



STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

VILNIAUS GEDIMINO TECHNIKOS UNIVERSITETO
ORLAIVIŲ PILOTAVIMAS PROGRAMOS (601H41001)
VERTINIMO IŠVADOS

EVALUATION REPORT
OF *AIRCRAFT PILOTING (601H41001)*
STUDY PROGRAMME

at VILNIUS GEDIMINAS TECHNICAL UNIVERSITY

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Išvados parengtos anglų kalba
Report language - English

Vilnius
2013

DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	<i>Orlaivių pilotavimas</i>
Valstybinis kodas	601H41001
Studijų sritis	Technologijos mokslai
Studijų kryptis	Aeronautikos inžinerija
Studijų programos rūšis	Universitetinės studijos
Studijų pakopa	Vientisosios
Studijų forma (trukmė metais)	Nuolatinė (5)
Studijų programos apimtis kreditais	300
Suteikiamas laipsnis ir (ar) profesinė kvalifikacija	Aeronautikos inžinerijos magistras, orlaivių pilotas
Studijų programos įregistravimo data	2010-02-22

INFORMATION ON ASSESSED STUDY PROGRAMME

Name of the study programme	<i>Aircraft Piloting</i>
State code	601H41001
Study area	Technological sciences
Study field	Aerospace Engineering
Kind of the study programme	University Studies
Level of studies	Integrated
Study mode (length in years)	Full-time (5)
Scope of the study programme in credits	300
Degree and (or) professional qualifications awarded	Master of Aeronautical Engineering, aircraft pilot
Date of registration of the study programme	22/02/2010

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The Centre for Quality Assessment in Higher Education

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I. INTRODUCTION

The assessment report is based on the material of Self Assessment Report and onsite observations for the study programme *Aircraft Piloting* provided by Vilnius Gediminas Technical University. The study programme is carried out mainly by the Department of Aviation technologies and the Flight training unit. The self assessment of Vilnius Gediminas Technical University was carried out during 2012, and the self assessment report is dated on December 2012. The remote evaluation was performed in January-February 2013. The onsite evaluation was carried out by the entire evaluation team on 27th March 2013 on the premises of Vilnius Gediminas Technical University with all concerned parties, including the administration of the University, the staff responsible for preparation of SAR, the students, several alumni and social partners including prospective employers and the responsible Ministry. The integrated programme of *Aircraft Piloting* is registered in 2010 and had no previous assessment therefore no outcomes of external evaluations of the programme exist for use for improvement of the programme.

II. PROGRAMME ANALYSIS

1. Programme aims and learning outcomes

The aim of the programme *Aircraft Piloting* is to “educate a specialist with a Master’s degree in Aeronautical Engineering as well as licensed specialist with air transport specialist qualifications” (SAR p.10). It may be mentioned that VGTU is the only institution in the Baltic region offering a full scope of aviation related degrees.

The learning outcomes are distributed into four groups: knowledge, cognition, special skills and general abilities (SAR pp.11-12):

Z1. Mathematics: mathematical analysis, differential and integral calculations, differential equations, digital methods, theory of probability, statistics, MATLAB.

Z2. Nature and its phenomena, their quantitative expressions and simulation.

Z3. General knowledge of the field of technological sciences.

Z4. Aeronautical knowledge of aircrafts and their systems.

Z5. Knowledge of air navigation and flying.

Z6. Liberal arts and social sciences, law, management and economics for broadening their world outlook.

Z7. Knowledge of correct professional pilots’ English and Lithuanian language.

29. Students in integrated study programme “*Aircraft Piloting*” will have cognition needed for the application of scientific research in aeronautics:

S1. Understanding of general theoretical fundamentals of mathematics and other natural sciences, competence to combine theory and practise, to perform laboratory works and experiments, to interpret acquired information.

S2. Understanding of basics of social society development and problems.

S3. Understanding of principles of aircraft system operation, organization of air navigation and performance of flights.

S4. Understanding of aviation English phraseology.

