



STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

**KLAIPĖDOS VALSTYBINĖS KOLEGIJOS
STUDIJŲ PROGRAMOS MAISTO TECHNOLOGIJOS (*valstybinis
kodus – 653E40002*)
VERTINIMO IŠVADOS**

**EVALUATION REPORT
OF *FOOD TECHNOLOGY* (*state code –
653E40002*)
STUDY PROGRAMME
at KLAIPĖDA STATE 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. Aušra Išarienė, *representative of social partners',*
6. Ms. Inga Kalpakovaitė, *students' representative.*

**Evaluation coordinator –
Ms. Natalja Bogdanova**

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DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	<i>Maisto technologijos</i>
Valstybinis kodas	653E40002
Studijų sritis	Technologijos mokslai
Studijų kryptis	Maisto technologijos
Studijų programos rūšis	Koleginės studijos
Studijų pakopa	pirmoji
Studijų forma (trukmė metais)	nuolatinė (3), iššęstinė (4)
Studijų programos apimtis kreditais	180
Suteikiamas laipsnis ir (ar) profesinė kvalifikacija	Maisto technologijų profesinio bakalauro laipsnis
Studijų programos įregistravimo data	2002-08-30

INFORMATION ON EVALUATED STUDY PROGRAMME

Title of the study programme	<i>Food Technology</i>
State code	653E40002
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 Food Technology
Date of registration of the study programme	30-08-2002

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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

Klaipeda State College (KVK) is one of the largest colleges in Lithuania with a strong academic reputation. The College focuses on study programmes that lead to a profession. The graduates of the College are awarded Professional Bachelor degrees. The studies are practice-orientated, students are able to apply their knowledge successfully in a real working environment. The College claims that the Food Technology Study Programme (FT SP) is the only such programme in Western Lithuania.

The FT SP is provided by the Faculty of Technologies in addition to seven other technological study programmes and the FT programme is supervised by the Department of Food Technology

The FT SP (formerly titled *Food Product Technology*) was approved and registered in August 2002. The external evaluation of the programme was performed by the Centre for Quality Assessment in Higher Education on 17 June 2009 and the new branches Food Safety and Public Catering Technology have been approved and registered in the study programme Food Product Technology. More recently, the external evaluation of FT SP was performed by an International Expert Panel including a visit to the College on 22 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 20th 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. Aušra Išarienė**, *Head of Food Department at the State Food and Veterinary Service, Lithuania.*
 - 6. 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 based on the Dublin Descriptors and are set out in Table 3 of the Self-Evaluation Report (SER). The Learning Outcomes are divided into 6 categories: Knowledge and understanding, Technological analysis, Technology design, Research, Technological activities and Personal skills. They are consistent with the learning outcomes for first cycle degrees of the Bologna Framework and the European Qualifications Framework. The aims reflect the vision that KVK has of itself as the leading provider of professional education for Western Lithuania. In regard to Food Technology, this includes an emphasis on Fish Technology as most enterprises involved in fish processing in Lithuania are located close to Klaipeda. KVK is the only college in Lithuania to offer a specialisation in fish technology.

However, the research skills that are specified in the programme aims and learning outcomes are limited and are unlikely to lead a graduate to a career in research. Success in research requires an ability to use sophisticated equipment, to write in accordance with agreed scientific norms and to interact with scientists internationally. KVK does not have the necessary equipment, neither the staff nor the students at KVK are sufficiently active internationally and the programme aims and learning outcomes do not provide a vision for them to become so.

The description of the programme aims and expected learning outcomes are publicly accessible on both the KVK website and the Ministry of Education and Science Counselling and Guidance System (AIKOS).

As well as being compatible with the EQF and Bologna Framework, the College has sought to ensure that the programme meets the needs of the labour market. It is claimed in section 13 of the SER that a survey of Labour Market Demand was undertaken by the Food Technology department of KVK in June, 2014 and that this survey indicated that executives of food manufacturing companies identified the key attributes necessary in graduates of Food Technology. KVK claims that its programme is designed to meet those attributes. The number of applications for the programme and the availability of placements in industry for students and graduates of the programme indicate success in meeting labour market requirements. The Social Partners who met the Review Team during the visit to KVK have expressed themselves satisfied with the aims of the programme and the intended learning outcomes.

A survey of 57 food manufacturing companies conducted by KVK personnel in 2014 indicated that 94% of employers said they were happy with the programme but only 54% said they would employ a graduate of the programme. The discrepancy arises because much of the food industry consists of SMEs which cannot afford to employ graduates. So despite the very

positive image of the programme, it is difficult for graduates to secure a job at a level which is appropriate for their qualification.

