STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

VILNIAUS KOLEGIJOS STUDIJŲ PROGRAMOS *MAISTO TECHNOLOGIJA* *(valstybinis kodas – 653E42002)* VERTINIMO IŠVADOS

EVALUATION REPORT OF *FOOD TECHNOLOGY* (*state code – 653E42002*) STUDY PROGRAMME at VILNIUS COLLEGE

1. **Prof. Dr Frank McMahon (team leader),** *academic,*
2. **Prof. Dr Raul Filipe Xisto Bruno de Sousa,** *academic,*
3. **Assoc. Prof. Dr Robert van Deun,** *academic,*
4. **Assoc. Prof. Dr Rimgailė Degutytė,** *academic,*
5. **Ms. Inga Kalpakovaitė,** *students' representative.*

Evaluation coordinator –

Ms. Natalja Bogdanova

Išvados parengtos anglų kalba
Report language – English

Vilnius
2015

DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	***Maisto technologija***
Valstybinis kodas	653E42002
Studijų sritis	Technologijos mokslai
Studijų kryptis	Maisto technologijos
Studijų programos rūšis	Koleginės studijos
Studijų pakopa	pirmoji
Studijų forma (trukmė metais)	nuolatinė (3), ištęstinė (4)
Studijų programos apimtis kreditais	180
Suteikiamas laipsnis ir (ar) profesinė kvalifikacija	Maisto produktų technologijų profesinio bakalauro laipsnis
Studijų programos įregistravimo data	2003-02-29

INFORMATION ON EVALUATED STUDY PROGRAMME

Title of the study programme	***Food Technology***
State code	653E42002
Study area	Technology Sciences
Study field	Food Technology
Type of the study programme	College studies
Study cycle	First
Study mode (length in years)	Full-time (3), part-time (4)
Volume of the study programme in credits	180
Degree and (or) professional qualifications awarded	Professional Bachelor in Foodstuffs Technology
Date of registration of the study programme	29-02-2003

CONTENTS

I. INTRODUCTION

1.1. Background of the evaluation process

The evaluation of on-going study programmes is based on the **Methodology for evaluation of Higher Education study programmes,** approved by Order No 1-01-162 of 20 December 2010 of the Director of the Centre for Quality Assessment in Higher Education (hereafter – SKVC).

The evaluation is intended to help higher education institutions to constantly improve their study programmes and to inform the public about the quality of studies.

The evaluation process consists of the main following stages: *1) self-evaluation and self-evaluation report prepared by Higher Education Institution (hereafter – HEI); 2) visit of the review team at the higher education institution; 3) production of the evaluation report by the review team and its publication; 4) follow-up activities.*

On the basis of external evaluation report of the study programme SKVC takes a decision to accredit study programme either for 6 years or for 3 years. If the programme evaluation is negative such a programme is not accredited.

The programme is **accredited for 6 years** if all evaluation areas are evaluated as "very good" (4 points) or "good" (3 points).

The programme is **accredited for 3 years** if none of the areas was evaluated as "unsatisfactory" (1 point) and at least one evaluation area was evaluated as "satisfactory" (2 points).

The programme **is not accredited** if at least one of evaluation areas was evaluated as "unsatisfactory" (1 point).

1.2. General

The Application documentation submitted by the HEI follows the outline recommended by the SKVC.

1.3. Background of the HEI/Faculty/Study field/ Additional information

Vilnius College (hereinafter VK) was established in the year 2000 incorporating the former Vilnius Higher Vocational School of Electronics, Vilnius Higher Vocational School of Economics and Vilnius Higher Vocational School of Business. It has almost 7,000 students and 467 teachers. It offers 44 study programmes and its mission is to offer practice-oriented study programmes leading to the award of a Professional Bachelor Degree. VK comprises seven faculties including the Faculty of Agrotechnologies in which the Food Technology Study programme (FT SP) is located.

The FT SP was approved and registered in 2003 and since then 296 students have graduated from the programme. The external evaluation of FT SP was performed by an International Expert Panel including a visit to the College in October 2012 and the study programme was accredited for three years.

