: X	Individual assignment: paper/essay/etc.
Mode of study: on-campus, off-campus (distance learning)	Amount of credits (credit hours): XX (XXX)	Type and form of semester assessment: exam/credit; oral/written/ testing etc.

In addition, this section outlines the importance of ECTS modules for training high-skilled specialists, its correspondence with other ECTS modules included in the syllabus (preferably stating particular topics included in syllabi for these ECTS modules).

## 2. ECTS MODULE GOALS AND OBJECTIVES

**2.1.** The main goal of the ECTS module is to help students develop certain skills:

- «activity» + «object»;
- «activity» + «object»;
- ...

The main goal of ECTS module is defined by compiling a list of key competencies (ability to identify issues and implement effective solutions) that student shall demonstrate after passing a module.

**2.2.** The main objectives of ECTS module:

According to the requirements stated in the “Academic Subject Program”, the students are expected to demonstrate:

**Gained knowledge:**

- ...

**Acquired skills:**

- ...

ECTS module assignments are defined as the system of knowledge and skills, gained experience when stating the certain level of its complexity and specificity\*, allowing to define the necessary amount of time spent on studying the material and choose appropriate methods for students' progress assessment.

### 3. ECTS MODULE STRUCTURE

Section and topic titles	Amount of hours				
	Total	including			
		lectures	Practical (seminars)	Laboratory	SS
1	2	3	4	5	6
<b>Section 1** . Title</b>					
Topic 1.1. Title					
Topic 1.2. Title					
Final test 1					
...					
Total 1					
<b>Section 2. Title</b>					
Topic 2.1. Title					
Topic 2.2. Title					
Final test 2					
...					
Engineering Analysis					
Total 2					
Exam (credit)			(2)		30 (b)
<b>Total number of hours</b>					

### 4. LECTURE CLASSES

№	Lecture title and the list of main questions (the list of didactic materials, self-study assignments + reference sources)

### 5. PRACTICAL CLASSES \*\*\*

Main objectives of practical classes: \_\_\_\_\_

\_\_\_\_\_

№	Topics for practical classes
1	
2	

\* Suggests using Bloom's taxonomy

\*\* In case the ICTS module is divided into sections.

\*\*\* Section 5«Practical classes», 6«Seminars/tutorials», 7«Laboratory classes» shall be outlined if there are any.

Section 8 «Self-study» is necessary if there is enough study material to allocate additional hours for self-learning, that is also stated in Section 3 «ECTS module structure».

Section 9 «Individual assignments», 10 «Final tests» are necessary if the syllabus includes any.

...	
-----	--

## 6. SEMINARS/TUTORIALS

Main objectives of seminars: \_\_\_\_\_

№	Seminar Topics
1	
2	
...	

## 7. LABORATORY CLASSES

Main objectives of laboratory classes \_\_\_\_\_

№	Laboratory class topic	Total (hours)
1		
2		
...		

## 8. SELF-STUDY

№	Topic titles and self-study questions + reference sources	Total (hours)
1		
2		
...		

This section outlines ECTS module extracurricular assignments and topics suggested for self-study work, it also includes a list of key questions and reference sources.

This section is compulsory for those who study by correspondence, and in case of mixed-mode or blended learning approach implementation.

## 9. INDIVIDUAL ASSIGNMENTS

This section outlines the main objectives of giving individual assignments (engineering analysis, computational and graphical analyses, various papers, tests, etc.). The list topics for individual assignments is included in the curriculum.

## 10. FINAL TESTS

This section outlines final test samples divided into units (topics), as well as main values, objectives and methods of testing. Test tasks for each topic are included in the curriculum.

## **11. ACADEMIC PERFORMANCE RATING SYSTEM (APRS)**

This section outlines academic performance rating system description (final test assignments and grade boundaries, assessment criteria (grade descriptions) and requirements for passing semester attestation. APRS description might be presented in a particular annex to the curriculum. APRS requirements and methods of its development are provided in accordance with relevant guidelines\*.

## **12. GUIDELINES**

This section outlines a set of available study methods in order to develop guidelines on effective use of visual aids for training sessions, apply innovative teaching strategies and approaches, create methodological guidelines for diverse topics, etc. Thus, guidelines aim to accumulate academic staff's teaching experience and valuable strategies for ECTS module designing; that is a so-called "direction to action" or "road map".

## **13. SUGGESTED READING LIST**

### **13.1. Basic literature**

- 1.
- 2.
- ...

### **13.2. Additional literature**

- 1.
- 2.
- ...

The suggested reading list is made up of two parts: basic and additional.

The list of basic literature includes textbooks, teaching aids, lecture notes, teaching and methodological support of laboratory work, practical, seminars, individual tasks etc. Basic literature should be appropriately identified and be accessible to all students. The number of copies of basic literature shall correspond to accreditation requirements (1 book for 5 students). These copies shall be stored in the library (institute / faculty library or in the methodical office of the relevant department). Basic literature might be provided in e-form be accessible for all students, for example, in the electronic archive [ela.kpi.ua](http://ela.kpi.ua), electronic campus, the department official page etc.

Additional literature is intended for more in-depth study of individual sections, topics or credit module as a whole. The list also includes standards, dictionaries, reference books, etc.

## **14. WEB RESOURCES**

- 1.
- 2.
- ...

A list of websites is provided.



# **ANNEX G. INDIVIDUAL RESEARCH AND EDUCATIONAL PLAN OF A PHD STUDENT**

**Ministry of Education and Science of Ukraine  
National Technical University of Ukraine  
“Igor Sikorsky Kyiv Polytechnic Institute”**

## **RESEARCH AND EDUCATIONAL PLAN OF A PHD STUDENT**

\_\_\_\_\_  
(full name)

Institute/Faculty \_\_\_\_\_

Department \_\_\_\_\_

Speciality \_\_\_\_\_

Academic supervisor \_\_\_\_\_

\_\_\_\_\_

Training term:

Entrance year \_\_\_\_\_

Graduation year \_\_\_\_\_

Group \_\_\_\_\_

Mode of study: full-time/part-time/ by correspondence  
(please, tick)

Dissertation topic description \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Topic \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Approved at Academic Council meeting \_\_\_\_\_  
(Institute/Faculty)

protocol No. \_\_\_\_ dated \_\_\_\_\_

## INDIVIDUALIZED SCHEDULE OF A PHD STUDENT

<i>Name of discipline</i>	<i>Amount of credits</i>	<i>Attestation form</i>
<b>I semester</b>		
<b>APPROVED</b> <div style="text-align: right;">Academic supervisor _____</div>		

<i>Name of discipline</i>	<i>Amount of credits</i>	<i>Attestation form</i>
<b>II semester</b>		
<b>APPROVED</b> <div style="text-align: right;">Academic supervisor _____</div>		

<i>Name of discipline</i>	<i>Amount of credits</i>	<i>Attestation form</i>
<b>III semester</b>		
APPROVED Academic supervisor _____		

<i>Name of discipline</i>	<i>Amount of credits</i>	<i>Attestation form</i>
<b>IV semester</b>		
APPROVED Academic supervisor _____		

## INDIVIDUAL SCHEDULE OF A PHD STUDENT

Approved at Academic Council meeting  
 dated \_\_\_\_\_ protocol № \_\_\_\_\_  
 Head of Academic Council \_\_\_\_\_  
 (institute/faculty)  
 \_\_\_\_\_  
 (signature) (initials, last name)

<i>Year of studies</i>	<i>Curriculum description and guidelines for writing a dissertation</i>	<i>Publications of research results in academic journals</i>
1 <sup>st</sup> academic year		
2 <sup>nd</sup> academic year		
3 <sup>rd</sup> academic year		
4 <sup>th</sup> academic year		

PhD \_\_\_\_\_ «\_\_» \_\_\_\_\_ 20\_\_ .  
 (signature)

Academic supervisor \_\_\_\_\_ «\_\_» \_\_\_\_\_ 20\_\_ .  
 (signature)

**ACADEMIC RESEARCH PROPOSAL \_\_\_\_\_/\_\_\_\_\_ academic year**

<i>Content and structure of academic research proposal</i>	<i>Scheduled time</i>	<i>Mode</i>
<p align="center">Fall semester 01.10.20____ – 28.02.20____</p>		
<p align="center">Spring semester 01.03.20____ – 30.09.20____</p>		

PhD \_\_\_\_\_ «\_\_\_\_» \_\_\_\_\_20\_\_ .  
(signature)

Academic supervisor \_\_\_\_\_ «\_\_\_\_» \_\_\_\_\_20\_\_ .  
(signature)

## ACADEMIC RESEARCH ASSESSMENT REPORT

Continuous assessment up to 01.03.20\_\_.

Academic supervisor`s summary

Final report dated \_\_\_\_/\_\_\_\_ academic year up to 30.09.20\_\_.

Academic supervisor`s conclusions

Departments` recommendations

PhD`s report \_\_\_\_\_  
(full name)

approved at Department`s meeting \_\_\_\_\_  
dated « \_\_\_\_ » \_\_\_\_\_ 20\_\_ ., protocol № \_\_\_\_

Head of the Department

\_\_\_\_\_  
(signature) (initials, last name)

**Academic research proposal \_\_\_\_\_/\_\_\_\_\_ academic year**

<i>Content and structure of academic research proposal</i>	<i>Scheduled time</i>	<i>Mode</i>
<p align="center">Fall semester 01.10.20____ – 28.02.20____</p>		
<p align="center">Spring semester 01.03.20____ – 30.09.20____</p>		

PhD \_\_\_\_\_ «\_\_\_\_» \_\_\_\_\_20\_\_\_\_.  
(signature)

Academic supervisor \_\_\_\_\_ «\_\_\_\_» \_\_\_\_\_20\_\_\_\_.  
(signature)



## ACADEMIC RESEARCH ASSESSMENT REPORT

Continuous assessment up to 01.03.20\_\_\_\_.