30. Students in Aircraft piloting integrated study programme will acquire special skills needed for the practical work as a pilot and to carry out scientific research in aeronautics:

SG1. Ability to apply theoretical knowledge during practical aircraft piloting.

SG2. Ability to carry out scientific research and generalize results.

SG3. Ability to communicate in English on IV level.

31. Students in integrated study programme “Aircraft Piloting” will acquire general abilities linked to lifelong learning:

BG1. Ability to co-operate, to present the results of work in an appropriate way and in one foreign language.

BG2. Ability to plan time rationally, to show creativity, motivation, innovation, enthusiasm and discipline.

BG3. Ability to work in a team, effectively cooperate with colleges and borderland specialists, to defend one’s position with arguments.

The programme aims and learning outcomes are well defined and clearly describe knowledge and skills that graduates of the *Aircraft Piloting* programme should have. The programme is also published on Vilnius Gediminas Technical University internet website (<https://medeine.vgtu.lt/programos/programa.jsp?sid=F&prog=72&rus=U&fak=8&metai=2013>). It is clearly presented with aims, learning outcomes and program details (detailed description of programme subjects) and is well publicly available.

The programme *Aircraft Piloting* is in line with strategic planning of Government of Republic of Lithuania and agreement between VGTU and Boarder Guard and the quantity of graduates of the programme is well proven by demands of labour market (SAR Annex 5).

There is collaboration with the Military Academy in the frame of which a group of the students is also studying at the Academy, parallel preparing for an officer’s degree. Other students will be mostly employed by civil aviation companies, and Civil Aviation Administration (CAA) is very supportive of this programme, offering the possibility of graduates being internationally licensed after the necessary additional training practice.

The content of the programme is based on academic requirements and in conformity with Lithuanian Republic Law on Science and Education and other legal acts.

The programme aims and learning outcomes are consistent with type and level of studies and level of qualifications offered. The programme is oriented to preparing of aircraft piloting licensed specialists, who are also able to carry out research in aeronautical field. The study programme *Aircraft Piloting* is every year certified by Civil Aviation Administration.

Programme aims, learning outcomes and study course units have clear links and result in good level of study results and professional qualification.

The name of the programme, its learning outcomes, content and the qualifications offered are compatible with each other.

2. Curriculum design

Aircraft Piloting is an integrated 5 years study programme with the volume of 300 credits. The curriculum design meets legal requirements. It is to draw attention that separate requirements for integrated study programs in VGTU are in preparation stage (SAR p.16) however the requirements of first and second cycles are taken into account. During visit it was stated by programme administration that these regulations will be prepared in 2013 and implemented.

The scope of the programme is sufficient to ensure learning outcomes. The sequence of study subjects is structured logically. The themes of subjects are not repetitive.

In the following some detailed comments concerning the course units constituting the curriculum will be given. Some of the course unit descriptions are too general and repeat the same valid, but not very informative criterion lists. The discussions on site helped somewhat to clarify individual course contents but in some cases the subject course outcomes should be clarified. Apart from the above general remarks the Expert team wants to criticize the following subject contents:

- *Physics* subject is too general and does not offer a proper foundation to specialisation specific important areas, such as aerodynamics, as it was confirmed by several students.
- The principles of digital design, which enable understanding the basics of operation of digital equipment (including the understanding of failures caused by electronic or electrostatic noise and other operational hazards), cannot be found in the course unit description.
- The skills of computer programming and program understanding included in the curriculum are not sufficient, even for preparing the master theses. Because of this the thesis supervisors have to teach additional programming to the students who need that.

Sufficient programming skills would be utterly necessary for any scientific research work and partly also for practical work in the field.

- In the subject *General navigation* the course description is too short and the method of teaching and training, further the learning outcomes cannot be clearly identified.
- The main competence in the subject *Fundamentals of flight* is too general and weak. The impression is made by the course description that this is very motley subject without a central concept, this subject needs a revision.
- *Air transportation management* is too general, it is not clear what competences are transferred within this subject, employers requested more explicit management related knowledge.