1.4. The Review Team

The review team was completed according *Description of experts' recruitment*, approved by order No. 1-01-151 of Acting Director of the Centre for Quality Assessment in Higher Education. The Review Visit to HEI was conducted by the team on *23rd April 2015.*

1. Prof. Dr. Frank McMahon (team leader), *Emeritus Director of Academic Affairs ,Dublin Institute of Technology, Ireland and former Director of DIT College of Tourism and Food.*

2. Prof. Dr. Raul Filipe Xisto Bruno de Sousa, *Former Professor at the Department of Sciences and Engineering of Biosystems, School of Agronomy, Technical University of Lisbon, Expert of A3ES Quality and Accreditation Agency, Portugal.*

3. Assoc. Prof. Dr. Robert van Deun, *Lecturer at Agro- and Biotechnology Department, Thomas More University College, Expert of Belgian Quality and Accreditation Agency (NVAO), Belgium.*

4. Assoc. Prof. Dr. Rimgailė Degutytė, *Lecturer at the Department of Food Science and Technology, Faculty of Chemical Technology, Kaunas University of Technology, Lithuania.*

5. Ms. Inga Kalpakovaitė, *Bachelor student of Molecular Biology, Vilnius University, Lithuania*.

Evaluation coordinator Ms. Natalja Bogdanova

II. PROGRAMME ANALYSIS

2.1. Programme aims and learning outcomes

The aims of the Food Technology programme are well defined, clear and publicly accessible. They are oriented towards training of qualified middle chain food technology specialists for practical work, who ought to be able to organize and manage food production technological processes, assure the quality of the production, complying with food safety and quality normative documents' requirements. These objectives were formulated in accordance with the survey results of social partners, taking into account the social-economic, scientific and technological development of the country and the development strategy of the VK.

Information about the study programme is publicly accessible as it is presented on the VK and the faculty websites in Lithuanian and English:
http://www.viko.lt/stojantiesiems/studiju-programos/
http://main.wp.viko.lt/media/uploads/sites/3/2014/08/Maisto-produktu-technologija.pdf
http://atf.viko.lt/uploads/aprasai/MAISTO_TECHNOLOGIJA_LT%20201405.pdf
http://atf.viko.lt/en/page/Courses-in-English-2.

and also on some other internet websites:
http://www.aikos.smm.lt/studijuoti/SitePages/Noriu%20studijuoti.aspx
http://studijos.tv3.lt/mokymo_programa/3813/0/

These websites provide very useful information for potential students, their parents and for potential partners of VK (such as food companies) who require information on the content of programmes at VK.

The learning outcomes are consistent with the learning outcomes for first cycle degrees of the Bologna Framework and the European Qualifications Framework.

As it was noted during the meeting with administration and in the Self-Evaluation Report (SER) the College has aimed to ensure that the programme meets the needs of the labour market by organizing regular surveys of employers about the need for specialists. It is stated that majority from the 32 surveyed companies in 2014 confirmed the requirement of food technology graduates, especially meat production specialists with professional higher education. The fact that potential specialists can meet public needs in Vilnius region and the availability of workplaces in industry for graduates of the programme, indicate success in meeting labour market requirements. However, when the Review Team met graduates of the programme it became apparent that not many of the graduates attained positions that were appropriate for their qualification. The potential employers from the social partners during the meeting with the Review Team said they were happy with the programme but could not assure they would employ a graduate of the programme. This raised doubts whether the output of graduates in Food Technology was a good deal greater than the number that industry can absorb. It is recommended that the College investigate the number of places required by industry.

The learning outcomes of the FT SP are oriented towards practical skills in food technology; they claim graduates' ability to project, organize, implement and assure safety and quality of the production on their own. These learning outcomes are relevant to study programme aims and they are achieved by teaching separate modules included in the curriculum. The linking of programme learning outcomes with the module learning outcomes does not specify the modules where the named outcomes are attained (Annex 5). Still, the module learning outcomes attributed to study programme outcomes can be found within descriptors of each specific module (Annex1).

However, the module learning outcomes are not always relevant to the programme learning outcome to which they are attributed.

The name of the programme has been changed recently from the *Foodstuffs Technology* study programme to the more brief and comprehensive *Food Technology* study programme title, as recommended in the report of the external evaluation by a review team on behalf of SKVC (2012).

The name of the study programme, its learning outcomes, content and the qualifications offered are compatible with each other. Learning outcomes are updated periodically, every 3-6 years. Graduates of the college are awarded the professional Bachelor's degree of Food Technology. The programme offers three specializations within the degree: Bread Baking Technology; Meat Product Technology; Catering Enterprise Production Technology. These specialisations are appropriate and are all fully compatible with the heading of the overall thrust of the programme.

The programme aims and learning outcomes are consistent with the level of studies and the level of qualification offered (a Professional Bachelor degree). The award is based on the successful achievement of 180 ECTS credits which satisfies the national and European requirements.