Academic supervisor`s summary

Final report dated \_\_\_\_/\_\_\_\_ academic year up to 30.09.20\_\_\_\_.

Academic supervisor`s conclusions

Departments` recommendations

PhD`s report \_\_\_\_\_  
(full name)

approved at Department`s meeting \_\_\_\_\_  
dated «\_\_\_\_» \_\_\_\_\_ 20\_\_\_\_ ., protocol №\_\_\_\_

Head of the Department

\_\_\_\_\_  
(signature) (initials, last name)

**Academic research proposal \_\_\_\_\_/\_\_\_\_\_ academic year**

<i>Content and structure of academic research proposal</i>	<i>Scheduled time</i>	<i>Mode</i>
<p align="center">Fall semester 01.10.20____ – 28.02.20____</p>		
<p align="center">Spring semester 01.03.20____ – 30.09.20____</p>		

PhD \_\_\_\_\_ «\_\_\_\_» \_\_\_\_\_20\_\_.  
(signature)

Academic supervisor \_\_\_\_\_ «\_\_\_\_» \_\_\_\_\_20\_\_.  
(signature)

## ACADEMIC RESEARCH ASSESSMENT REPORT

Continuous assessment up to 01.03.20\_\_\_\_.

Academic supervisor`s summary

Final report dated \_\_\_\_/\_\_\_\_ academic year up to 30.09.20\_\_\_\_.

Academic supervisor`s conclusions

Departments` recommendations

PhD`s report \_\_\_\_\_  
(full name)

approved at Department`s meeting \_\_\_\_\_  
dated « \_\_\_\_ » \_\_\_\_\_ 20 \_\_\_\_ ., protocol № \_\_\_\_

Head of the Department

\_\_\_\_\_  
(signature) (initials, last name)

**Academic research proposal \_\_\_\_\_/\_\_\_\_\_ academic year**

<i>Content and structure of academic research proposal</i>	<i>Scheduled time</i>	<i>Mode</i>
<p align="center">Fall semester 01.10.20____ – 28.02.20____</p>		
<p align="center">Spring semester 01.03.20____ – 30.09.20____</p>		

PhD \_\_\_\_\_ «\_\_\_\_» \_\_\_\_\_ 20\_\_.  
(signature)

Academic supervisor \_\_\_\_\_ «\_\_\_\_» \_\_\_\_\_ 20\_\_.  
(signature)

## ACADEMIC RESEARCH ASSESSMENT REPORT

Continuous assessment up to 01.03.20\_\_.

Academic supervisor`s summary

Final report dated \_\_\_\_/\_\_\_\_ academic year up to 30.09.20\_\_.

Academic supervisor`s conclusions

Departments` recommendations

PhD`s report \_\_\_\_\_  
(full name)

approved at Department`s meeting \_\_\_\_\_  
dated « \_\_\_\_ » \_\_\_\_\_ 20 \_\_\_\_ ., protocol № \_\_\_\_

Head of the Department

\_\_\_\_\_  
(signature)

\_\_\_\_\_  
(initials, last name)

PhD  
(Full name)

---

defended (presented to the defense committee) a dissertation on the topic \_\_\_\_\_

---

---

---

to the members of Specialized Academic Council \_\_\_\_\_

---

## **ANNEX H. DEPARTMENT AS A BASIC STRUCTURAL UNIT**

### **1. General provisions**

Department is the basic structural unit responsible for educational and methodical aspects of providing students` training that corresponds to three qualification levels of higher education (obtaining of Bachelor, Master and/or PhD degrees) in one or several fields of study, related specializations, specialties and academic disciplines; comprising academic staff eager to ensure well-balanced combination of education, scientific and innovation activities to prepare competitive professionals.

The minimum number of degree holders majoring in the same discipline and graduating from the same Department shall be no less than 20 for Bachelor`s program, 15 for Master`s, and at least 3 PhDs per academic year.

Department shall be engaged in international activities, for instance, by taking part in various international projects, applying for EU grants and obtaining funding for its R&Ds by organizing international conferences, develop educational programs exclusively in English (syllabi, methodological, informational and staff provision of educational process, etc.).

Department functions within an institution/faculty and comprises academic staff, engineering and technical staff, teaching fellows, etc. Academic staff`s schedule is approved by Rector (Pro- Rector) of the university.

### **2. Department`s Primary Objectives**

The main objectives of Department`s staff member are as follows:

#### **Regarding educational process:**

- to organize and conduct educational process in accordance with requirements for each higher education level, mode of study, disciplines included in curriculums and ECTS modules syllabi;
- to ensure and monitor quality of educational activities in accordance with the Higher Education Standards Framework and other regulatory documents;
- to apply advanced teaching methods corresponding major achievements in science and technology;
- to implement advanced ICT training strategies (including mix-mode studying);
- to improve existing continuous assessment methods, including tests, exams and final assessments; testing at university level;
- to organize scientific-research training and supervise qualifying research papers;
- to ensure that examination board procedures are followed throughout the exam period and provide effective communication to and from examination boards;
- to organize and conduct admission examination at second (Master) and third (educational-scientific) higher education levels;

- to take measures to detect and avoid plagiarism cases.

In organizational work:

- formation of full-time personnel and staff schedule in the range of approved funds and standards;
- formation of the studies schedule in cooperation with the dean's office of the institute / faculty;
- creation of conditions for the scientific-pedagogical staff professional growth and the department staff, wants satisfaction of the individual in intellectual, cultural and physical development;
- organization and control of conducting occupations and practices by scientific and pedagogical department staff;
- maintenance of creative cooperations with higher educational institutions, trade organizations, enterprises, research institutes, other enterprises and organizations, regardless of ownership (including with foreign ones);
- assistance in retraining and raising the qualification of scientific and pedagogical workers of the department and control of these measures;
- organization and execution of methodological, scientific-methodical and scientific seminars, conferences, etc.;
- organization of cooperation with the departments, which give training other students of the specialty (specialization) other academic disciplines;
- organization of measures for vocational guidance and attracting persons for training in specialties / specializations of the department;
- organization of measures for attracting persons to postgraduate training and advanced training;
- organization of systematic communication with university graduates, including graduate students of the department;
- preparation of agreements for practice and employment documents for graduates;
- preparation of licensing and accreditation cases;
- organization of the results coverage of the department on information stands and in media;
- creation and maintenance of the sub-department website,
- organization of filling the necessary information of the university's electronic campus, the website of the department and other information resources that are created for coverage and support of the department's activities in the Internet;
- organization of educational and scientific work of the scientific-pedagogical staff with students through the website of the department;
- participation of the department staff in the work of expert councils, commissions, working groups of the Ministry of Education and Science of



Ukraine, the Attestation Board of the Ministry of Education and Science of Ukraine, specialized scientific councils for the defense of the dissertations of the doctor of sciences and doctor of philosophy;

- determination of the scientific rating and pedagogical workers of the department.

In the educational work:

- implementation of a set of measures aimed at the education of a highly developed personality in the spirit of Ukrainian patriotism, respect for the Constitution of Ukraine;
- appointment and organization of the training groups curators;
- execution of an event for students who keep within the legislation of Ukraine, moral and ethical norms of behavior both at the university and abroad, carrying-out of requirements of the Code of Honor of the University, careful attitude to the property of the University (buildings, premises, furniture, equipment, inventory, educational publications, devices etc.);
- raising the spiritual, cultural and educational level of student youth;
- execution of an event for the implementation of a healthy lifestyle in the student environment;

In the international activity:

- working out and implementation of a complex of measures for integration into the international educational and scientific space:
- analysis of international experience of training specialists on the department profile and its use in the educational process;
- organization of exchange practices with related departments of partner universities;
- informational and advertising work on recruiting foreign citizens and providing training for foreigners;
- participation in the execution of scientific and technical works on request or with the participation of foreign partners;
- participation in the implementation of international projects, programs;
- organization of relations with foreign graduates of the department, maintaining a database of foreign graduates of the subdepartment;
- facilitating the study and use of the scientific-pedagogical and scientific staff of the English department, obtaining international certificates;
- participation in international integration in the field of training through the implementation of the program "Dual Degree";
- organization, participation in international conferences, seminars, competitions, exhibitions;
- provision of revenues from various forms of foreign economic activity.

### **3. Organisation of Department's Activities**

The work of the department is organized and carried out in accordance with the Laws of Ukraine "On Education" and "On Higher Education", the Statute of the National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", Provisional Regulations on the organization of the educational process in the Igor Sikorsky Kyiv Polytechnic Institute, Regulations on the Institute / Faculty, Regulations on the Department of the Igor Sikorsky Kyiv Polytechnic Institute, normative acts of the Ministry of Education and Science of Ukraine and Igor Sikorsky Kyiv Polytechnic Institute.

The Department activity is carried out on the basis of the annual plan of the Department, covering the directions and tasks mentioned above. The work plan of the subdepartment is discussed and approved at its meeting.

The main issues of the Department are discussed at the Department meeting, and the decisions should be fulfilled by the colleagues.

The Department meetings are held at least once a month. The scientific-pedagogical and scientific workers of the department take part in the Department meeting. The Department meeting is considered valid, if it is attended by at least two thirds of workers for whom the Department is the main place of work. The Department decisions are taken by a simple majority of votes. The Department meeting is formalized by minutes, which is signed by the head of the Department (in the absence of the manager, who is his deputy) and the academic secretary of the Department. Other Department workers, workers of other Departments, also the workers of other Departments from other higher educational establishments, enterprises and organizations may be invited to the Department meeting. During discussing about candidates for competitive positions, the Department meeting can be conducted by the head of the institute / dean of the faculty, as well as a person authorized by the administration.