Summarizing the above remarks it would be advisable to include some of the areas mentioned above that are missing (entirely or partially) in the curriculum.

During the visit both alumni and students have expressed opinions about some fundamental science subjects (such as *Physics*) having outdated materials and respective teachers applying outdated methods of lecturing. Similar remarks were expressed about *Aviation History* subject. Further, these subjects' content should be closer related to aeronautic field.

Each year after the defence of the final theses the committee discusses the final theses, their results and possible improvements (SAR p.15). Furthermore the students can provide their opinion in the questionnaire, provided in VGTU website, following next link <http://medeine.vgtu.lt/studentams/login.jsp> (SAR p.36). The programme each year is revised and updated, the changes in the study programme bringing latest knowledge from the branch of aeronautical engineering. The content of the subjects is consistent with the type and level of the studies. Graduates have theoretical and practical knowledge and skills for applying to job as pilots or any other specialists in aeronautical field.

While in the programme aims and learning outcomes it is clearly stated that graduates of the programme should possess the necessary skills to carry out scientific (obviously research type) work, most of the subjects point towards offering descriptive knowledge, or practical knowledge and skill, but very little methodological approaches potentially leading towards innovations and knowledge discovery. In case of many subjects (e.g. mathematics, electrical engineering, information technologies, microprocessors and digital systems) a deeper scientific and professional framework could help with this problem. In this respect in the present form although the programme meets the expected level of a master's curriculum it could not be a proper base for PhD studies. Some of the education staff helps with this problem by motivating students with extracurricular activities.

The scope of the programme is sufficient to ensure the learning outcomes in terms of education of good experts in theoretical and practical aircraft piloting; however it is questionable whether many creative scientists will graduate this programme. It was a general opinion that the programme essentially improved compared to its predecessor programmes, from the practical skills and in depth specific knowledge of the specialisation points of view, which fact was equivocally confirmed by all stakeholders present.

Some of the up-to-date achievement in science and technology seem to be missing from the curriculum (see critical comments' list).

Because *Aircraft Piloting* programme is very similar to *Aircraft Traffic Control* programme alumni express the wish to split these two programs more, to make them specialized. However the programme has improved in theory and that is evaluated positively. Organization of practice has improved and more attention to English language is paid. An interest in helicopter training was expressed by students and alumni, however SAR p.25 shows improvement of programme in this direction by purchasing 2 helicopters for training needs. The quality of final thesis should be improved towards strengthening research contents. According to the SAR the programme curriculum is available at the university webpage and thus publicly accessible.

3. Staff

The staff providing the study programme in general meets the legal requirements. However, 24 of the staff (all lecturers and assistants) hold only a master's degree, among these staff only 3 take part in a PhD programme. Considering that senior staff (full and associate professors) are only 17; this is not an appropriate statistics.

According to the legal requirement for staff, teaching integrated study programmes it is definitely recommended that a much larger number of university educators (practical trainers exempted) should work on obtaining a PhD degree. The duration of PhD studies is typically 4-6 years, thus by the time of completing the degrees the above mentioned percentages may be maintained.

The evaluation team learned that VGTU's conditions for enrolling in PhD studies are rather strict, either requesting high final marks or considerable initial scientific activities by the applicants and often younger staff members do not meet these criteria. It is worth while considering a special agreement between the doctoral board of VGTU and the Institute of Aviation, enabling more intensive enrolment in PhD. studies by the staff of the latter.

The number of full professors is decreasing and the age structure points to the imminent danger of soon having virtually no professors among the staff – unless associate professors carry on with more intensive research and educational activities development.

While studying the publication list of the teaching staff it is clear that a considerable part has never published any papers outside of Lithuania, while almost all other staff members have only been active within the narrow region, mainly in the Baltic States or, in some cases in Eastern-Central Europe. Publications in Western European conference proceedings are extremely rare and overseas conferences do practically not occur in the lists. There are a number of ISI journal publications, but the overwhelming majority is published within Lithuania, the remaining few in broader regional journals. No world leading scientific journal publications can be found at all.