2.2. Curriculum design

Consideration of the documentation supplied to the Panel established that the proposed study programme curriculum design meets legal requirements for a Professional Bachelor degree which include

- 180 ETC credits,
- At least 15 credits for general studies (there are 20)
- Main courses of the study field should be at least 135 credits (there are 150)
- The volume of practice should be no less than 30 credits (there are 30)
- Final thesis to be worth minimum 9 credits (there are 10 credits)

The volume of subjects is the same for full-time and part-time studies, duration of studies is 3 years for full-time studies and 4 years for part-time studies. Each module ends with an examination or student's project work evaluation.

The Review Team was satisfied that the subjects are spread evenly throughout the programme and that their themes are not repetitive. The volume of 30 ECTS (three modules – each 10 ECTS) is covered throughout the semester. The chosen order of the subjects is logical, starting with the fundamentals of basic sciences in the first year, following by food chemistry, safety and quality, foodstuffs technologies, comprising the second year studies. Then, in the third year of

studies three specialization options are provided (Bread, Meat, Catering), which are composed of theoretical modules, 20 ECTS, and professional practice, 10 ECTS. The practical work in different forms, as demanded by the requirements, comprises one third of the programme and the volume of practical training is 30 ECTS. Final professional activity practice is combined with the elaboration of the Final Thesis.

The content of the subjects/modules is consistent with the level of gaining a Professional Bachelor degree. During the first semester of full-time studies the focus is on general studies, basics of natural sciences, self-development and communication, the subject studies. The essential study modules provide knowledge and skills, that are needed for acquiring specialization and technological education, raising professional qualifications. Some attention should be given to fundamental knowledge of biochemistry and microbiology. The few topics of these subjects, included throughout the descriptions of some modules, may not be covered well enough to give comprehensive basic knowledge needed for food technologist background.

The content and teaching methods of the subjects/modules are generally appropriate for the achievement of intended learning outcomes. The methods include mainly lectures, laboratory practices, practice in food industry, etc. The teachers and the students expressed themselves as satisfied with the programme as implemented.

VK has adopted a modular approach to the implementation of this programme and in some cases the huge variety of teaching methods listed causes the impression of overcrowding while studying some basic topics. For example, Nutrition and Food Chemistry is a 20 ECTS module that covers Chemical Composition of Foodstuffs, Food Additives, Nutrition Physiology, Digestive processes, Principles of Healthy Eating, Types of Vegetarians and Their Foods, Nutrition of Different Age Groups, Development of Typical Menus, Nutrition of European Nations and World Nutrition. Some teachers expressed concern that their subject “got lost” when it was amalgamated with other subjects in a large module. So there may be merit in encouraging teachers to review the large modules to see if it would be better to disaggregate some modules into smaller, stand-alone modules.

Students whom the Review Team met expressed their happiness with the modular system but the Review Team was concerned that the modular structure may provide some difficulties for weaker students, while it suits the stronger students. Accordingly, it recommends that the programme management adopts a sensitive approach to the needs of weaker students as they struggle to achieve the learning outcomes.

The scope of the programme is sufficient to allow students to achieve the learning outcomes; it is planned for 3 years (full-time) and 4 years (part-time). The programme management team has ensured that each module has specified learning outcomes which are related to the

programme aims and learning outcomes. The success rate for students to complete the full-time programme is over 60% as set out in Table 18 of the SER. This indicates that for most students, the scope of the programme is sufficient to ensure the achievement of learning outcomes.

The Review Team concluded that the learning outcomes are well specified, although some of the intended outcomes presented within the course descriptions are stated in rather ambitious terms. For instance, ability to analyze metabolism of various nutrients and impact on human vital functions, or biochemical changes of nutrients during technological processes sound too ambitious without having sound basis of bioorganic chemistry and biochemistry.

The Review Team was satisfied that the contents of the programme reflect the latest achievement in technologies as the College has invested in good laboratory equipment and has supplemented this with good arrangements with companies for student practice in industry. However, the Review Team was not convinced that the level of research or applied research being undertaken by teachers is sufficient to warrant a decision that the contents of the programme reflect the latest achievements in science. There are research activities by staff of Vilnius College, mainly in the fields of applied research and educational research for quality assurance in education. The results are presented mainly in conferences. The scope of the research needs to be further extended.

2.3. Teaching staff

The Review Team is satisfied that the method of selecting staff is in accordance with VK requirements for the procedures of organising competitions for the recruitment of teachers. The requirements set out for teaching staff comply with the Law on Higher Education and Research. The academic qualification required is not lower than Master's degree or a higher education qualification equivalent to it. In regard to experience of working in industry, there is a requirement that at least half the teachers should have 3 years or more work experience in industry. In fact, the majority of teachers have more than 3 years experience of working in the food industry, while all full-time teachers have at least 3 years teaching experience.