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 is in line with national and European requirements.

The content of the programme involves basic science including Chemistry and Microbiology in the first year and an increasing concentration of food-related subjects in second year including Food of Vegetable Origin, Food of Animal Origin and Food Production Processes. In the third year subjects studied include Fish Production, Food Quality Control and Food Preparation Technology and in addition students write a thesis on a food-related topic. There are 22 learning outcomes specified and the word “food” appears in 16 of them. The qualification offered is a professional bachelor degree in Food Technology. The Review Team was satisfied that the name of the programme, Food Technology, its learning outcomes, its contents and the qualification offered are all compatible with each other. This is further evidenced by the success in attracting students, and by the acceptability of graduates to the Food industry. An analysis of the employability of graduates of the FT programme has indicated a success rate of over 90% in some years and never less than 78% in the past five years. This is a very good success rate during a period of economic crisis in Europe. Not all the graduates are employed in posts that are compatible with their specialisation but between 73% and 84% of FT graduates found employment in their professional field.

The programme has three specialisations within the degree: Fish Product Technology, Food Safety and Public Catering Technology. These all appear to be compatible with the overall thrust of the programme [Food Technology].

On successful completion of the Professional Bachelor degree a graduate may choose to progress to a Master’s degree in a food-related programme at Klaipeda University or Kaunas University of Technology as well as four other universities. However, graduates of FT SP are expected to undertake bridging studies of approximately one year before they can enrol on a Master’s degree programme. Progression to Master’s programmes does not appear to be popular among students; of the 13 students who met the Review Team, only one was committed to undertaking a Master’s programme.

2.2. Curriculum design

The curriculum design meets the legal requirements for Professional Bachelor degree which include

- 180 ECTS credits

- At least 15 credits for general studies (there are 15)
- Main courses of the study field to be at least 135 credits (there are 156)
- Internships (practice) to be worth at least 30 credits (they are 30 credits)
- Final thesis to be worth at least 9 credits (it is worth 9 credits)

The Review Team is satisfied that the subjects are spread evenly and are not repetitive. The programme is organised so that each year of full-time study leads to the award of 60 ECTS while each year of part-time study leads to the award of 45 ECTS. There is a clear progression from general scientific subjects (Chemistry, Mathematics, Microbiology, IT, Engineering Principles) in the first year to more applied subjects later in the programme, e.g. Food Chemistry. The teaching staff and the students expressed themselves as satisfied with the programme as it is implemented

The content of the subjects is consistent with a Professional Bachelor degree. Such a degree is meant to train graduates for careers in the relevant industry and accordingly subjects of the final year at KVK include Management of Food Safety, Food Industry Process & Equipment, Fish Production and Equipment of Catering Enterprises. These subjects are completely appropriate for a professional bachelor degree in Food Technology. In addition, the students write a Final Thesis which is based on a current issue in a food processing enterprise.

The content and methods of the subjects/modules are appropriate for the achievement of the learning outcomes. The early semesters provide students with a grounding in subjects relevant to food technology and the teaching methods include practice sessions in laboratories. Such an approach is appropriate for the learning outcomes which are intended. Whilst the Review Team was generally happy with curriculum design, it has identified some areas where improvements should be implemented:

- Some subjects are based on outdated bibliographies which require to be updated.
- The Review Team was glad that issues of Sustainability were included in the programme but more could be done in relation to issues of water in the food industry and the problem of food waste.
- There should be a focus on issues around Food Distribution including the Marketing of food.
- Auditing for Food Safety deserves more attention.
- There should be a course on EU Legislation on Food Safety.

The teaching methods include lectures, laboratory practices and practice in industry. The Review Team discussed the operation of the programme with students, graduates and industry personnel on any perceived weaknesses associated with graduates of the programme and were satisfied that the teaching methods are appropriate.

The scope of the programme (3 years full-time, 4 years part-time) appears adequate to allow the achievement of the learning outcomes and this view was confirmed by the success rate of full-time students of FT SP.

However, the completion rate of part-time students for the most recent cohort (2011-14) has fallen to 50% so this needs further attention by the College.

The staff members teaching the FT SP are involved in research activities and they encourage students to become involved in applied research. There is an annual conference which provides students with the opportunity to present their research findings to their peers. In the period 2011-14, twenty three students presented papers at conferences. While there has been good progress in developing research since the last evaluation of the programme (in 2012) the Review Team concluded that the content of the programme reflects the latest achievements in technologies but not in science. Further activity by staff in the area of scientific research will be required to reach the position where the content of the programme reflects the latest achievements in science. To achieve this position, further investment in facilities will be required.