### **4. Academic Staff's Standards**

The authority of the Department is carried out by the head of the Department, which has a scientific or academic degree and experience of scientific and pedagogical work of not less than five years. The head of the graduation Department must have a doctor of science degree in the profile of the corresponding Department. The head of the Department is elected to this position on the competition by the Academic Council of the University. The head of the Department shall conclude a contract for a period of five years.

Replacement of positions of scientific and pedagogical workers is carried out in accordance with the Procedure of conducting competitive selection or election in competition at the replacement of vacant positions of scientific and pedagogical workers and the conclusion of labor contracts with them.

The structure of the Department shall include at least five scientific and pedagogical workers, for whom the Department is the main working place (full-time employees).

For the second (master's) level of higher education, the staff of the graduate department should include, for every ten graduates of the educational master's degree of one teacher, who has the qualification according to the specialty, degree or academic rank.

For the third (educational / scientific / educational-creative) level (doctor of philosophy / doctor of art), the personnel of the graduate department should include, for the calculation of every two applicants of the educational degree of the doctor of philosophy / doctor of art, one teacher who has a degree and / or academic rank, as well as qualification according to the specialty confirmed by scientific, scientific-pedagogical, pedagogical or other professional activity in the corresponding specialty for not less than seven kinds or results, listed in the license conditions.

The specialty providing group is the scientific and pedagogical and / or scientific staff of the department, for which the educational institution is the main working place and who personally participate in the educational process for the educational programs implementation by specialty at certain levels of higher education and meet the qualification requirements specified by the licensing conditions, namely, have the qualification in accordance with the specialty, as well as the level of scientific and professional activity, which is certified by the implementation of at least four types and results from the listed in licensed conditions.

This group must meet the following requirements:

- the number of members of the providing group is sufficient if one of its members has no more than 30 applicants of higher education at all levels, courses and forms of study in the corresponding specialty (for distance learning no more than 60 applicants);
- the proportion of those with a degree and / or academic rank is set at the highest level for which the educational activity is actually carried out and represents not less than 50 per cent of the total number of members of the providing group for a bachelor's degree, 60 per cent - a master's degree, a doctor of philosophy;
- the proportion of those who have a Doctor of science degree and / or a professor's rank is set for the highest level, which is actually carried out educational activities and is not less than 10 percent of the total number of members of the bachelor's degree group, 20 percent - a master's degree, 30 percent - Doctor of Philosophy / Doctor of Arts.

Licensing requirements regarding the types and results of professional activity of the SPS (scientific and pedagogical staff) in the specialty applicable to qualification recognition in the relevant specialty:

1) availability of scientific publications in periodicals that have been included in the scientific-methodological bases recommended by the Ministry of Education and

Science, in particular Scopus or the Web of Science Core Collection over the last five years;

2) availability of at least five scientific publications in scientific journals included in the list of scientific professional editions of Ukraine;

3) availability of a published textbook or tutorial or monograph;

4) scientific guidance (counseling) of the applicant who has received the document on awarding a scientific degree;

5) participation in international scientific projects, involvement in international examination, the presence of the title "international judge";

6) conducting training sessions on special subjects in a foreign language in the volume of not less than 50 classroom hours per academic year;

7) work in the expert councils on the examination of the dissertation of the Ministry of Education and Science or the sectoral expert councils of the National Agency for the Quality Assurance of Higher Education, or the Accreditation Commission, or their expert councils, or the inter-sectoral expert council on higher education of the Accreditation Commission, or three expert commissions of the Ministry of Education and Science / the indicated Agency, or Scientific-methodical council / scientific-methodical commissions (subcommissions) on higher education of the Ministry of Education and Science;

8) performance of the functions of a scientific supervisor or responsible executor of a scientific topic (project), or editor-in-chief / member of the editorial board of a scientific publication included in the list of scientific professional editions of Ukraine, or a foreign peer-reviewed scientific publication;

9) leadership of a schoolchild who won the prize place of the III-IV stage of the All-Ukrainian pupil's olympiads on basic subjects, II-III stage of All-Ukrainian competitions-defense of research works of pupils-members of the National Center "Small Academy of Sciences of Ukraine"; Participation in the jury of Olympiads or competitions "Minor Academy of Sciences of Ukraine";

10) organizational work in educational institutions in the positions of the head (deputy head) of the institution of education / institute / faculty / department (scientific institution) / branch / department or other responsible for the training of higher education graduates of the unit / department (scientific institution) / educational and methodological department (department) / laboratory / other educational / scientific (innovative) structural unit / academic secretary of the educational institution (faculty, institute) / responsible secretary of the selection committee and his deputy;

11) participation in the certification of scientific workers as an official opponent or member of the permanent specialized scientific council (not less than three one-time specialized academic councils);

12) presence of not less than five certificates of authorship and / or patents in a total of two achievements;

13) availability of guidelines / manuals issued for self-study of students and distance learning, lecture notes / workshops / methodological guidelines / recommendations with a total of three titles;

14) nurturings students who achieved the prize place at the 1st stage of the All-Ukrainian Student Olympiad (All-Ukrainian Student Research Contest), or the work of the Organizing Committee / Jury of the All-Ukrainian Student Olympiad (All-Ukrainian Student Contest), or the leadership of a permanently active Student Scientific Circle / problem group; management of a student who has become a prize winner or an international artistic competitions, festivals and projects, working as an organizing committee or as a jury member of international artistic competitions, other cultural and artistic projects; management of a student who participated in the Olympic, Paralympic Games, World and All-Ukrainian Universiade, World Championship, Europe, European Games, World Cup and European Championship stages, Ukrainian Championship; performance of duties of the trainer, assistant of the trainer of the national team of Ukraine on sports; performance of duties of the chief secretary, chief judge, judge of international and all-Ukrainian competitions; management of a sports delegation; work in the organizational committee, the judiciary corps;

15) availability of popular scientific and / or advisory (and / or controversial) publications on scientific or professional topics with a total of at least five publications;

16) participation in professional associations in the specialty;

17) experience of practical work in a specialty of not less than five years;

18) scientific counseling of institutions, enterprises, organizations for at least two years.

## **5. Academic Staff's Rights and Duties**

Scientific and pedagogical workers are those who, after their main working place in higher educational institutions, conduct educational, methodological, scientific (scientific-technical, artistic) and organizational activities.

The positions of scientific and pedagogical workers are selected via competition \* persons who have a degree or academic rank, graduates of the postgraduate study, as well as those who have a master's degree.

In some instances, in case of the impossibility of providing the educational process with existing full-time employees, vacant positions of scientific and pedagogical workers may be replaced by an employment contract until the competitive replacement of these positions in the current academic year.

Scientific and pedagogical workers have the right:

- to have the academic freedom, realized in the interests of the individual, society and mankind as a whole;
- to have the academic mobility for professional activity \*\*;
- to be protected by the professional honor and dignity;
- to take part in the management of the university, including to elect and be elected to a higher public administration of the university - the Academic Council of the University or its structural subdivision;

- choose the methods and means of training that provide the high quality of the educational process;
- to ensure the creation of appropriate working conditions, increase their professional level, organization of rest and living, established by law, regulations of the University, the terms of an individual labor contract and a collective agreement;
- To use library, informational resources, services of educational, scientific, sports, cultural and educational units of the university for free;
- to protect intellectual property rights;
- to have advanced training and internship at least once every five years;
- to participate in associations of citizens;
- to have social and pension provision in accordance with the procedure established by law;
- other rights which are provided by the Constitution of Ukraine, the Laws of Ukraine and the Charter of the Igor Sikorsky Kyiv Polytechnic Institute.
- to provide on the high scientific-theoretical and methodological level teaching of disciplines in accordance with the relevant work programs;
- to conduct scientific activity;
- to fully comply with the terms of the contract;
- to develop materials of educational and methodological support of educational process;
- to place materials of educational and methodological support of the educational process on the web resources of the departments, pages of teachers in the open access and in the system "Electronic Campus";
- during the academic year systematically work with the modules of the system "Electronic Campus";
- to constantly improve professional and general cultural levels, pedagogical skills, scientific qualification;
- to introduce new educational technologies, including electronic and mixed learning technologies;
- to adhere to academic integrity and ensure its compliance with education and training in education and research activities;
- to adhere to the norms of pedagogical ethics, morals, respect for the dignity of persons studying in higher educational institutions, instill in them love for Ukraine, educate them in the spirit of Ukrainian patriotism and respect for the Constitution of Ukraine
- to work systematically with the “Electronic campus” system units during academic year;
- to upgrade professional and culture-universal levels, pedagogical excellence, scientific skill continually;
- to introduce new educational technologies as well as electronical ones and the technologies of blended learning;

- to keep academic honesty and guarantee its abundance by the students in the educational process and scientific activity;
- to keep the norms of pedagogical ethics, morality, to respect the dignity of people, studying at higher educational establishments, to promote love for Ukraine, to educate them in the spirit of Ukrainian patriotism and respect to the Constitution of Ukraine and national symbols of Ukraine;
- to develop in students and Ph.D students independence, initiative, creativity;
- to inform Dean's Offices systematically about students' disruptive behavior, regular absence, delayed accomplishment of individual semester tasks and low current academic performance;
- to observe the Laws of Ukraine, other normative legal acts, Statute of Igor Sikorsky Kyiv Polytechnic Institute, Code of Honor of Igor Sikorsky Kyiv Polytechnic Institute, Internal Regulations of Igor Sikorsky Kyiv Polytechnic Institute and other executive documents of Igor Sikorsky Kyiv Polytechnic Institute.

## **6. Academic Staff's Time Management**

Academic time management comprises 36 hours per week (contracted endurance of working time). Work time of an academic includes time for accomplishment of educational, methodological, scientific, organizational work and other employment duties. Calculation of work time of academic is conducted according to Regulation on Planning and Accounting of Academic Load of Professors.