Out of 25 teachers working on this study programme, 84% are lecturers (20 have a Master's degree, 1 – PhD), 16% – associate professors (4 have a doctorate). Accordingly, the Review Team decided that VK meets the requirement that "no less than 10% of the scope of the subjects must be taught by scientists" (those with a doctorate). While 68% of the teachers are full-time in VK, some specialist lecturers are invited from industry, universities or foreign companies. The involvement of industry personnel and university specialists is to be commended.

While the current staff members meet the requirements, the Review Team noted that most of the PhD holders teaching on the FT programme are not full-time staff members of VK but are

employed elsewhere. So there is a need for VK to increase the number of PhD staff either by enabling existing staff to complete their PhD or by recruiting some PhD holders to the team.

The total number of staff teaching on the programme is 25 of whom 17 (68%) are full-time while 8 (32%) are part-time. This is an adequate number to teach the programme. Students commented that the relations with teachers are good and that they can always go to see a teacher if they so needed. They also said they get feedback from teachers if ever they fail a module. The availability of teachers to meet students when requested supports the view that the number of teachers is adequate.

There has been no significant staff turnover of teachers in recent years and accordingly staff turnover is not a problem. However a problem may arise in the future because of the age profile of teachers, especially the decrease in the number of younger teachers (up to 35 years of age) and the fact that 8 of the 25 teachers are over 55 years of age.

It was noted that the teaching staff is encouraged by VK management to improve personal qualifications in various forms – mostly by participation in seminars and conferences. This staff development may be related to the specialist subject that the teacher teaches but it was stressed by VK management that pedagogical development is also important. It was claimed in the SER (paragraph 145) that all permanent teachers improved their pedagogical skills in the period 2012-2015. However, it emerged in discussions that there is no mandatory requirement for teachers to gain a qualification in Teaching & Learning. It is recommended that such a mandatory requirement be introduced for all new teachers.

In 2014 VK adopted a Teacher Professional Development Plan for the period 2014-2018. This aims to support teacher development by activities in Lithuania and abroad. In the period 2009/10 to 2013/14, six teachers were involved in a total of ten internships outside Lithuania while in the same period four teachers were involved in a total of six internships in Lithuania.

In addition to the internships 43 study visits were made by VK teachers to venues outside Lithuania. This total included a visit by 20 VK staff members who went to Napier University in Scotland for a curriculum development project. This is a very good practice from the side of the College in providing conditions for a bigger number of teachers taking part in traineeships. There were also visits to Portugal, Slovakia, Germany, Latvia and Turkey.

There is a Centre for Foreign languages which might be used to improve the level of English and other languages among teachers. It is not free but offers a service at a greatly reduced rate.

VK has invested in Moodle as an e-learning platform and has provided training for staff members in its use. However, when the Review Team met current students they indicated that many teachers do not yet use Moodle. This needs to be addressed.

Teachers are involved in applied research, the results of which are presented mostly in conference material. It is desirable that students are involved in research activity and this can be facilitated when teachers are research-active. Also some teachers of the Department participate in educational research in the field of study quality assurance and participate in expert activity.

Every year teachers of the Department of Food Technology organise a conference on Foodstuffs – Safety and Quality. At this conference teachers and students deliver papers. Teachers are also active in giving lectures, providing consultancy and leading training sessions on topics related to food safety and quality, particularly in the Vilnius area. The practitioners, who are also teachers, maintain close relations with the media including newspapers and TV stations. They provide short articles on topics of general public interest. So, the Review Team has concluded that the applied research of the Department is quite good but the more scientific research that would lead to publications in Lithuania and abroad is still deficient.

Involvement by teachers in scientific research related to FT would enhance the teacher's knowledge and would have the added benefit that the teachers could involve students in some aspects of the research. This could improve the quality of the students' final theses. Certainly the summaries in English of the theses were not good, although those of 2014 were better than those of 2013.

Despite the progress that has been made in recent years, the Department of Food Technology acknowledges that there is insufficient publication by staff of research findings and secondly that cooperation with academic institutions for applied research is insufficiently developed. Both these matters need to be addressed by the College. When teachers were asked about extending their research activity, they suggested reducing the number of contact hours to make more room for research. They also suggested there is a need for more analytical equipment in the laboratories. These factors will need to be taken into account as the management of VK seeks to grow its research activity.

2.4. Facilities and learning resources

Paragraph 170 of the SER gives detailed description of the material facilities including both lecture classes and modern practical and laboratory training laboratories available for the use in *Food technology* study modules. When the Review Team visited VK, it concluded that the premises are adequate in size. Some detailed comments follow below.