2.3. Teaching staff

The Review Team is satisfied that the method of selecting staff is in accordance with KVK rules of Procedures and accords with the Labour Code of the Republic of Lithuania. The requirements set out for teaching staff comply with Quality Guide. These include both academic qualifications and experience of working in industry. In regard to the latter, there is a requirement that at least half the teachers should have 3 years or more work experience in industry. In fact, 85% of teachers have more than 3 years' experience of working in the food industry while 96% have at least 3 years teaching experience.

85% of teachers have a Master's degree or equivalent while 15% have a doctorate. This enables KVK to claim that it meets the requirement that "no less than 10% of the scope of the subjects must be taught by scientists" (those with a doctorate). However, if KVK wishes to further develop its research activities, it will have to increase the proportion of teachers with a doctorate. This could be achieved either by recruiting staff members with a doctorate or by assisting current staff members to complete a doctorate. Teaching staff members at KVK are supported by College management to undertake master's and doctoral studies but to date not many staff members have completed their doctorate while working at KVK. One explanation offered was that the heavy workload makes it difficult to achieve but there is a reduction in workload for those completing a doctorate.

KVK acknowledges the difficulty in recruiting staff members with both high level qualifications and experience of the food industry so it has established contacts with local industry to enable staff members to get experience of the food industry.

The total number of staff teaching on the programme was 27 of whom 23 (89%) were full-time while 4 (11%) were part-time. The Review Team was satisfied that this number is adequate number to teach programme. Students and graduates commented favourably on the availability of teachers to meet and assist students when requested, which supports the view that the number of teachers is adequate.

There has been very little staff turnover in recent years apart from three retirements so staff turnover is not a problem.

KVK also provides “an approved training procedure for teachers” via in-service courses. Teachers are funded to participate in conferences and seminars, and to undertake scientific applied research.

Teachers stated that they collaborated with Social Partners via membership of the Programme Committee and by discussing progress of students on placements with their employers.

Professional development of teachers is claimed on the basis of an average number of 6.1 conferences per teacher in the reporting period (paragraph 52, SER). This is a reasonable average involvement but like all averages it conceals as much as it reveals. For example, some of these conferences may be outside Lithuania (an example was provided of two lecturers who attended a conference in Latvia) but it seems the vast majority were local. Professional development requires a planned approach that involves both KVK management and the individual lecturers. It must focus on the agreed needs of the lecturers.

Three of the teachers have completed Master’s degree in Pedagogy. However, while the Review Team commends the steps being taken to improve the qualifications of teachers in pedagogy and assessment, it urges the College to make it mandatory for all new teachers to obtain a Postgraduate award in Teaching and Learning, as is now required in similar institutions in many countries.

In the SER paragraph 59 it was stated that “The development of internationality is one of the most important strategic objectives” of KVK. But actual international mobility of teachers is at a low level – only three teachers in the past two years and they have all gone to Turkey. Much more effort and some resources are needed to bring the level of mobility to a decent level.

Generally, teachers were happy with the resources for research available though they mentioned that “equipment grows old quickly”. While some teachers are involved in research directly relevant to the Food Technology area, the number was low. There are also some teachers involved in consultancy projects with the food industry, advising companies on issues such as

hygiene, food storage, and quality assessment. In addition, the Food Technology Department organised a seminar on Food Safety assurance in 2013/14 and also a scientific-practical conference on Food Safety: Actualities and Prospects for staff of food production and public catering enterprises. These efforts are commended by the Review Team and it recommends that more teachers are involved in research activity and that they involve their students in the activity.

2.4. Facilities and learning resources

The SER provides details of the physical facilities available to the Food Technology department. It estimates that there are 12.01 sq. metres per student available where the minimum requirement is 12 sq. metres. So it is at the limit. However when the Review Team visited KVK, it inspected the facilities available to the FT SP and it was satisfied that the facilities and learning resources are adequate both in their size and quality. Some detailed comments on the resources are included in the following paragraphs.

When the FT programme was evaluated in 2012, the expert panel concluded that substantial investment in laboratories was needed to bring the facilities up to standard. Since then KVK has entered into an agreement with Klaipeda Tourism School to allow KVK students to use the food laboratories at the Tourism School. The Review Team was very impressed with the facilities available there and believes it can adequately provide the necessary space and equipment for basic food processing in regard to Bread and Meat processing. So the Review Team commends KVK on its agreement with the Tourism School.

There are also laboratories in the FT Department (Food laboratory, Chemistry laboratory and Microbiology laboratory) and while these are adequate to service the FTSP, there is a need for further investment in both the Chemistry and Microbiology laboratories. The Department needs equipment related to separation techniques, chromatography and mineral analysis. It is recommended that KVK acquires an experimental plant for Food Technology and that this should be the priority area for investment in equipment.