The Individualized Curriculum for Academic is a main document, which determines organisation of his work during academic year.

The Individualized Curricula are made by all academics (internal, part-time, working with hourly pay), envisaged at Department meeting and signed by the Head of Department. The Individualized Curriculum for Head of Department is signed by the Head of the Institute or by the Dean.

The work time schedule is determined by the schedule of auditorium classes and consultations, curriculum or schedule of control activities and other types of work, envisaged by the Individualized Curriculum for Academic for academic year. Academic should follow the stated work time schedule.

Scientific, methodological, organizational and educational work is planned and written down to the appropriate chapters of the Individualized Curriculum for Academic for academic year together with an indication of specific summative results.

Lists of the main types of methodological, scientific, organizational and educational work of academics have orientative character and by the decision of the Department can be completed with other types of work (taking them into account while academic rating).

Recommended enumeration of types of educational, methodological, scientific and organizational work for academics, scientists and educationalists is established by the Ministry of Education and Science of Ukraine.

Types of educational work for educationalists and academics according to their posts are established by the higher educational institutes by agreement with elective bodies of primary trade union organizations (trade union representative).

The scope of educational work of academic comprises their academic load in accounting hours, which is determined for a certain academic (within minimum and maximum) taking into account his accomplishment of methodological, scientific and organizational and educational work and particularity and structure of the subject matter, and also the amount of subject matters he teaches. This is also the case of the subject matters, which are introduced recently and demand a considerable time expenses of the academic to develop lecture courses, practical and discussion sessions, laboratory researches (computer trainings) and appropriate educational and methodological provision.

Maximum teacher load of a full-time academic should not exceed 600 hours per academic year (Article 56 of the Law of Ukraine on higher education).

Minimum teacher load of a full-time academic composes:

- Assistant, Teacher, Senior Teacher – 500hours;
- Assistant Professor, Candidate of Sciences – 450hours;
- Professor, Dr. hab. – 400 hours.

Minimum teacher load of a Head of Department (Assistant Professor) composes 350 (400) hours.

For academics, high-qualified specialists, who are engaged to 0.5 (0.25) part-time pedagogical work, work time is planned as per calculation of the average week endurance 18 (9) hours with proportional decrease of maximum and minimum necessary scope of academic load and other types of work.

At determining of Individualized Curricula for Academics the Head of Department should take into account the specifications of every type of work and ensure the optimal utilization of creativity of every academic. Lectureship should be planned only for professors and assistance professors in the scope not less than 100 hours per an academic year. Encouragement to the lectures of senior teacher is possible as an exeption by the Head's of Institute or Head's of Department permission for the currenc academic year. It is desirable to plan the holding of practical, seminar and laboratory sessions at least with one study group of the lecture batch.

The reason for planning of academic load for the academic is the appropriate extracts from route curricula, which are passed by graduating Departments to the Departments, which provide the teaching of the appropriate subject matters. These extracts determine the name of the subject matter, the general amount of academic hours and their classification by types of sessions, individualized semester tasks, control activities, type of semester control as well as number of students in study groups (separately – contract students and international students).

At the Departments based on the data of academic workload calculation, the Plan of Academic Workload for Departments' Academics is developed.



For the period of business trips, illness, sojourn on advanced training and so on, an academic is out of execution of all types of work, envisaged by Individualized Curriculum. His academic load for this period is accomplished by other Department's academics within 36-hour working week and maximum academic load by the effect of decrease of the scope of methodological, scientific, and organizational work for them or by means of engagement, in a certain order, of academics with hourly rate wage. After academic turnout, for the period, rested to the termination of academic year, the appropriate academic load and the scope of methodological, scientific, and organizational work are considered to him within 36-hour working week.

Progress of execution of the individualized curricula for academics should be checked systematically by discussion at Department meetings with the critical estimating of the quality of execution of every type of work, demand of the personal explanation of the reasons of low performance by every executor, late fulfillment or nonfulfillment of the work, envisaged by the plan. The question on fulfillment of individualized curricula is one of the main while progress review of academic year at Department meeting.

# **ANNEX I. ACADEMIC RULES FOR STUDENTS**

## **1. Students` Rights**

Student of the University has the rights to:

- choose the forms of education;
- safe and harmless studying, working and living conditions;
- working career in extracurricular time;
- additional paid leave due to studying at primary employment, shortened work time, and other facilities for studying statutorily required for individuals, who combines work with study;
- free-of-charge use of libraries, information files, educational, scientific and sport services, and other departments of the University;
- free access to knowledge through electronic educational technologies and the modern scientific content posted on the website of the University;
- use manufacturing, cultural-educational, residential, recreational bases of the University;
- dormitory providing during studying term in due order;
- participate in researches, development works, conferences, symposia, seminars, exhibitions, competitions, represent own works for publication;
- participate in educational, scientific, research, sports, art and social activities held in Ukraine and abroad, in accordance with law;
- participate in the discussion and resolving in the improvement of the educational process, research, scholarships, leisure time organizations, living conditions, recreation;
- making suggestions on the conditions and size of tuition fees;
- participate in public associations;
- participate in the public authorities university, institute, faculty activities, the Academic Council of the University, the student government;
- choose disciplines within the ambit of educational program and curriculum plan, in the amount of not less than 25% of the total ECTS credits, provided for this specialty and DHE. In addition to the above, applicants for a certain degree of higher education have the right to choose disciplines offered by other degrees of higher education, in agreement with the head of relevant institute/faculty;
- study simultaneously at several educational programs, as well as at several universities, on condition getting only one higher education on every degree for the state (local) budget;
- academic mobility, including international;
- social assistance in cases established by law;
- be enrolled in pension insurance record, according to the law of Ukraine “On Compulsory State Pension Insurance” in periods of full-time study at the University, graduate, doctorate, on condition of voluntary insurance contributions;
- academic leave or a break in studying preserving individual rights of the applicant of higher education and renewal of studying in order established by the central executive body in the sphere of education and science;

- participate in the organization of the individual curriculum plan
- moral and/or material incentives for academic, research, public work, art and sport achievements, etc.
- protection from all forms of exploitation, physical and psychological violence;
- free interning in enterprises, institutions and organizations and also labor compensation during carrying out functions, according to the law
- vacation leave at least eight weeks of the academic year;
- getting purposeful concessional loans for higher education in order determined by the Cabinet of Ministers of Ukraine;
- appeal the actions of the University administration, officials and teaching staff;
- free information providing for studying in available formats using technologies, which take into account disability due to health reasons (for persons with special educational needs);
- special education and rehabilitation support and free access to the infrastructure of the University according to the medical and social indications for the having of disability due to health reasons;
- review the programs of any of the disciplines;
- review classes of teaching stuff according to the schedule;
- transfer to the place of public order in due order;
- obtain information on trends in the labor market of the relevant structures of the University;
- attend classes at other institutes/departments with the permission of directors / deans of institutes/departments on condition schedule compliance of the educational process at own institute/faculty;
- other rights provided by the law.

## **2. Students' Duties**

Student at the University undertakes to:

- comply with the law, the Statute of Igor Sikorsky KPI, the Code of Honor of Igor Sikorsky KPI and the internal regulations of Igor Sikorsky KPI;
- fulfill the requirements of safety, industrial hygiene, fire safety, provided by relevant rules and regulations;
- fulfill the requirements of the educational program and curriculum;
- attend the classes and control measures according to the curriculum and schedule<sup>11</sup>;
- inform a dean office on time in cases of impossibility to attend classes for a valid reasons, pass (repass) exams, credits, modular control works, etc<sup>12</sup>.;

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<sup>11</sup> Students who have missed the classes for a valid reason which require compulsory makeup work (laboratory work, etc.) must carry out in a special set time for it in a certain department order.

<sup>12</sup> In the absence at classes, exams, modul control works for valid reasons a student shall not later than the day inform the dean office and during three days after outing to submit supporting documents.

- take part in the self- service in classrooms and dormitories, to help to maintain proper order in the areas surrounding academic buildings, campus and other cultural and welfare objects that cater to university students;
- carefully and neatly apply with property of University (premises, furniture, equipment, inventory, book fund, appliances, etc.); it is prohibited without the permission of responsible persons and take out things and different equipment from the laboratories, training and other areas;
- comply with monitor's request of academic group within his/her powers;
- worthy bear the title of student, respect the human dignity, scientific and pedagogical staff and all members of the working group, to take care of the university authority, to prevent illegal and immoral acts, be disciplined and tidy;
- comply with the requirements of collective agreement between the administration and trade union committee of students of Igor Sikorsky KPI;
- everytime strive for moral, cultural and physical improvement.

For breach of duty and violation of internal regulations of Igor Sikorsky KPI the head of appropriate department (institute, faculty, department, etc.) may impose disciplinary foreclose on students or raise the issue of sending down from the University to the rector.

### **3. Group Monitor's Rights and Duties**

- The monitor is the representative of students of the academic group before dean's office for organizational support of educational process in the academic group and for management of student's staff of group in attracting it to all official actions, carried out by dean's office of institute / faculty and administration or on their assignment.
- The monitor represents interests of students of the academic group in dean's office of institute / faculty and on main Department, cooperates with the curator of the relevant academic group and the deputy director of the institute / dean of faculty for educational work. The monitor of the academic group participates in work of bodies of student's self-government of institute / faculty and university.
- The monitor of the academic group can be one of the successful students in study which differs in high moral and organizational qualities, enjoys authority and respect among students of the academic group and scientific and pedagogical staff, has positive impact on staff of the academic group and possesses organizing abilities.
- For appropriate execution of the duties the monitor can be financially and morally encouraged with administration and bodies of student's self-government of institute / faculty and university.
- The monitor bears responsibility for performance of duties and use of the rights provided by the present Provision and observes confidentiality in individual work with students of the academic group.