While the classrooms appeared to be adequate in size, some of the corridors visited by the Review Team were poorly lit.

The Distance Education unit gives VK the opportunity to enhance internationalisation by providing some lectures across international borders. It also provides an opportunity to boost the quality of the part-time programmes, including FTSP, for students throughout Lithuania.

The evaluation report of 2012 had criticised the lack of laboratories and equipment at that time. Since then, the College has invested in improved facilities and during the recent visit the Review Team visited the following laboratories:

- Bakery Laboratory
- Microbiology Laboratory
- Chemistry Laboratory
- Instrumental Analysis Laboratory
- Food Chemistry Laboratory

The technical state of three Chemistry laboratories was evaluated by Review Team and the team commends VK for fundamental approach towards laboratory equipment – specialized laboratory tables, hoods to release toxic chemicals, ventilation and air heating systems, conventional glassware and equipment for chemistry basic practicums. Furthermore, modern equipment is installed in Chemistry laboratories, such as automatic titrators “Titroline Easy”, spectrophotometers GENESYS 20TM UV/Vis and “Ultraspec 1100 pro”, FT-IR, spectrometer VARIAN 640-IR, atomic absorption spectrophotometer 'Buck Scientific 210VGP. Auxiliary facilities for the storage of chemicals with effective ventilation system is also arranged, when organizing practical classes laboratory safety and environment protection issues are addressed in due manner.

Also the laboratories for Nutrition and Food Chemistry, Foodstuffs Technology modules are modern and fully equipped and adequate for the fulfilment of practical works. Still, the Department needs investment in the development of the infrastructure for practical training in Microbiology, because now most of laboratory work in Microbiology is performed at the State Food and Veterinary Service. Generally the Review Team was impressed with the new and enhanced facilities. The laboratory equipment was good and for most subjects was adequate for the programme being taught, though some extra equipment will be needed to support scientific research. The Microbiology laboratory was not deemed adequate for the programme but the College has made arrangements to use the State Microbiology laboratory. The Sensory Analysis facility has the necessary furniture but it needs equipment.

Much of the student practice is carried in the VK laboratories; for example there are facilities for practical classes of baking technology. In addition, there are signed cooperation agreements with State companies and with manufacturing enterprises which allow practice sessions in real working conditions. This is essential condition for achieving the learning outcomes

intended for a graduate of a Professional Bachelor degree programme. When the Review Team met the Social Partners, most indicated that they take students for practice and they were happy with the practical skills that the students exhibited. They were also impressed with the investment that VK had made in better laboratory facilities.

The faculty library is one of seven libraries in VK and it offers 35 general workplaces, copying , printing services are available. Library users have an access to a series of e-databases as EBSCO Publishing, Oxford Journals Online, Taylor & Francis (via LMBA project eMoDB.LT: Opening of Electronic Scientific Databases for Lithuania), subscribes to e-books collection *eBooks on EBSCOhost;* it is stated that there is access to some Lithuanian universities‘ e-book collections. The subscription of publications, books, and extending the catalogue gives additional abilities for studies, research and thesis writing. The methodological material is being collected in the reading room and the library, the learning material for study modules is accessible for students via Moodle environment. The opening hours are adjusted for the students to come after classes also. Students were particularly appreciative of the on-line access to resources.

Students who met the Review Team commented on the lack of books in English on Food Technology topics; this lack had been noted in the SER where it mentioned that there is insufficient variety of modern material resources (textbooks) (paragraph 197). It is recommended that priority should be given to remedying this deficiency.

Many of the students who met the Review Team were living in the dormitories on the campus. While they were generally happy with the facilities, they were unhappy about the shower facilities. The number of showers was totally inadequate for the number of users so this needs the urgent attention of VK management. Students also had a problem with the lack of hot water during the summer months and the need for curtains in classrooms in which projectors were being used. Wi-fi was considered to be poor in the faculty building (it was also poor in the dormitories).The students complained that the internet connections on the campus were slow, indicating a need for further investment in that area.

2.5. Study process and students‘ performance assessment

Since 2005 the admission to the programme is organised through General Admissions system of Higher Education Institutions (LAMA BPO). The Admissions requirements are based on national guidelines. On the average 36 students are admitted per year recently as is presented in Table 13 of SER The candidates willing to be enrolled in program studies should have secondary school education and the main test for admission is competition score. The number of applicants for places has been very healthy, generally at least eight times the number of places available though there was a slight decline in year 2014.