In addition to the facilities in the Department and in the Tourism School, KVK has negotiated access to companies engaged in Fish Technology and this is very useful for the FT SP. KVK management indicated that new equipment for Fish Technology is being purchased this year.

Students appreciated the improvements that were taking place in the laboratories on the campus but some students who had been abroad commented on the extent to which laboratories in other countries were at a much higher level. When students were asked which changes in the provision of FT SP would be most helpful to them, some mentioned “more equipment”.

The students have access to a well-organised library with approx. 40,000 volumes. There are three reading rooms and rooms for small group working. There is free access for students to e-books and all electronic resources can be accessed remotely, e.g. from any place on the campus or from home. There is internet access and facilities for printing and binding. The opening hours are 7.30 am to 7.00pm. Students were particularly appreciative of the on-line access to resources.

There is a large Computer Room which is used for practice companies in which students can hone their business management skills. It is a compulsory part of the FT SP that students complete a project on company development and must produce a brochure for their company. KVK has 643 computers of which 342 belong to the Food Technology Department. All computers are connected to the internet. The students expressed themselves as happy with their access to electronic resources and IT resources.

Student practice sessions are carried out mainly in KVK laboratories but some sessions (Food Production Process Research, Production and Final practices) are carried out in industry premises. There is a Practice Exchange Association of Klaipeda Industrialists which helps students find appropriate industry facilities for practice sessions. Students mentioned that they got assistance from the College in finding suitable places for practice. It seems not to be difficult to get a suitable place. The College has expressed itself satisfied with the arrangements.

There is a list on the College website of all agreements between KVK and industry partners. These agreements specify who does what. Students do not generally get paid for placements but may receive a bonus from the employer if they perform well.

The KVK college library has developed a database of materials available to students, both in Klaipeda and elsewhere. The SER states that staff and students can “subscribe” to other relevant databases; and during the visit by the Review Team it was established that electronic material is available to students free of charge. The library has been increasing its stock of materials related to Food Technology in recent years but there was a sharp decline in acquisitions in 2014 (Table 13 of SER). No explanation for the reduction was given to the Review Team.

An important development has been the implementation of *Moodle* as an e-learning platform. While Moodle is being used by all or almost all lecturers, it has great potential for making material available to students and so its further development should be encouraged.

2.5. Study process and students' performance assessment

Admission to the programme is organised through General Admissions system of Higher Education Institutions (LAMA BPO). The Admissions requirements are based on national guidelines and are well founded. There can be a problem where some students have studied Chemistry in high school while others have not. The college seeks to overcome this problem by offering the subject General Chemistry in the first semester and by providing consultations for

any students who struggle. This undoubtedly adds to the teacher workload but it would be unfair to exclude all students who did not study Chemistry previously. The number of applicants is a healthy multiple of the number of places available. In each recent year a total of 36 students have been admitted to the full-time programme. In view of the fact that KVK is operating at the limit in regard to space per student (see section 2.4 above), KVK has capped entry at 36 per annum.

There is strong support for the programme in the Western region of Lithuania, the region in which KVK is situated.

KVK monitors the dropout rate on both full-time and part-time programmes. Their analysis shows that dropout on full-time courses may be caused by a lack of motivation on the part of students (perhaps because they have chosen the wrong programme) while dropout by part-time students is often caused by employers refusing to release the students.

Students felt that the information on the FTSP available to students in advance of enrolling could be improved. They said it could be found on the internet but is not readily accessible. It seems to the Review Team that this area should be reviewed by KVK as it may help to avoid dropout by students shortly after enrolling.

There is no special provision of routes into the programme for students with a disability (although KVK does provide equipment to assist students with a disability) or students from a socio-economic disadvantaged background. In view of the increased emphasis being put on such admissions by the Ministers of Education in the Bologna Process, KVK would be wise to plan its actions in this area.

Classes are provided Monday to Thursday for full-time students but no classes on Fridays. There may however, be consultations with teachers on a Friday. The students liked this arrangement.

It seems to be the case that the study process ensures an adequate provision of the programme and the achievement of the learning outcomes in view of the success rate of students who enrol. There is a strong emphasis on the collegial nature of responsibility so that all staff members share the responsibility. There is a Study Programme Committee which includes teachers, students and Social Partners in its membership. Teachers, students, graduates and employers were all happy with the operation of the programme Committee' Overall, the Review Team was happy with the organisation of the programme and concluded that a well-thought-out programme has been implemented.

However, the non-completion rate of students has been relatively high in some years and this problem needs to be addressed by the programme management.