### **3.1. Group Monitor's Rights**

**The monitor has the right:**

- to recommend the best students of the academic group for material and moral encouragement for excellent study, active participation in research, public, sports and cultural and mass work and so forth;
- to make offers on imposing on students of administrative punishments for violation of subject and labor discipline, regulations of Igor Sikorsky KPI;
- to present interests of the academic group at purpose of grants and the settlement to the dormitory;
- give instructions to students about the organization of educational process, public works and execution of the group of academic assignments before the administration of the institute / faculty and university.

### **3.2. Group Monitor's Duties**

**The monitor is obliged:**

- in due time to inform students on the order of administration, dean's office, the scientific and pedagogical workers conducting occupations on the organization of educational process and other official actions;
- to take part in planning, organization and carrying out the actions connected with teaching and educational process of the academic group;
- to prepare and hold meetings of students of the academic group where the condition of training and discipline, other topical issues from life of student's collective are discussed;
- to conduct daily and carefully a log-book of work of the academic group;
- to watch a condition of discipline and behavior in the academic group, safety of the educational equipment and stock in audiences, laboratories, educational cases;
- to carry out individual work with students of the academic group in relation to the requirements of the curriculum, Regulations of Igor Sikorsky KPI ;
- to provide participation of students of the academic group in events which are held at institute / faculty and university involving of students of the academic group;
- to inform quickly dean's office about failure of classes , misunderstanding in schedule etc.;
- to inform quickly authorities of student's self-government and administration of institute / faculty about violation of the rights of students, the conflicts with scientific and pedagogical workers, other problems which are important for students;
- to participate in meeting of monitors of the academic groups;
- to participate in work of the commissions created at the institute / faculty and university according to the solution of conflict situations;

- after passing tests and exams to receive the final information about results of exams and to bring it to the attention of students and verify them in dean's office of the relevant institute / faculty.

### **3.3. Group Monitor's Duties' Charging and Withdrawal**

The monitor is elected at meeting of the relevant academic group. At the first year the incumbent monitor is appointed by the head of the institution / faculty upon the recommendation of curator, who carries out duties of the monitor until election of the monitor at meeting of the academic group.

## **4. Readmission, transfer, expulsion and suspension of study**

### **4.1. Expulsion**

The reasons for student`s expulsion are:

- completion of a course according to the relevant educational program;
- own wish;
- transfer to another educational institution;
- failure to comply with requirements of the curriculum as follows:
- unsatisfactory results of two interim assessments (on the 8<sup>th</sup> and 14<sup>th</sup> weeks) in three and more ECTS modules;
- getting three and more unsatisfactory grades based on the results of semester control (except extra academic discipline);
- unsatisfactory results of Final Assessment;
- academic backlog at the end of the established period of its elimination;
- failure to comply with the time limits or nonfulfillment of practical training programme;
- if the student did not start the studies without a valid reason within 10 days from the beginning of the first semester in accordance with certain LHE, or in case of missing classes in the class without good reasons during the semester
- violation of agreement (contract) terms concluded between the institution of higher education and the person studying, or an individual (legal) person, who pays for such training;
- for health reasons based on medical consultative board (MCB) conclusions;
- violation of the requirements of the Statute or Internal Regulations of Igor Sikorsky Kyiv Polytechnic Institute, safety and health protection, safety rules, workplace hygiene, fire safety, provided by the relevant rules and instructions, may be basis for expulsion after exhaustion of other means of influence (or impossibility of their application) and in case of personal acquaintance with them of a degree-seeking student;
- other reasons, required by the law.

In case of academic backlog based on the results of semester assessment, no more than two ECTS modules, the student may be allowed to eliminate such academic debts in the next semester (except for the last one). Corresponding elimination of academic debts under an individual student's curriculum is carried out on his / her application, by approbation of the heads of graduates and professors from the discipline of the departments and is documented by the order of the head of the institute / dean of the faculty. Transferring academic debts for the next semester deprives a student of the right of a scholarship.

Students who have asked for honourable dismissal during the examination sitting, if at least one academic debt at the time of the application is available, can be deducted only for failure to complete the curriculum.

Students who did not eliminate academic debts in due time are expelled from the university by the order of the rector whose draft is submitted by the head of the structural unit after the expiry of the specified term of academic debts.

Students expulsions are carried out by the order of the rector on the proposal of the head of the institute / dean of the faculty, in agreement with the student self-government bodies, with the students' scientific society and the primary trade union organizations of students (people who are members of the labor union organization).

A person, deducted before the end of the education program after preparation of the exit checklist, receives the academic certificate of the established form<sup>13</sup> and the original document on the previously obtained education. The Academic Certificate contains information on the results of the training (a list of CMs studied by the student, indicating the number of ECTS credits and the results of the final control of the university assessment system, as well as a description of the university assessment system and a table of statistical distribution of positive assessments (Distribution Guide), delivered within an appropriate program or a field of knowledge (a spreading score table) that shows how the scoring scale is actually used in this program).

Information about the results of the training, the names of the credit modules and the grades received are included in the academic certificate separately for each semester. If a student previously studied in another educational institution, the academic reference shall indicate the names of the institutions in which the exams, credits from certain disciplines (CM) were completed. The transcript of records does not include credit modules from which the student received unsatisfactory grades.

Students, who were deducted from the first year and did not pass exams and credits, issued the transcript of records stating that the student did not pass exams and credits.

Registration of the transcript of records is carried out in a special book. To the educational record of the student for transfer to the archive the following things are added: a copy of the transcript of records signed by the rector and sealed stamp, certified by the head of the institute / dean of the faculty, a student's record book, student ID card

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<sup>13</sup> Ref. "On amendments being made to the order of MES of Ukraine from 12.05.2015 № 525", the order of the Ministry of Education and Science of Ukraine from 22.06.2016 № 701

and sealed with a signature of the head of the institute / dean of the faculty academic student card with indication of the student's performance curriculum.

#### **4.2. Suspension of Study**

Academic leave is granted to people who have interrupted their studies. People who have been granted epy academic leave are not deducted from the number of applicants for higher education and retain certain rights of the applicant of higher education in accordance with the legislation and this Regulation.

After the academic leave, those who have interrupted their studies are resumed for studies without pay for a break in the training.

Students studying at the University may be granted the following types of epy academic leave:

- academic leave because of health reasons is a break in education, the right to which a higher education student receives in the event of a reduction in the capacity for work due to violations of the functions of the organism, which are caused by acute illnesses that require long-term regenerative treatment; exacerbations of chronic diseases or frequent illnesses (more than one month per semester); anatomical defects that do not allow rehabilitation during treatment;

- academic leave due to participation in academic mobility programs is a break in the education provided to a higher education student if training or internships in educational and scientific institutions (including foreign countries) makes it impossible to fulfill the curriculum (plan of scientific work) ;

- academic leave in connection with military service is a break in education, the right to which a higher education student receives in case of its mobilization, to call for a regular military service, admission to military service under a contract in accordance with the law;

- academic leave for family and other personal circumstances is a break in the education provided to a higher education student on the basis of his own motivated application and relevent supporting documents;

- maternity leave, childcare leave until the child reaches the age of 3 years, and in the case when the child is sick and in need of home care - before the child reaches the age of 6, provided in accordance with the Labor Code of Ukraine .

Granting of the academic leave is made by the corresponding order of the rector, indicating the type and grounds for the granting of academic leave and its terms.

The maximum duration of academic leave due to health status, due to participation in academic mobility programs, family and other personal circumstances, is set to one year. If necessary, the duration of such academic leave may be extended for one more year.

Academic health leave is granted to applicants for higher education on the basis of the conclusion of the medical consultative board (MCB) of the student clinic, and where



it is absent - the head physician of the prevention and treatment facility (PTF), which carries out medical care for students.

If the patient's state of the applicant of higher education and his distance from the medical center that conducts the medical care of the students do not give him the opportunity to go there, he can apply for medical assistance to the territorial medical center and, after the treatment, receive an extract from the history of the illness to submit it to the MCB of the student clinic .

Granting of academic leave for health reasons to applicants of higher education of evening and correspondence (distance) forms of education is carried out on the basis of the conclusion of the MCB of the territorial PTF.

The conclusions of the doctors of departmental and territorial PTFs about the need to provide students with academic leave for the state of health (as well as their release from physical labor or the postponement of the terms of the practice) need confirmation by the decision of the MCB or the chief physician (head) of the medical service center that serves the students.

In exceptional cases, when the state of the patient and his distance from the student-centered health care facility do not allow doctors who carry out medical care for students, conduct a medical examination of the student, the management of the University (with the consent of the student-care center) makes a decision to grant an academic leave on the basis of the conclusion of the MCB of the PTF where the student is being treated.

To receive a doctor's decision on an expert decision to an institution that serves an institution of higher education, a request is filed from the University, a detailed extract from the history of the disease from the medical institution under the supervision of the student and his full medical examination is conducted. When expert decision on the need to provide academic leave for health reasons are taken into account: terms of temporary disability (more than one month per semester); the specifics of the educational process; the degree of adaptation of the applicant of higher education; possibility of deterioration of health (transition of an acute illness into a chronic, access to a disability) if the person continues the training.

On the basis of consideration of the extract from the history of the disease and the data of the medical examination of the MCB (in the case of its absence, the chief physician), with the participation of the University's representative (if necessary), concludes that the student must be granted an academic leave or his transfer to a state of health education to another specialty or to another higher educational institution. The conclusion of the MCB indicates the recommended length of academic leave due to the state of health.

To decide on admittance to higher education graduates who complete the academic leave for health reasons, it is necessary to submit to the medical center of the students two weeks before the semester, a certificate of the state of health from the hospital, which watched the sick during academic leave, and undergo a comprehensive

medical examination. On the basis of which the applicants for higher education issued a conclusion of the MCB for submission to the university.