The decrease in the number of school graduates in Lithuania didn‘t influence the number of full-time students enrolled in the study programme but there is an evident decrease in the competition score of the admitted students each year (Table 14 of SER) The number of part-time students admitted is 36 per annum. There are special scholarships available for students from poor families on social benefits and for students with a disability.

In order to strengthen the recruitment of students, VK has developed a promotion plan for the FT study programme for 2015; this plan was approved at the Faculty Council meeting held on 18th December, 2014.

The teaching of the programme is organised on a modular basis with which the students are happy. In view of the success of students in progressing through the three years of the programme (the failure rate is only 10% per annum) it seems safe to conclude that the organisation of the study programme ensures an adequate provision of the programme and the achievement of the learning outcomes. However, the Review Team was concerned that the modular structure, which has involved the creation of modules with several different strands, might create difficulties for some weaker students, some of the teachers and students also did see this as problem. VK carried out research into the relationship between students' scores on entry and subsequent success in the study programme. They concluded that the relationship is not strong and that student motivation has the greatest impact on success in the programme.

Student drop-out occurs mainly in the first year and to some extent this is caused by students finding that the programme is not what they expected. So to improve the situation, VK plans to hold more professional events to inform school leavers about the programme and to improve the information about the FT SP on the college website.

Students are encouraged to participate in research activities. Where teachers are involved in research projects, such as labour market or business environment studies, they involve students in the research. Applied research projects completed by VK teachers in recent years included studies of Flour Confectionery Production, Fruit and Vegetable processing and Vitamin C; Ascorbic acid effects on humans.

Every student must produce a final thesis, and samples of these were seen by the Review Team who concluded that the research component was not strong enough. Ideally, each thesis should be based on a real research problem which is approved by the programme management, in consultation with an industrial organisation but in practice some theses are based on a localised industry problem. Every final thesis includes a summary (max. one page) in English. The samples viewed by the Review Team had many mistakes in the English; students would benefit from some assistance in translation. In regard to the theses, the Review Team also noticed that though it was declared there was great availability of scientific databases in the library, the bibliography of final

works was quite poor; the sources given mainly in Lithuanian and sometimes citations are from Wikipedia or some mass media pages, which should not be accepted in scientific papers. Despite these deficiencies, some of these theses were given very good grades.

Students, both full-time and part-time, are given the opportunity to participate in mobility programmes. This mobility can be for study abroad e.g. to spend one semester at a foreign university and undertake studies that will earn 30 ECTS for the student or a student can undertake work experience abroad. Either can be very beneficial for students and accordingly there is an accepted target at European level of 20% of all students to have studied/worked abroad by the year 2020. The VK Quality Manual, adopted in 2013, recognises the value of student mobility and acknowledges the target of 20% (page 37) but current performance falls a long way short of that target. In 2012/13 there was one student who went abroad for practice and no incoming students. In 2013/14, there were five students who went abroad and no incoming students. A major effort will be required to boost numbers, both outgoing and incoming.

The Department of Food Technology has put efforts into following the recommendations of the previous evaluation in 2012 by preparing descriptors of three modules in English covering professional activity practice, thereby becoming more open for potential students from other countries on Erasmus or other programmes, and enabling students to come for the whole semester studies. Nevertheless, this is hardly sufficient to attract students from other countries to spend a semester at VK so the number of such modules needs to be increased. Teachers at VK suggested that having more visiting international lecturers, working through English, would help to boost the internationalisation of the FT study programme.

There is a well-organised scheme to assist students who need assistance. Students confirmed that they relations with teachers are very good and that there is a clear pathway for dealing with problems. Students can go to the class leader and if the problem is not quickly solved the Student Association takes it up with VK management. Students also reported that they are always shown why they have failed an exam and if they are unhappy with the decision they can go to the Head of Department. If still not satisfied there is an agreed Appeals System. Students indicated that the arrangements for them to repeat an examination if they failed, were very favourable.

There is an active Student Association which is responsible for the organisation of Cultural Events and for the nomination of students to serve on faculty committees. Many sports and fitness courses are organised for students, coordinated by the Sport Centre.

All students are offered space in an on-campus dormitory if they require it. While generally good, there are some deficiencies in these dormitories (see section 2.4 above).

There is a scheme of scholarships in place which may assist either incoming students or in-programme students. Incentive scholarships are available for excellent academic performance or for active participation in faculty community activities.

The assessment system for the FTSP is based on a portfolio approach whereby the student performance in specified tasks is aggregated. For example, the cumulative score may consist of interim assignments, laboratory work, portfolio, projects and examinations. This approach is student-friendly as success is not dependent on a single final exam and in addition, students get feedback on their performance throughout the semester. Students expressed themselves to be satisfied with the system. Details of the assessment methods are outlined on the VK website and are easily accessed by students.