All teachers use Moodle e-learning platform and find it very useful; students also mentioned that they find it helpful.

All students must write a Final Thesis and KVK has produced a very useful handbook/manual to assist students in this project.

Steps have been taken to encourage students to participate in research activities. Some success has come from these efforts; in the three-year period 2011-14 there were 23 articles or presentations by students at national conferences. But total of 23 articles in a three year period indicates that only a minority of students are involved. KVK should continue with its encouragement of such activity until every student prepares at least one paper or presentation. The articles which were prepared were done under the supervision of staff members which is a positive. However, much more could be done if staff members were more research active and if they engaged students in their research activities.

KVK participates in the Erasmus Programme and has been awarded the Erasmus Charter; the programme management organises presentations to students to persuade them to undertake studies abroad. But the efforts have not achieved much success to date as only 8 students have gone abroad in the four-year period 2010-14. This is far too low, well below the European target of 20% of all students to have studied outside their home country by 2020. Efforts will have to be re-doubled in this regard. Apart from the possibility of students going abroad for study, students can also go abroad for internships. In many instances this is a good way for students to gain international experience despite their limited ability in a foreign language. But students of KVK have not availed of this opportunity in large numbers.

Students who met the Review Team said that students who studied abroad encountered difficulties in having the credits they earned abroad applied to their academic record; as a result, they had to complete extra subjects/modules to make up the deficiency. If true, this is contrary to the spirit and rules of the Erasmus programme and KVK management should take immediate steps to remedy the situation.

There are schemes in place to assist students including social grants. There are dormitories for students on the campus and the rooms are equipped with Wi-Fi for internet access. Many sports are organised including basketball, football, shooting, hand wrestling, volleyball and track and field events. There is not emphasis on cultural events such as debating societies or drama.

KVK prides itself on the methods it has developed to ensure fair student performance. The method is based on continuous monitoring of student performance. Continuous monitoring, with feedback to students, gives each student every opportunity to discover his/her weaknesses and to make good any deficiencies. It is student-centred, as advocated by Ministers of Education in the Bologna Process, and it is very favourable to students. Students, who met the Review Team, commented favourably on the feedback they got from teachers if they failed an

examination. They also felt that KVK was very flexible in organising repeat examinations where they were necessary.

The examination regulations are publicly available and are known to the students.

The success rate of graduates obtaining employment is measured each October/November. In the most recent study, 90% of the 2014 graduating class had secured employment, 71% of them in their own professional field. These are very impressive figures.

2.6. Programme management

The approach taken at KVK to ensure that the programme is well managed is based on the philosophy that every staff member is involved in ensuring the success of the programme. This is a good approach to take. Students are also held responsible for their own progress.

Formal responsibility for the programme is exercised by the Programme Committee and by the Academic Council. This procedure is in accordance with best practice internationally and the membership and operation of both the Programme Committee and the Academic Council is satisfactory.

KVK has been awarded the Diploma Supplement Charter by the European Commission. This award is relatively rare and the success of KVK in gaining it indicates the highest standard in implementing the Diploma Supplement.

Data on the implementation of the programme is collected regularly and is analysed. There are regular surveys among students at the end of each semester and the outcomes are discussed by the Programme Committee. Students indicated to the Review Team that their experience was that sometimes the suggestions they made were implemented, sometimes not. Overall, they were happy with the extent to which they were consulted on the programme. Graduates also mentioned that they had been consulted by e-mail on proposed changes to the programme and they had submitted their comments. At the end of each academic year there is a discussion in the FT Department of the outcome of teachers' pedagogical and research activity to discover what changes are necessary.

In preparation for this review of the programme there was a series of surveys among students, teachers and social partners. The survey among students found high levels of satisfaction about most features of the programme. But only 43% of students were satisfied with the procedure for choosing elective subjects. Having identified the extent of the student disquiet, there is a responsibility on the programme managers to address the problem.

The survey among teachers found very high levels of satisfaction with the programme and that 87% of teachers are directly cooperating with stakeholders. The survey among stakeholders indicated a high level of satisfaction among employers about the quality of graduates and their willingness to take students on placement.

There is evidence that the management use the outcome of surveys to improve the programme. There is also clear evidence that KVK has implemented the recommendations of the 2012 SKVC review and has thereby improved the programme. For example, the programme now focuses on three competences which were identified by food company executives in a survey conducted by FT staff. These competences are to be able to evaluate food raw materials, to comprehend food technology processes and to control food technological production process. In relation to the 2012 SKVC review, the college has upgraded the technology teaching facilities in the Fish, Meat and Catering Technology areas.