Students enrolled in the university on a contractual basis, with payment from ministries and departments, legal entities and individuals, may be renewed and admitted to classes after the completion of academic leave with the consent of the customers who finance their training.

Admission to the study of higher education graduates who have completed the academic leave is carried out by the order of the rector on the basis of a student's application, which is submitted no later than two weeks from the beginning of training. In the case of academic leave for health, the statement of the MCB of the student polyclinic (daytime study form) or the conclusion of the MCB of the clinic at the place of residence (correspondence form of education) that the state of health allows you to continue training in the chosen specialty is attached to the application.

Admission to the study of people granted academic leave is usually carried out during the holidays. Applicants for higher education who did not file within the prescribed time documents for admittance to study are deducted from the university as those who didn't start studying in due time.

The conditions for admittance to study at the end of an academic leave must be told to the student by the head of the structural unit within the terms and in accordance with the procedure established by the Law of Ukraine "On Citizens' Appeal".

All controversial questions regarding the provision of academic leave are considered by the University leadership, and academic leave on the state of health – the leadership of the University in conjunction with the medical center.

#### **4.3. Remedial Education**

Remedial Education is a repeated passing by an able-bodied student of higher education (which is not eligible for academic leave for health reasons) a course of study for a certain semester, the curriculum of which the student did not complete in full, including for valid reasons: due to long diseases associated, in particular, with epidemics, frequent diseases (more than one month per semester); business trips; difficult family circumstances, in particular, the need to care for family members, etc.

First-year students who enrolled in full-time secondary education do not enjoy the right to remedial education.

The reason for granting a student the right to remedial education may be the failure to complete the examination sitting of the individual curriculum of the current semester, including for valid reasons, confirmed by the relevant documents.

Certificates of illness of the applicant of higher education during the semester are certified in the treatment center, which serves him, and submitted to the dean's office within one week after the end of treatment.

Provision of a re-course of study due to prolonged or frequent illnesses for students of evening and correspondence forms of education is carried out on the basis of the conclusion of the MCB of the territorial PTF.

For the decision of doctors to make an expert decision to the PTF, which serves the highest educational institution, a request is submitted from the university, a detailed extract from the history of the disease from the medical institution under the supervision of the student, and his full medical examination is conducted. When expert decision on the need to provide a second course of study for a long or frequent disease are taken into account: terms of temporary disability (more than one month per semester); the specifics of the educational process; the field of knowledge and specialty; degree of adaptation of the student; possibility of deterioration of health (transition of an acute illness into a chronic, access to a disability) if the student will continue training.

The issue of granting a student the right to re-education is decided by the rector on the proposal of the director of the institute / dean of the faculty before the beginning of the corresponding semester and is issued by the corresponding order.

Repeated training is carried out from the beginning of the semester, the curriculum of which the student did not complete.

Students who study under a state (regional) order and have the right to re-education due to prolonged or frequent illnesses, continue to study at a state (regional) order and have the right to appoint a minimum regular scholarship if they were entitled to it in the previous semester.

In all other cases, the student's right to re-education is possible only in the case of study (transfer to study) at the place for the funds of individuals or legal entities.

Students who are left to re-training may be overwhelmed by disciplines, of which, according to the results of the final control, they had an assessment not lower than the one established by this Regulation.

Recalculation is carried out on the basis of a student's application and with the consent of the director of the institute / dean of the faculty in accordance with clause.

#### **4.4 Student Transfer**

Individuals who study in higher educational establishments can be transferred from:

- One educational establishment to another;
- A major (educational program) to another within the same field of knowledge;
- A mode of studying to another within the same major;
- A source of financing to another within the same educational program.

Students, studying contractually, can be transferred with the consent of the party that provides the financing.

As a rule, the transfer process takes action during summer or winter holidays.

The transfer is feasible only to the educational program of the same level, from which the student has been expelled, to the same or previous year. The transfer of the

students who study (studied) in the second year (magister) level of higher education, is possible only to the same major.

The transfer is impossible for the students who receive state-funded education, at the last semester, according to the educational program of the particular major, after submitting the current year's academic performance results.

The transfer is possible in accordance with the university's availability of licensed seats according to the specific level, course and major.

The transfer from one higher educational establishment to another is performed according to the agreement between the directors of both establishments. Students who studied at the non-accredited higher educational establishments, cannot be transferred.

Student who wishes to transfer to another educational establishment, submits an application for a transfer to the director of the current higher educational establishment, and upon receiving the director's written consent – submits it to the director of the higher educational establishment, where the student wishes to transfer. The following documents are provided along with the application: transcript of the records for the entire study period up to the point of transfer; copy of a two-party (three-party) agreement concerning the studying at the previous educational establishment (if such agreement has been made).

The application should be reviewed within two weeks, and the student should be notified about the terms of transfer or the reasons for rejection.

In the event of the acceptance and compliance with the terms of the transfer, rector issues an order according to which the student is allowed to attend classes, and sends a request for the student's educational record to the previous higher educational establishment.

The transfer within the bounds of the university, upon the request of the student is performed in accordance with the rector's order. The review is conducted by the university's director/dean of the faculty (in accordance with the pitch of the deputy for academic and supervisory activities).

The following documents are added to the student's application:

- In case of transfer to a different major, when the transfer is performed to another Basic Structural Unit of the university: copy of the academic student card for the entire study period up to the point of transfer; copy of the two-party (three-party) agreement on education (if such agreement has been made);
- In case of transfer to the vacant seat financed by the state budget, for the students who study contractually (within the same major): character profile provided by the supervisor of the group; feature recommendation from the Basic Structural Unit of the students' self-government body; documents pertaining to the student's financial situation (if necessary).

During the decision-making process, the following points are taken into consideration:

- The availability of the vacant seats licensed by the university;

- The availability of the vacant seats within the state-funded education;
- The applicant's ability to comply with the academic calendar according to the major and the mode of studying;
- Consent of the head of the Basic Structural Unit;
- Consent of the client who finances the student's training (in the circumstance of the transfer of a student who studies at the expense of the local budget, expense of the ministers or departments, or contractually).

In all the cases concerning the review of the transfer, the directors of the Basic Structural Units must consider the necessity of mandatory compliance with the state pitch and the availability of the licensed seats.

The applicants, who requested to be transferred to the state-funded education, in case of rejection, are entitled to study contractually (provided the licensed seats are available).

Determination of the academic deficiency during the transfer is performed in accordance with cl. 4.6. "Academic Performance Admission."

Elimination of the academic deficiency can be a condition for the transfer or be a part of the student's individual study plan, throughout the first semester after enrollment. In the process of the transfer, student's enrollment in the next semester after the one the student has completed – here the academic deficiency shouldn't exceed 10 ESTC credits.

The director of the higher educational establishment, which the student has studied in previously, upon receiving an application, issues an order for the student's expulsion on the grounds of the transfer to another higher educational establishment, and within a week's time sends the student's record to the new educational establishment.

The director of the higher educational establishment where the student transfers to, upon receiving the student's record, issues an order for the student's enrollment.

The transferred students are entitled to enrollment (transfer) and to receive the state-funded education with the consent of the students' self-government bodies, according to an established order. The transfer of the students to the first year, on the basis of complete general secondary education, to receive state-funded education, is prohibited. In rare instances, these questions are subject to be reviewed by the Minister of Education and Science of Ukraine.

In the case of that the accreditation certificate of the educational program (major) expires and the higher education establishment fails to receive a new accreditation certificate – students, who receive state-funded education, are entitled to transfer to another higher education establishment, where such educational program is accredited, in order to complete the state-funded education in accordance with the Order of transfer of the people who wish to obtain higher education, receive state-funded education at other higher education establishments or in order to complete the state-funded education, approved by the Cabinet Decree of Ministers of Ukraine since November 11, 2015, №927.

## **4.5. Readmission**

Students who were previously expelled before the ending of the academic year, can be readmitted within the educational program of a particular level.

The readmission is conducted disregarding the reasons for expulsion, the duration of study break, mode of study, major and field of knowledge, type of program, sources of financing, forms of higher educational establishment's property, taking into consideration the applicant's ability to comply with the educational program. As a rule, the readmission is conducted during the holiday break.

The readmission of students to the first year, on the basis of complete general secondary education, is prohibited. Rector retains the right to renew onto the second year, the individuals, with complete general secondary education, who were expelled from the first year, on the condition that the individuals in question eliminate the academic deficiency before the beginning of the year.

Expelled students at the bachelor's level are entitled to readmission, in accordance with the individual program, in order to obtain the junior bachelor's degree within the same or related major at another educational establishment.

The readmission is conducted within the bounds of the university's availability of licensed seats at a particular level, year and major. The excess of the licensed seats is possible in rare instances, with a preemptive permission from the Ministry of Education and Science.

The application for readmission must be reviewed within two week's period (excluding the vacation period). Transcript of records must be added to the application. The terms for the documentation of the individuals who used to study abroad – are established by the higher educational establishment.

According to the results of the review, the students must be notified about the terms of the readmission or the rejection. Individuals whose academic deficiency does not exceed 15 ECTS credits, can be renewed at the beginning of the next semester, on the condition of elimination of the deficiency before the beginning of said semester. The established order for the recalculation of disciplines/credit modules (results) and the elimination of the academic deficiency are outlined in cl. 4.6 "Academic Performance Admission."

Academic performance admission at the informal educational establishment, must include the following stages:

- Submission of the educational declaration and other documents (materials) which can explicitly or implicitly ascertain the provided information;
- Formation of a board which determines the possibility for an admission, forms and terms of attestation in order to determine the results obtained in the process of informal education;
- The attestation in order to determine the results obtained in the process of informal education.

The academic admission is not performed in the circumstance of obtaining the academic results in the process of informal education before obtaining education at a particular educational level.