The employability of students is measured twice every academic year, once in September and again in March and is reported upon. The employment level in the past five years has varied between 79% and 100%, so always at a high level. But when employability was analysed on the basis of employments which were in line with the professional qualification of the graduates, the level varied between 58% and 86%. When the Review Team discussed employability with graduates and with social partners, it formed the view that it is difficult for graduates to gain employment which accords with their Professional Bachelor degree in FT. This is partly due to the number of graduates being produced each year in colleges and universities and partly due to the small scale of the enterprises in the food industry.

2.6. Programme management

Since the review of the FT programme in 2012, VK has implemented a new Quality Management Development System in November 2013. The internal quality assurance system involves self-assessment at every level: teacher, department, faculty, and college.

There is a FT Programme Committee chaired by the FT Head of Department and whose membership includes whose membership includes lecturers, social partners and students. The membership of the committee is in line with recommended best practice. Students are satisfied that they have a voice on this committee. The committee reviews the outcome of student surveys as well as feedback from social partners who provide places for student internships and who supervise and evaluate student final theses. The Review Team was satisfied with the manner in which responsibilities for decision-making were allocated.

At the end of each semester, surveys of student opinions are undertaken on the modules just completed. The results of the surveys are fed into the meetings of the Programme Committee. Surveys are also conducted among teachers, graduates, and employers on study process improvement, programme content and teaching methods. In addition, there is an annual survey of

employers regarding student knowledge, and professional skills while the quality of practice places is evaluated by the practice supervisor. At the end of the defence of student theses, feedback is provided by the Qualifications Commission, which has a majority of employers in its membership, on the strengths and weaknesses of the students who present final theses. Finally, there is a report prepared by the faculty on applications, admissions, scores of applicants, examination statistics, etc. which is made available to the FT Programme Committee.

There was clear evidence available to the Review Team that serious consideration had been given by VK to the recommendations contained in the 2012 SKVC report on the FT SP, as evidenced in sections 2.1, 2.4 and 2.5 above. The Review Team was also satisfied that data from all the internal reviews of the programme are used for the development of the programme. Students, teachers and employers expressed themselves to be happy with the extent to which their recommendations were taken on board.

As outlined above, students, teachers and employers are clearly involved in the process in the evaluation and improvement processes. The Review Team was satisfied that those stakeholders were adequately involved. It was less clear to the Review Team that graduates of the programme were involved. This impression may have been strengthened by the fact that only three graduates turned up to meet the Review Team even though twelve were listed to attend. Secondly, the three who attended stated they had very little contact with the College since their graduation. And thirdly, the graduates stated that there is no association of graduates though they do have a Facebook page. Interestingly, the management of the College had mentioned to the Review Team that there **is** a Graduates Association. So at the very least, the College needs to promote the Association to its graduates and thereby establish a formal mechanism for graduates to be consulted.

The internal quality assurance system was established in November 2013 (see the first section of 2.6 above). The system as implemented incorporates the features of a QA system recommended by the European Standards and Guidelines. It enjoys the confidence of the teachers and students. The results of surveys of students, staff and employers are used as a basis for discussion to develop an improvement plan. Accordingly, the Review Team was satisfied that VK internal quality assurance measures are both effective and efficient.

III. RECOMMENDATIONS

1. VK offering FT programme should investigate the number of graduates in FT required by industry.

2. Teachers should review large modules to see if it would be better to have more, smaller modules.

3. Teachers should be encouraged to extend the scope of their research. To do so, there may be a need for further investment in equipment and also a review of the workload of teachers.

4. Efforts should be made to further increase the number of teachers with a doctoral qualification; this could be done either by hiring staff with PhD or by assisting staff to gain PhD.

5. It should be made mandatory for all new teachers to acquire a Postgraduate award in Teaching & Learning.

6. VK should improve the dormitories, wi-fi and lighting in corridors.

7. The use of Moodle is appreciated by students so its use should be further extended to involve all teachers and a wider range of uses.

8. The new Sensory Analysis facility needs to be equipped.

9. The library needs extra textbooks in English.

10. Student mobility outside Lithuania needs to be greatly expanded. In order to promote exchange programmes, VK needs more modules in English (currently only 3).

11. The student Final Theses include a one-page summary in English. The samples seen by the Review Team had poor quality English. Students would benefit from some assistance in this area. Efforts must be made to improve the quality of Final Works, by paying special attention to the bibliography - it should be based on updated and trustworthy sources.