The above facts point to the assumption that most of the teaching staff, even professors are less involved in research activities than it is desirable. The lack of methodological approaches mentioned in II. 2. is very likely at least partly a result of this situation.

In summary: it is strongly recommended that the majority of junior teaching staff enrol in respective PhD programmes as soon as possible, and all senior staff take part in – possibly international – research and development projects.

Many EU programmes support international mobility within Europe, such visits might be the starting point to being involved in international research projects as well. According to the SAR and the on site impressions the turnover of teachers is minor. This fact is supported by the age structure of the senior staff. There is no mentioning of international visitors since 2011, and even before that the number of annual visitors are very small (1, 1, 4).

The statistics for outgoing mobility provided in the SAR (typically 2 visits per year abroad) is not sufficient. While a few senior staff participate regularly in international committee meetings and conferences the remaining members are virtually excluded from all kinds of international mobility.

4. Facilities and learning resources

The premises for studies of *Aircraft Piloting* programme are adequate both in their size and quality, meeting occupational safety and hygiene requirements of modern standards.

Institute has adequate teaching and learning equipment both in size and quality. There are 2 computer laboratories each equipped with 12 computers with specialized software, used in study process. Students of the *Aircraft Piloting* programme perform their practice in Flight Training Unit belonging to AGAI of VGTU. AGAI acquired Kyviskes aerodrome with infrastructure and currently renovating it. After renovation Institute will have new premises for simulators and laboratories. Currently 13 airplanes (4 new) are available to pilots training. Flight simulator on personal computer base of 12 working places is also available. Two new helicopters are being purchased by the Institute.

University library has a large amount of literature used for modules of general education and fundamental sciences. AGAI reading room has enough literature in Lithuanian and in English languages in the study field of Aeronautics Engineering. The resources are updated and have recent materials in the field of aeronautics. There is good access to scientific journals and databases. The list of periodical scientific journals is (SAR p.26):

Nr.	Title
1.	Aerospace Science and Technology
2.	AIAA Journal
3.	IEEE Transaction on Aerospace and Electronics Systems
4.	Journal of Aircraft
5.	Journal of Aerospace Engineering
6.	Navigation
7.	Aviapanorama
8.	Vestnik aviaciji i kosmonavtiki
9.	Aviacijos pasaulis (Aviation world)
10.	Aviation

The University community has access to a number of VGTU library subscribed databases: EBSCO Publishing, eBooks on EBSCOhost, Emerald Engineering eJournals Collection, Springer Link Engineering Collection Books, SciVerse (Science Direct), Taylor & Francis, SAGE Journals Online, Ebrary and others. VGTU members have access to VGTU library created DB: VGT02 – "VGTU scientific publications"; VGT03 – "VGTU in publishing"; VGT04 – "VGTU scientific journals"; VGT05 – "VGTU library subscribed foreign journals". (SAR p. 26).

European Structural Funds projects made it possible that new course materials were developed in Lithuanian language, based on international sources. Newly developed course materials in Lithuanian language are also available for students via website of the Department of Aviation Technologies: General knowledge of the aircraft (devices, measures of radars, computer systems of aircrafts); Prof E. Pileckas, General knowledge of the aircraft (construction, systems, equipment); S. Janavičius, Principles of flight. Assoc Prof E. Lasauskas and other, mentioned in SAR p.26-27.

This is not entirely true for the basic scientific and introductory subjects, where in several cases literature older than 15-20 years is used (confirmed by the students, and alumni, further by the Annex of SAR).

Summarising the above: the premises are adequate both in size and quality, the teaching and learning equipment and practice sites are sufficient and adequate, teaching materials are accessible.