The academic admission is not performed in the circumstance of obtaining the academic results in the process of informal education while at the temporarily occupied territories of Ukraine or districts of Donetsk and Lugansk Regions.

Rector renews the students with the consent of the students' self-government bodies and students' union organizations (members of the union).

Renewed students are entitled to be enrolled (transferred) to the state-funded education according to the established order of the university with the consent of the students' self-government bodies.

Applicants who applied for transfer (readmission) to the seats at the expense of the state budget, in the circumstance of being rejected, are entitled to readmission on a contractual basis (in case of availability of licensed seats).

The applicant must be notified about the terms of the transfer (readmission) or the reasons for rejection by the head of the Basic Structural Unit within certain period and in the order established by the law of Ukraine "On Citizens' Appeals."

#### **4.6. Academic Performance Admission**

The task of determining the study period and the admission of exam credits, performing a transfer of the module credits and eliminating the academic deficiency arises when the students who have studied in other (including foreign) educational establishments and wish to continue their studies at Igor Sikorsky Polytechnic Institute, when the students who go on to study at Igor Sikorsky Polytechnic Institute within the program of academic mobility, for the students who had previously studied at Igor Sikorsky Polytechnic Institute and for certain reasons interrupted their education.

The academic performance admission is usually carried out during the holiday period (before the beginning of the year according to a particular schedule). The academic performance admission of the credit modules, which are provided by the curriculum within the current semester, and may be carried out during the semester, but necessarily before the semester control has begun. The academic performance admission for students enrolled on the basis of an individual curriculum is carried out in accordance with the terms defined by the individual curriculum.

The academic performance admission of the academic mobility programs is based on previously agreed curricula and/or certain individual parts (credit modules/curriculum) which are agreed upon by partner universities.

The grounds for the academic performance admission is the Transcript of the Records (record of educational achievements) provided by the student, or the Annex to the Diploma of Prior Higher Education. The academic certificate must be sealed by the university at which the student had previously studied; must include a list of credit modules, indicating the number of credits for each module and the results of the final

assessment according to the university's evaluation system, as well as a description of the institutional assessment system and a table of statistical distribution of positive assessments provided within the bounds of the relevant program or field of knowledge (Evaluation Table) which shows how the assessment table is utilized within the program. Assessment tables are developed in a standardized format for specific groups of students who study in educational programs belonging to the same field of knowledge. Such groups should be statistically reliable in terms of both the number of students and the number of academic years that are taken into account when developing these tables.

Evaluation table is the basis for the conversion (transfer) of marks. The conversion (transfer) of marks is based upon two tables of point distribution of two control groups within different university/national assessment systems.

Example of conversion (translation) of marks:

University's evaluation table									
«Sufficient» 15%		«Satisfactory» 30 %		«Good» 35%		«Very Good» 11%	«Excellent» 9%		
⇓		⇓		⇑		⇑	⇑		
10 4%	11 5%	12 8%	13 11%	14 13%	15 15%	16 17%	17 12%	18 15%	
French assessment table (positive marks 10...20)									

Decisions concerning the determination of the study period and the admission of the exam credits are reviewed by the director/dean of the faculty on the basis of the recommendation from the board. The board is created in accordance with the order of the director/dean of the faculty. The head of the graduating department is appointed as the head of the board, according to the student's specialty/major.

In addition to the transcript of records, in order to make a decision, the board may request copies of the programs of specific educational disciplines (programs of the corresponding credit modules), certified at the higher educational institution in which the student had studied these modules.

Academic results can be admitted within the scope of the credit modules, in accordance with the relevant program.

Academic results which were obtained by the student while studying by the non-accredited educational programs (with the exception of studying in recognized higher educational establishments, including foreign, whose educational programs are verified by the university) cannot be admitted.

The board may recommend: full admission, limited admission and non-admittance.

Full admission is recommended when a credit module in another university is included in the corresponding schedule at Igor Sikorsky Polytechnic Institute and coincides with the planned academic results (competences, knowledge and skills) or has insignificant differences, and is close in scope and content (not less than 75%). In this case, by the order of the director of the institute/dean of the faculty, the recalculation of



the credit module is performed along with the conversion (according to the distribution tables) of the marks according to the scale adopted by the university. The results of credit module readmission are added to the academic student card, a record book and a Annex to the diploma (indicating which educational institution received these results). Academic certificate (statement of academic achievements) is kept in the student's educational record. In addition to the diploma, upon the student's request, module credits that have been additionally acquired outside the curriculum during the period of studying within the mobility program may be included.

Limited admission is recommended in case when credit modules at another university are recognized but not fully, and for some subjects, additional reassessment is required. In this case, recalculation of the credit modules can be performed on the basis of the results of an individual task, a trial or an interview. The reassessment, by the order of the director of the institute/dean of the faculty, is conducted by the department of the corresponding educational discipline. According to the results of reassessment, the commission determines the number of ECTS credits and the marks for the respective credit modules.

In case that there's no compliance with the requirements of the relevant educational program which is set to develop certain competences, knowledge and skills – academic results are not admitted and exam credits are not provided.

According to the curriculum of the educational program, the unrecalculated credit modules equal academic deficiency and period for its elimination needs to be determined. The number of non-admitted credits should not exceed 10 ECTS.

## **5. Academic Mobility of Students**

Academic mobility is an opportunity for the applicants to study, teach, practice or pursue research activities in another higher educational establishment (scientific institution) on the territory of Ukraine or abroad.

The right to academic mobility can be implemented on the basis of international agreements on cooperation in the field of education and science, international programs and projects, agreements on cooperation between Igor Sikorsky Polytechnic Institute and the national higher educational institution (scientific institution) or its major structural unit, between Igor Sikorsky Polytechnic Institute and foreign universities (research institutions) and their basic structural units, and also may be realized by the participant of educational process at Igor Sikorsky Polytechnic Institute on his own initiative, supported by the administration and the leadership of Institute / faculty of Igor Sikorsky Polytechnic Institute, on the basis of individual invitations, and other mechanisms.

Academic mobility of the university is being implemented for:

- improving of the quality of higher education;
- improving the efficiency of scientific research;
- improving the competitiveness of university graduates on the Ukrainian and international markets of educational services and labor;

- enrichment of the individual experience of participants of educational process relative to other models of creating and disseminating knowledge;
- involvement of the world intellectual potential to the national educational process on the basis of bilateral and multilateral agreements between partner institutions;
- establishment of internal and external integration relations;
- harmonization of educational standards of partner institutions.
- implementation of mobility programs can be done by sending participants of the academic mobility programs on / for:
  - studying in joint dual programs;
  - studying in the framework of an international / national grant or scholarship;
  - individual studying (financing for own account);
  - participation in exchange programs between partner universities;
  - passing of practice;
  - participation in summer schools;
  - internship (including linguistic);
  - participation in the research;
  - teaching.

The main types of academic mobility are:

- step mobility – studying in institution of higher education, different from the permanent place of study of the participant in the educational process, for the purpose of obtaining a higher education degree, as evidenced by a document (documents) of higher education or a higher education degree from two or more higher educational institutions;
- credit mobility – studying in higher education institution, different from the permanent place of study of the participant in the educational process, for the purpose of obtaining the appropriate competences and studying outcomes (knowledge and skills), as well as ECTS credits that will be recognized at a higher education institution of a permanent place of study national or foreign participant in the educational process. At the same time, the overall studying period for such participants in the programs of credit mobility remains unchanged.

Forms of academic mobility for the participants of the educational process, receiving educational degree at bachelor, master and doctor of philosophy in national universities, are:

- studying in academic mobility programs;
- language training;
- scientific training.

The general procedure for organizing programs of academic mobility on the territory of Ukraine and abroad is regulated by the Resolution of the Cabinet of Ministers dated

## **6. Inclusive Education**

The purpose of inclusive education in the Igor Sikorsky Polytechnic Institute is to ensure equal access to quality education for people with special educational needs by organizing their studying based on the application of personality-oriented studying methods, taking into account their individual peculiarities.

Students with special educational needs are people with psychophysical development disorders (hearing, vision, speech, musculoskeletal disorders, etc.) who are not contraindicated in their chosen specialty (specialization) and who require special studying conditions.

Formation of conditions for receiving by the person with special educational needs of high-quality education in the Igor Sikorsky Polytechnic Institute aims at:

- expansion of access to qualitative higher education using of modern information technologies;
- realization of a personal approach to studying process in accordance with the features and capabilities of each student;
- expanding university resources to improve the quality of education;
- formation of positive attitude towards students with special educational needs at other university students.

### **6.1. Main Focus Areas**

The main areas of work for the organization of studying for people with special educational needs at the university are:

- providing information about the university and the conditions of study;
- providing students with the problems of the musculoskeletal system with free access to the university infrastructure (in accordance with the re-equipped classrooms, etc.);
- provision of additional technical equipment: computer programs for the visually impaired, sound amplification systems for hearing-impaired persons, special furniture for persons with musculoskeletal disorders and others like that;
- development of individual curricula and analysis of their implementation;
- application of distance studying;
- the use of educational content to expand the informational, educational space and provide students with additional methodological materials;
- monitoring the quality of studying of people with special educational needs;
- formation of complex (technical, organizational, pedagogical, psychological, social) support of people with special educational needs.

## **6.2. Details of Organization of Educational Process for individuals with Special Educational Needs**

Admission for studying of people with special educational needs is carried out in accordance with the Rules of admission to the Igor Sikorsky Polytechnic Institute.

At the beginning of the studying year, the contingent of students with special educational needs, who are enrolled in the first year, are studying at the graduation departments, as well as receiving information from the University Admission Committee about the existing impairment of functions and special needs in the studying process.

The studying of people with special educational needs is conducted in accordance with the curricula of the specialty (specialization) of the corresponding LHE provided they are adapted to the existing ones in the Igor Sikorsky Polytechnic Institute resources and opportunities to complete the curriculum.