12. While social partners and graduates are consulted about programme changes, the method of consulting them would benefit from formalisation e.g. by publicising the Alumni Association, the existence of which was not known to the graduates who met the Review Team.

IV. SUMMARY

The programme commenced in 2003 and is offered in both full-time and part-time modes. The overall aim of the programme is the training of competent professionals in the field of Food Technology (FT). The programme aims and learning outcomes are well defined and clear and the relationship between those outcomes and the Dublin Descriptors is well established.

Employers were involved in the development of the current programme and all teaching staff members were consulted. The programme seems to meet the requirements of the labour market and the name of the programme, its learning outcomes, its content and the qualification offered are all compatible with each other. Nevertheless, doubts whether the output of graduates in Food Technology is a good deal greater than the number that industry can absorb. It is recommended that the College investigate the number of places required by industry.

The curriculum design meets all legal requirements and the content and methods of the subjects/modules are appropriate for the achievement of the intended learning outcomes. The team of lecturers is somewhat research active but the Review Team concluded there is room for improvement, taking full advantage of the equipment available, and that students should be more involved in the research activity. More attention should be given to fundamental knowledge of biochemistry and microbiology. The teachers are encouraged to review some of the large composite modules to see if it would be better to differentiate some modules into smaller, standalone modules. This could bring more clarity and avoidance of overload during assessment of student performance.

The programme is provided by staff members who meet the legal requirements but there should be efforts to increase the number of staff with PhD. The number of staff is adequate to ensure learning outcomes and there is little staff turnover. However a problem may arise in the future because of the age profile of teachers. There is a reasonable emphasis given to staff development of lecturers but the panel recommends that a mandatory requirement for all new lecturers to gain a qualification in Learning & Teaching should be considered.

VK has invested in improved laboratories in recent years and this process should continue to enhance research facilities, as funds permit. The Team commends VK for its fundamental approach towards renewing basic laboratories and equipment as well as auxiliary facilities for the storage of chemicals with the adequate concern for laboratory safety and environment protection issues. Still, the Department needs investment in the development of the infrastructure for practical training in Microbiology and necessary equipment for the Sensory Analysis facility.

Much of the student practice is carried in the VK laboratories. In addition, there are signed cooperation agreements with State companies and with manufacturing enterprises which allow

practice sessions in real working conditions. This is an essential condition for achieving the learning outcomes intended for a graduate of a Professional Bachelor degree programme.

At the request of students, the VK should improve the dormitories, including an increase in the number of showers. The lecture classrooms with multimedia equipment should be provided with curtains and the quality of Wi-Fi should be improved.

The VK college library is well organized and equipped and all resources available to the students are free of charge. All electronic resources can be accessed remotely. The library still needs more textbooks in English on Food Technology topics.

The e-learning platform Moodle is used by most of the lecturers and the students were pleased with it, but it is recommended that it be adopted by all lecturers.

The current admissions procedures meet national guidelines and 36 students are recruited each year for both the full-time and part-time FT programmes. While students have the opportunity for international mobility they do not take up the opportunities in great numbers; more encouragement by staff is required.

Each student must write a Final Work. However efforts must be made to improve the quality of Final Works, in particular the use of English in the summaries and with special attention to the bibliography as it should be based on the use of updated and trustworthy sources.

The programme management is generally very good and it includes the collection and analysis of data on the implementation of the programme. There is an excellent philosophy of management which encourages all stakeholders (senior officers of VK, lecturers, students) to share in the programme management. It was less clear to the Review Team that graduates of the programme were involved and at least those three who met the Review Team had little contact with the college since their graduation. So at the very least, the College needs to promote the Graduate Association to its graduates and thereby establish a formal mechanism for graduates to be consulted.

V. GENERAL ASSESSMENT

The study programme *Food Technology* (state code – 653E42002) at Vilnius College is given **positive** evaluation.

Study programme assessment in points by evaluation areas.

No.	Evaluation Area	Evaluation of an area in points*
1.	Programme aims and learning outcomes	3
2.	Curriculum design	3
3.	Teaching staff	3
4.	Facilities and learning resources	3
5.	Study process and students' performance assessment	3
6.	Programme management	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.

Grupės vadovas: Team leader:	**Prof. dr. Frank McMahon**
Grupės nariai: Team members:	**Prof. dr. Raul Filipe Xisto Bruno de Sousa**
	Assoc. Prof. dr. Robert Van Deun
	Assoc. Prof. dr. Rimgailė Degutytė
	Ms. Inga Kalpakovaitė