5. Study process and student assessment

The admission requirements are well-founded. It is carried out during general admission and based on the general procedure accepted by the Republic of Lithuania. It is necessary to have completed secondary education. There are no entrance exams, however health test and additional test are obligatory to pass in order to be admitted. Applicants to the study programme must get a health certificate (form No. 047 AVIA) from expert-doctor's commission of civil aviation, which proves their health meets first class health requirements. The additional tests are: The test of physical fitness consists of track events: 100 m, 3000 m and pull-ups for men and sit-ups for women. The students of the study programme *Aircraft Piloting* participate in the test of professional feasibility because they must have intrinsic features and competence for this profession. The test is prepared according to requirements of JAA (JAR – FCL 3 Flight Crew Medical Requirements) and recommendations of European organization of safe air navigation (EUROCONTROL) (SAR p.27). The aim of the tests is to detect the applicants that are not suited for the study programme, because of its specific.

Study process is organized to ensure adequate provision of the programme and the achievement of the learning outcomes. In senior courses lectures are planned during 4 days, reserving one day for individual work or flying practice. Examinations and credit tests are prepared according to requirements of University. Additional 14 tests (Exam E2) have to be taken during study time in order to have permit to take exam in CAA for obtaining a pilot licence. Students are also encouraged to participate in research activities by presenting their research results of final thesis in young scientists' conference. They also have possibility to participate in students' mobility programmes. AGAI have signed student exchange programmes with the University of Zilina, Technical University of Brno, Warsaw University of Technology, VIA University College in Denmark, Riga Technical University and Estonian Aviation Academy, but till now students activity in mobility programs is low. The reasons for this are very strictly defined modules of the speciality and a difficulty in finding similar modules at other institutions. In the time of visit it became clear that there are more reasons of low students mobility related to the issues of pilots' legally regulated training. However during the visit it became obvious that students mobility issues are developing and in the nearest future 2 students are planning to visit foreign institutions.

Institute ensures an adequate level of academic support. Information system and webpage provides necessary academic information. Students get personal e-mail addresses, have possibility to use remote educational system. There is support from the administration side in solving problems, consulting or helping to find a pilot job. Institute is also providing social support by appointing places in dormitory.

Social support is good. If students are in need of social support, they can apply and get one. The whole process is governed by the Lithuanian government and the University possesses some additional funds. Those who need it usually also receive it.

The assessment system of students' performance is clear. The assessment system is approved by the Senate of the University. So it is clear and easy to understand why the student was evaluated this or another way. Moreover, if the student is not satisfied with the evaluation, there is appeal system available at the university.

During the visit it became clear that some of the students' remarks about curriculum design, mentioned in II.2, are not taken into account.

The information on the programme quality improvement results is not public enough (SAR p.37), however, a part of its material is published in the journal "Aviacijos pasaulis" ("Aviation World") and in the newspaper of Vilnius Gediminas Technical University "Inžinerija" ("Engineering"). It is offered in web page <http://www.agai.vgtu.lt/> and at exhibition of studies and publicly available on VGTU website.

Professional activities of the majority of graduates meet the programme providers' expectations as it is shown in SAR annex 7.

The concept of taking part in the integrated Course Project students obtain an opportunity to do individual work that might develop certain basic research skills. The course *Fundamentals of Research and Innovation* gives general methodological help to prepare the final thesis. Nevertheless the modest research activities of many of the teaching staff make it questionable whether these courses transfer enough knowledge and skill to develop any real research abilities. This is evident from the quality level of the master theses most of which are below expectations for this level of study.

Within three years only two students took part in international mobility. The Expert team suggests encouraging more students to take advantage of available mobility programmes (ERASMUS etc.).

Academic support is sufficient, because they have electronic database throughout the university. Some teachers have their personal web pages and where they store information about their courses that is relevant to students.

Alumni have expressed their general satisfaction with the knowledge and skills they had acquired and they stated they were successful in their jobs. Some of them are working for a CAA license. Those working with the Air Force are very positive concerning their competencies obtained.

6. Programme management

Aircraft Piloting study programme Committee (SAR p.34) is responsible for programme management and decisions making. The functions of the committee are to prepare new study programs, to improve and renew present study programs, to ensure their quality. Committee also analyzes and evaluates the course units of the study field and ensures feedback between the programme executors, students, graduates and stakeholders.