It is clear that stakeholders were surveyed and that a major meeting of employers and graduates was held in March 2014 to discuss the situation in the labour market and the development of competences of FT graduates. But it is not clear that there is any formal mechanism for consulting either employers or graduates on a regular basis (although it is clear that employers are represented on the Academic Council and involved in the assessment of final theses.). Graduates who met the Review Team indicated they are in regular contact with individual teachers (which is good for the College) but that they are not members of an Alumni organisation. It is recommended that KVK gives consideration to ways in which the contribution of employers and graduates could be formalised. One way to strengthen the links with employers is via the provision of more short courses in areas such as HACCP (which they said they would welcome). And graduates could be given membership of an alumni club if such were established.

A quality assurance system has been developed and implemented based on ISO 9001 and EFQM. As mentioned earlier in this report, staff members and students are given a high level of responsibility for their own endeavours. The results of surveys of students, teachers and others are used as a basis for discussion to develop an improvement plan. There is also a commitment by KVK management to publicise quality assessment reports and thus the conclusions of the 2012 report by the SKVC expert panel are published on the KVK website.

The Review Team was satisfied that the KVK internal quality assurance measures are effective and efficient and furthermore that they are in line with European Standards and Guidelines.

2.7. Examples of excellence*

The arrangements between KVK and the Klaipeda Tourism School are excellent for the FT SP students in that it gives access to modern food facilities. It is also excellent as an approach to achieving the best return on investment for public investment in education.

The philosophy of programme management whereby all participants, including teachers and students, take responsibility for the process worked very well.

III. RECOMMENDATIONS

1. Improvements to FT programme curriculum are recommended as follows:

- Some bibliographies need to be updated.
- There should be more emphasis on issues related to water in food industry and food waste.
- There should be a focus on Food Distribution including the Marketing of Food.
- Auditing for Food Safety deserves more attention in the programme.

2. Teachers should be encouraged to undertake more research and to involve students in their research projects.

3. There should be further investment in facilities to support research.

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. KVK should acquire an experimental plant for Food Technology to enable staff and students to undertake food product development and analysis of production systems.

7. The use of Moodle is greatly appreciated by students so its use should be further extended.

8. The information available on the website for potential students needs to be reviewed with a view to reducing the number of students who enrol based on a misunderstanding of the situation.

9. The ways in which KVK could facilitate the admission of students with a disability or students from a background of socio-economic disadvantage should be investigated.

10. Student mobility outside Lithuania needs to be greatly expanded. One inhibiting issue is the belief among students that it is very difficult to apply the ECTS credits earned abroad, hence mobility involves extending the duration of the programme.

11. KVK management should devise a new system for students to choose electives as the current system does not enjoy the confidence of student.

12. While social partners and graduates are consulted about programme changes, the method of consulting them would benefit from formalisation e.g. by establishment of an Alumni Association.

IV. SUMMARY

The programme commenced in 2002 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. The learning outcomes of subjects/modules are well related to the programme learning outcomes and all the relevant parties (students, alumni, employers) expressed themselves pleased with the learning outcomes.

Employers were involved in the development of the current programme and all teaching staff members were consulted. The programme meets 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.

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 and that students should be more involved in the research activity. There are also some suggestions for improvement in curriculum design by more focus on Water, Food Waste, Food Distribution and Food Safety.

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 very little staff turnover. 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 be introduced.

KVK has invested in improved laboratories in recent years and this process should continue to enhance research facilities, as funds permit. It has also entered into an agreement with Klaipeda Tourism School whereby students of FT SP can use the food laboratories of the school; this is an excellent arrangement. There is a good system of practice placements for students but the number availing of opportunities for internships or studies outside Lithuania is disappointing and requires more effort. The KVK college library has developed a database of materials available to students, both in Klaipeda and elsewhere and electronic material from other libraries is available to students free of charge.

The e-learning platform Moodle is used by most lecturers but it is recommended that it be adopted by all lecturers. The possibility of sharing Moodle resources with other HEIs in Lithuania should be explored.

The current admissions procedures meet national guidelines and 36 students are recruited each year for both the full-time and part-time FT programmes. Some consideration should be given to extending opportunities for students with disabilities and students from socio-economic disadvantaged backgrounds as these categories are being encouraged within the Bologna Process. It is also recommended that the information available on the KVK website for potential students be improved. While students have the opportunity for international mobility they do not take up the opportunities in great numbers; more encouragement by staff is required.

Classes are organised at times to suit students which pleases the students. Each student must write a Final Thesis and there is a very good manual developed by KVK to assist them in this task.

The assessment of students' performance is clear, adequate and publicly available. However, the system whereby students select electives does not enjoy the confidence of students and accordingly the Review Team recommends that this be reviewed.