In some cases, taking into account the individual characteristics of students with special educational needs, it is possible to study according to an individual plan or on an individual schedule. An individual schedule is given by the director of the institute / dean of the faculty on the basis of the student's application in the presence of the recommendations of medical institutions, graduation department and curator of the studying group.

The organization of the educational process (theoretical studies, the periodic and semester control, practical training, final certification of students, etc.), realization of the academic rights of higher education graduates with special educational needs is carried out and is accompanied in accordance with the current legislation, this Regulation and other normative documents of the university that regulate the studying of students in the Igor Sikorsky Polytechnic Institute.

## **ANNEX J. ORGANISATION OF STUDENTS' PHYSICAL EDUCATION**

The International Charter for Physical Education and Sports (UN Session, 1998) requires the creation of favorable conditions for the realization of the right of students to study physical culture, meeting the needs of students in physical education, health and fitness services in the university, promoting healthy lifestyles and introducing relevant principles and ideals.

Physical education in the Igor Sikorsky Polytechnic Institute is conducted in the mode of study sessions and sports-mass work.

The task of physical education in the Igor Sikorsky Polytechnic Institute is:

- education of students of attachment to the values of physical culture throughout life in personal and professional activities;
- formation of students of methodical and practical skills and abilities from physical education, adaptive physical education, physical rehabilitation and mass sports as components of a complete harmonious and safe life;
- formation of students' motivation for a healthy lifestyle;
- providing students with the proper level of functional and morphological indices, physical qualities, motor skills, physical capacity;
- preparation of students for participation in various sporting events;
- promoting the development of students of world-view, professional and civic qualities by means of physical education and sports.

### **1. Organisation of Educational Process for the Discipline “Physical Education”**

The educational process of physical education is based on the principles:

- multilingualism, which envisages the creation of conditions for a wide choice of students for means and forms of physical education for training and participation in sporting events that would meet their inquiries, interests, state of health, physical and technical readiness, sports qualifications;
- individualization, differentiation and systematization of the educational process of physical education.

Training sessions on discipline «Physical education» are conducted in the traditional form, based on the innovative pedagogical technology of free choice of students' forms of motor activity (types of sports).

Taking into account the material and technical base of the university and the qualitative composition of scientific and pedagogical workers, 15 departments were formed according to the types of sports (motor activity).

A separate subdivision is the department of special medical groups for students with disabilities in health and disabilities.

Physical education involves:

- 1-2 courses for the preparation of bachelors for inclusion in the curricula of the non-credit discipline «Physical education» (4 hours per week with reporting in the form of two attestations and a score in each semester);
- 3-4 courses of preparation for bachelors and in the magistracy – in the form of sports-and-mass work.

For organizing and conducting practical classes, at the beginning of the academic year, students of academic groups from different institutes / faculties are divided into divisions according to the types of sports taking into account the interests of students, their physical and motor (technical) readiness, sports qualification and state of health (main and preparatory group).

Students with deviations in health are engaged in the training groups of the department of special medical groups.

The transition from one educational institution to another (specialization in types of psychological activity) can be carried out after the end of the studying year in the established manner, and in the case of a medical prescription – within a year.

The number of students in physical education groups is calculated in accordance with the normative requirements adopted by the Igor Sikorsky Polytechnic Institute and may restrict safety of certain types of sports, the capacity of sports halls (playgrounds), the peculiarities of working with students with disabilities in health conditions.

Initial medical control and distribution of students to medical groups (basic, preparatory and special) for physical education is carried out by doctors of the student clinics of the Igor Sikorsky Polytechnic Institute on the conclusions of the results of compulsory medical examination (annually by the rector).

The doctors of the student polyclinic responsible for institutes / faculties carry out medical support and work in cooperation with the scientific and pedagogical practitioners of physical education.

Visiting pools of the sports complex is carried out according to the certificate set for students. The issue of certificates relies on doctors responsible for institutes / faculties.

Dismissal of students from studies is carried out in accordance with the order of the rector of February 25, 2016, No. 1-45 «On approval of the instruction on the issuance, extension and registration of documents certifying the student's temporary disability». Temporary dismissal from practical classes on physical education is entrusted to the doctors of the student clinics of the Igor Sikorsky Polytechnic Institute according to the rules and terms of treatment.

Exemption from practical classes of persons with disabilities of physical health (disabled persons) is carried out by the medical-consultative commission of the city student clinics for one semester. Such students study discipline and report in the theoretical form, in accordance with the envisaged section of the work curriculum (for students with disabilities in the state of health).

All participants in the semester educational process of physical education are instructed on the rules of safe conduct at the venues (gyms, swimming pools,

playgrounds) and provision of classes (locker rooms, inventory storage places, etc.), rules of insurance during exercises, rules for the provision of the first medical care and are obliged to adhere strictly to safety and hygiene requirements.

The state requirement for identifying student swimming skills is independently of the type of sport or motor activity once on the schedule of the faculty of physical education.

Students who do not know how to swim are given the opportunity to study for the expansion of the discipline during the semester (if necessary longer) for the working program of physical education (swimming for the inexperienced).

Assessment of academic achievements of students in the discipline «Physical education» is based on the principle of personal achievements of the student, provided by the predicted program of incoming, current and foreign (intermediate attestation) control.

Responsible intermediaries from among the scientific and pedagogical staff of the educational departments are appointed by the decision of the Department of Physical Education to coordinate the interaction of scientific and pedagogical workers and the dean's offices of the institutes / faculties, work with the student sporting activity, and sports work by the decision of the faculty of physical education.

## **2. Extracurricular Process of Physical Education, Health Promotion and Mass Sports**

Motor activity with the recreational purpose, mass sports with the purpose of self-actualization and maintenance of the sports traditions of the university, availability of sports bases is guaranteed by a collective agreement between Igor Sikorsky Polytechnic Institute, Statute of Igor Sikorsky Polytechnic Institute, Concept for organization of sports health improvement work at the university (order of NTUU «Kyiv Polytechnic Institute» dated 04.11.2011). The organization and conduction is carried out on the basis of the Regulations on the Sports and Technical Center «Kyiv Polytechnic», the Regulations on Sports Clubs, the Regulations on the Sports Complex of the Igor Sikorsky Polytechnic Institute, Strategy for the development of Igor Sikorsky Polytechnic Institute for 2012-2020 (conceptual provisions) and an action plan for its implementation, plans for the work of student self-government bodies.

Student Sports Games is a traditional annual event, held in popular sports in accordance with the regulations. Within the framework of the Sports Games, separate competitions for students with disabilities are foreseen.

The annual calendar plan of sporting events, events for the annual evaluation of preparedness of the population of Ukraine is formed in accordance with the guidance documents of the Ministry of Education and Science of Ukraine, Igor Sikorsky Polytechnic Institute, institutes / faculties.

Extracurricular work of scientific and pedagogical workers who train teams of the university for participation in student competitions of higher ranks are regulated by the Regulations on sports clubs.

Students-winners and sports prize-winners who defended the honor of the university at high brands competitions and their coaches are encouraged at the university level.

Coordination of events of mass sports relies on the department of educational work.



## **ANNEX K. INSTITUTE OF SUPERVISORS**

The supervisors in Igor Sikorsky Polytechnic Institute are one of the main forms of participation of scientific and pedagogical employees of university in teaching and educational work with students. The supervisors intended for providing full assistance to students of university at adaptation to new conditions of training, increasing the level of their social consciousness, increasing the interest in knowledge acquisition, professional and scientific work.

The scientific and pedagogical worker enjoying authority can be the supervisor of the academic group, differs in high moral qualities, possesses big pedagogical skill and organizing abilities and can provide positive educational impact on students.

The order of appointment, the organization of work, forms of the reporting of the supervisor, and also his additional duties and the rights are defined by the Provisions about the supervisor in Igor Sikorsky Polytechnic Institute approved by the order of the rector.

### **1. Supervisors' Right**

The supervisor of the academic group has the right:

- independently choose forms, methods and pedagogical working methods with students within the current legislation;
- in common with a student's asset define time and a venue of classroom and out-of- class educational actions;
- to receive in dean's office, at the department, in a human resources department information concerning the academic progress and a subject matter of students of the academic group. To participate in development and the approval of the individual curriculum of the student;
- to participate in discussion and to propose on the questions concerning students of the academic group (purpose of grants, encouragement for progress in study, scientific, sports, cultural and mass work, granting a place in the hostel, imposing of collecting for violation of a subject matter, public order, etc.);
- if necessary to attend studies of students in which he is engaged, to be present at elimination of the academic debt by the student at a meeting of the commission;
- to address to the head of department with suggestions about improvement of educational work and improvement of conditions of studying and life of students;
- to express on behalf of the department gratitude to parents for excellent study and parenting;

- to initiate consideration of questions in the direction of the activity at faculty meeting.

## **2. Supervisors' Duties**

The supervisor of the academic group is obliged to:

- keep «The log of the supervisor» (in any form) in which to fix data about students of the academic group, their success, labor discipline, participation in public life, and also the plan of educational work of the academic group and the course of its performance;
- systematically report about quality of studying of the academic group and discipline of students at faculty meetings;
- inform the head of the department about the facts of student violations of the internal rules of the Igor Sikorsky Polytechnic Institute and the Rules of Internal Order in student dormitories of the Igor Sikorsky Polytechnic Institute;
- participate in meetings of the commissions on prevention of offenses among the persons who study in the Igor Sikorsky Polytechnic Institute, if the facts of misconduct by students of the ward of the academic group are considered;
- if necessary to inform parents and heads of the enterprises, establishments, organizations who pay for studying, about quality of studying and discipline (behavior) of students;
- to carry out individual work with students of the academic group and to provide advice in the solution of educational and vital problems.