The opinion of stakeholders is considered and makes influence on the improvement of study programme. Stakeholders mentioned they have good contacts with institute administration and are participating in forming the programme. Military Academy is satisfied with the collaboration structure and with level of the studies. Stakeholders provided information that the request of pilots in future will grow due to retirement of many military staff.

External social partners have significant impact on the study quality. The vocational training level is controlled by the Civil Aviation Administration which also accredits the annual study programme. The last certificate No LT.25/2 of accreditation was issued on 26th of September, 2012. The certificate is valid until the 1st of October, 2013 and provides a permission to prepare commercial air transport pilots and instructor-pilots.

Lithuanian Border Guard is cooperating with programme administration and providing notes on the programme (SAR p.37). The internal quality assurance measures like programme quality assessment methodology designed by Centre for Quality Assessment in Higher Education, human resource quality measurement implemented by the University and Faculty Competition and Certification Commissions and other measures, presented in SAR item 7.2.2, ensuring effectiveness and efficiency of the internal quality system.

According to the SAR study programmes are continuously improved and renewed based on internal assessment done every year. The close collaboration with AGAI helps with proper feedback on the quality of the programme. These measures of internal quality assurance might be sufficient.

III. RECOMMENDATIONS

1. Course contents of *Physics, Aviation history, Digital design, Information technology and management* to be updated.
2. Include more methodological approaches leading towards the development of research skills of graduates, including strengthening of scientific contents of final thesis.
3. Strengthen scientific development of staff, involving junior teachers and scientists in PhD programmes.
4. Start research projects, possibly by applying for national and EU grants, jointly with other universities and institutions. Increase number of high level scientific publications by staff members.
5. Students and staff mobility to be increased.

IV. SUMMARY

The evaluation team found that the quality of the study programme is essentially good and it is evolving in the direction of continuous improvement. In the next some detail remarks follow.

The following are quality aspects of the programme:

- Good specific aeronautics and aircraft piloting competences taught;
- Well-equipped and up-to-date training facilities;
- The teaching staff involved in the programme is experienced and well prepared;
- The programme receives efficient feedback from stakeholders and satisfies the needs of the social partners;
- Premises, laboratories, equipment, teaching materials and library are up-to-date and in good condition;
- Internal and external quality assessment measures are efficient;
- Programme contents are constantly improving.

The following are negative quality aspects of the programme:

- Some basic science courses need improvement;
- Missing management competences;
- Lack of proper motivation of some basic courses' teachers;
- Decreasing activity in research and innovative work, also decreasing publications activity;
- Decreasing number of staff with scientific degree, especially applied to full professors;
- Low participation of staff and students in international mobility;
- The relation between VGTU administration and the Institute of Aviation seems to be not balanced enough (discrepancies in the Ph.D. enrolment needs and possibilities, general subjects' non-specific contents)

V. GENERAL ASSESSMENT

The study programme *Aircraft Piloting* (state code – 601H41001) at Vilnius Gediminas Technical University is given **positive** evaluation.

Study programme assessment in points by fields of assessment.

No.	Evaluation Area	Evaluation Area in Points*
1.	Programme aims and learning outcomes	3
2.	Curriculum design	3
3.	Staff	2
4.	Material resources	4
5.	Study process and assessment (student admission, study process student support, achievement assessment)	3
6.	Programme management (programme administration, internal quality assurance)	3
	Total:	18

*1 (unsatisfactory) - there are essential shortcomings that must be eliminated;

2 (satisfactory) - meets the established minimum requirements, needs improvement;

3 (good) - the field develops systematically, has distinctive features;

4 (very good) - the field is exceptionally good.