The majority of graduates whom the Review Team met were employed in jobs that were relevant to the programme they studied.

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 KVK, lecturers, students) to share in the programme management. There is a good Programme Committee and Academic Council in operation. KVK has been awarded the Diploma Supplement Charter by the European Commission. There are just two deficiencies in the Programme Management: the arrangements for consulting employers and graduates, while active, would benefit from being formalised and secondly the methods whereby students choose their electives are disliked by a high percentage of students.

V. GENERAL ASSESSMENT

The study programme *Food Technology* (state code – 653E40002) at Klaipėda State 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. Aušra Išarienė

Ms. Inga Kalpakovaitė

**KLAIPĖDOS VALSTYBINĖS KOLEGIJOS PIRMOSIOS PAKOPOS STUDIJŲ
PROGRAMOS MAISTO TECHNOLOGIJOS (VALSTYBINIS KODAS – 653E40002)
2015-07-24 EKSPERTINIO VERTINIMO IŠVADŲ NR. SV4-222 IŠRAŠAS**

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VI. APIBENDRINAMASIS ĮVERTINIMAS

Klaipėdos valstybinės kolegijos studijų programa *Maisto technologijos* (valstybinis kodas – 653E40002) vertinama **teigiamai**.

Eil. Nr.	Vertinimo sritis	Srities įvertinimas, balais*
1.	Programos tikslai ir numatomi studijų rezultatai	3
2.	Programos sandara	3
3.	Personalas	3
4.	Materialieji ištekliai	3
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)

<...>

V. SANTRAUKA

Studijų programa, pradėta dėstyti 2002 m., vykdoma nuolatinių ir iššestinių studijų forma. Bendras programos tikslas – parengti kompetentingus maisto technologijų (MT) specialistus. Programos tikslai ir studijų rezultatai yra gerai apibrėžti ir aiškūs, o ryšys tarp šių rezultatų ir Dublino aprašų yra akivaizdus. Dalykų / modulių studijų rezultatai yra susiję su programos studijų rezultatais ir visos susijusios šalys (studentai, buvę studentai, darbdaviai) pareiškė, kad yra patenkintos studijų rezultatais.

Tobulinant esamą programą dalyvavo darbdaviai ir buvo konsultuojamasi su visais dėstančiojo personalo nariais. Programa atitinka darbo rinkos reikalavimus ir jos pavadinimas, studijų rezultatai, turinys ir teikiama kvalifikacija yra suderinami tarpusavyje.

Studijų sandara atitinka visus teisinius reikalavimus, o dalykų / modulių turinys ir metodai leidžia siekti numatomų studijų rezultatų. Dėstytojų komanda iš dalies aktyviai atlieka mokslinius tyrimus, tačiau vertinimo grupė padarė išvadą, kad šią sritį dar reikėtų tobulinti ir studentai turėtų būti aktyviau įtraukiami į tiriamąją veiklą. Taip pat siūloma gerinti studijų sandarą, daugiau dėmesio skiriant vandens naudojimui, maisto atliekoms, maisto platinimui ir maisto saugai.

Programą teikia personalo nariai, atitinkantys teisinius reikalavimus, tačiau reikėtų stengtis didinti daktaro laipsnį įgijusių darbuotojų skaičių. Personalo narių skaičius yra adekvatus siekiant užtikrinti studijų rezultatus, o personalo kaita yra itin maža. Pabrėžiama dėstančiojo personalo tobulinimosi svarba, tačiau ekspertai rekomenduoja įtraukti privalomą reikalavimą visiems naujiems dėstytojams įgyti pedagogo kvalifikaciją.

Pastaraisiais metais KVK investavo į laboratorijų atnaujinimą, o toliau, esant lėšų, reikėtų gerinti mokslinių tyrimų patalpas. Yra sudaryta sutartis su Klaipėdos turizmo mokykla, kurioje MT studijų programos studentai gali naudotis mokyklos laboratorijomis; tai – puikus

susitarimas. Galioja veiksminga studentų praktikos vietų skyrimo sistema, tačiau studentų, pageidaujančių pasinaudoti stažuočių ar studijų už Lietuvos ribų galimybėmis, skaičius nuvilia; jį reikėtų didinti. KVK bibliotekoje yra sukurta medžiagos duomenų bazė, kuria gali naudotis studentai tiek Klaipėdoje, tiek kitose vietose, taip pat studentai gali nemokamai naudotis elektronine medžiaga iš kitų bibliotekų.

Elektroninio mokymosi platforma *Moodle* naudojasi dauguma dėstytojų, tačiau rekomenduojama, kad ja būtų naudotis visi dėstytojai. Vertėtų pasidomėti galimybe dalytis *Moodle* platformos ištekliais su kitomis Lietuvos aukštojo mokslo institucijomis.