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**VILNIAUS GEDIMINO TECHNIKOS UNIVERSITETO VIENTISŪJŲ STUDIJŲ
PROGRAMOS ORLAIVIŲ PILOTAVIMAS (VALSTYBINIS KODAS – 601H41001) 2013-
06-11 EKSPERTINIO VERTINIMO IŠVADŲ NR. SV4-198 IŠRAŠAS**

<...>

V. APIBENDRINAMASIS ĮVERTINIMAS

Vilniaus Gedimino technikos universiteto studijų programa *Orlaivių pilotavimas* (valstybinis kodas – 601H41001) vertinama teigiamai.

Eil. Nr.	Vertinimo sritis	Srities įvertinimas, balais*
1.	Programos tikslai ir numatomi studijų rezultatai	3
2.	Programos sandara	3
3.	Personalas	2
4.	Materialieji ištekliai	4
5.	Studijų eiga ir jos vertinimas	3
6.	Programos vadyba	3
	Iš viso:	18

* 1 - Nepatenkinamai (yra esminių trūkumų, kuriuos būtina pašalinti)

2 - Patenkinamai (tenkina minimalius reikalavimus, reikia tobulinti)

3 - Gerai (sistemiškai plėtojama sritis, turi savitų bruožų)

4 - Labai gerai (sritis yra išskirtinė)

<...>

IV. SANTRAUKA

Vertinimo grupė nustatė, kad studijų programos kokybė iš esmės yra gera ir ji nuolat tobulinama. Toliau pateikiamos kelios konkrečios pastabos.

Programos stipriosios pusės:

- lavinamos geros konkrečios aeronautikos ir orlaivių pilotavimo kompetencijos;
- gerai aprūpintos ir šiuolaikiškos mokymų patalpos;
- programos dėstytojai yra patyrę ir gerai pasirengę;
- programa gauna pakankamai atsiliepimų iš suinteresuotųjų šalių ir tenkina socialinių partnerių poreikius;
- patalpos, laboratorijos, įranga, dėstymo medžiaga ir biblioteka yra šiuolaikiškos ir geros būklės;
- vidinio ir išorinio kokybės vertinimo priemonės yra veiksmingos;
- programos turinys nuolat tobulinamas.

Programos silpnosios pusės:

- kai kuriuos pagrindinius studijų dalykus reikia tobulinti;
- nepakankami vadybiniai įgūdžiai;
- kai kurių pagrindinių dalykų dėstytojams trūksta tinkamos motyvacijos;
- mažėja mokslinė tiriamoji veikla ir inovatyvus darbas, taip pat mažėja publikacijų;
- mažėja mokslinį laipsnį turinčio personalo skaičius, tai ypač taikytina nuolatiniams profesoriams;
- personalas ir studentai neaktyviai dalyvauja tarptautinio judumo programose;
- VGTU administracijos ir Aviacijos instituto santykiai atrodo nepakankamai subalansuoti (neatitinka studentų priėmimo į doktorantūrą poreikis ir galimybės, nekonkretus bendrųjų dalykų turinys).

III. REKOMENDACIJOS

1. *Fizikos, aviacijos istorijos, skaitmeninio projektavimo, informacinių technologijų ir vadybos* dalykų turinį reikia atnaujinti.
2. Įtraukti daugiau metodų, lavinančių absolventų mokslinių tyrimų įgūdžius, įskaitant baigiamojo darbo mokslinio turinio stiprinimą.
3. Stiprinti dėstytojų mokslinį tobulinimą, įtraukiant jaunesnius dėstytojus ir mokslininkus į doktorantūros programas.
4. Pradėti vykdyti mokslinių tyrimų projektus, galbūt teikti paraiškas nacionalinėms ir EU dotacijoms gauti kartu su kitais universitetais ir mokyklomis. Siekti, kad dėstytojai parengtų daugiau aukšto lygio mokslinių publikacijų.
5. Didinti studentų ir dėstytojų judumą.

<...>

Paslaugos teikėja patvirtina, kad yra susipažinusi su Lietuvos Respublikos Baudžiamojo kodekso¹ 235 straipsnio, numatančio atsakomybę už melagingą ar žinomai neteisingai atliktą vertimą, reikalavimais.

¹ Žin., 2002, Nr. 37-1341.