Dabartinės priėmimo procedūros atitinka nacionalines gaires, kasmet priimami studijuoti 36 nuolatinių ir iššestinių MT studijų programos studentai. Reikėtų apsvarstyti galimybes, kaip būtų galima padėti studentams su negalia ir studentams iš nepalankios socio-kultūrinės aplinkos, tą skatina ir Bolonijos procesas. Taip pat rekomenduojama koreguoti KVK svetainėje potencialiems studentams skelbiamą informaciją.

Nors studentams yra sudarytos galimybės išnaudoti tarptautinio judumo galimybes, tačiau gana daug studentų tokiomis galimybėmis nepasinaudoja. Personalas turėtų labiau skatinti studentus dalyvauti šiose programose.

Paskaitos organizuojamos studentams palankiu laiku. Kiekvienas studentas turi parašyti baigiamąjį darbą, o KVK turi sudariusi labai gerą vadovą, kuriuo vadovaujantis studentams yra lengviau parašyti baigiamuosius darbus.

Studentų darbo vertinimas yra aiškus, adekvatus ir viešai prieinamas. Tačiau studentai nepasitiki sistema, kurioje galima pasirinkti laisvai pasirenkamus dalykus, todėl vertinimo grupė rekomenduoja peržiūrėti šį klausimą.

Dauguma absolventų, su kuriais vertinimo grupė susitiko, dirbo tokius darbus, kurie atitiko jų baigtą studijų programą.

Programos vadyba iš esmės yra labai gera, apimanti duomenų rinkimą bei duomenų apie programos įgyvendinimą analizę. Vadovybė taiko puikią filosofiją, kuri skatina visus socialinius dalininkus (KVK vadovus, dėstytojus, studentus) būti atsakingus už programos vadybą. Sėkmingai veikia Programos komitetas ir Akademinė taryba. Europos Komisija suteikė KVK diplomo priedėlio etiketę. Programos vadyba turi tik du trūkumus: pirmasis – darbdavių ir absolventų informavimo procedūra, kuri veikia, bet ją reikėtų formalizuoti; ir antrasis – metodai, kuriais studentai pasirenka laisvai pasirenkamus dalykus, netenkina didžiosios dalies studentų.

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III. REKOMENDACIJOS

1. Rekomenduojami šie MT programos sandaros patobulinimai:
 - Atnaujinti kai kurias bibliografijas.
 - Skirti daugiau dėmesio klausimams, susijusiems su vandeniu, naudojamu maisto pramonėje, ir maisto atliekomis.
 - Atkreipti dėmesį į maisto platinimą, įskaitant maisto rinkodarą.
 - Daugiau dėmesio programoje skirti maisto saugos auditui.
2. Dėstytojus skatinti vykdyti daugiau mokslinių tyrimų, o į mokslinių tyrimų projektus įtraukti ir studentus.
3. Siekiant remti mokslinius tyrimus, toliau investuoti į patalpas.
4. Stengtis didinti dėstytojų, turinčių daktaro kvalifikaciją, skaičių. Tai būtų galima daryti arba samdant personalą, jau turintį daktaro laipsnį, arba padedant esamiems personalo nariams įgyti daktaro laipsnį.
5. Visiems naujiems dėstytojams būtina privalomai įgyti antrosios pakopos laipsnį pedagogikoje.
6. KVK rekomenduojama įsteigti eksperimentinę maisto technologijos įmonę, kurioje personalas ir studentai tobulintų maisto produktų gamybą ir atliktų gamybinių sistemų analizę.

7. Studentai labai vertina galimybę naudotis *Moodle* platforma, todėl ji turėtų būti toliau plėtojama.
8. Reikėtų peržiūrėti svetainėje potencialiems studentams skirtą informaciją, siekiant mažinti studentų, įstojančių į šią studijų programą dėl klaidingo situacijos supratimo, skaičių.
9. Reikėtų išnagrinėti būdus, kuriais KVK galėtų palengvinti neįgalių studentų arba studentų iš nepalankios socio-ekonominės aplinkos priėmimą.
10. Reikėtų itin išplėsti studentų judumą už Lietuvos ribų. Viena iš kliūčių yra studentų įsitikinimas, kad užsienyje gautus ECTS kreditus labai sunku pritaikyti studijoms, todėl judumas reikštų programos trukmės pratęsimą.
11. KVK vadovybė turėtų sukurti studentams naują sistemą, kurioje jie galėtų pasirinkti laisvai pasirenkamus dalykus, nes studentai nepasitiki dabartine sistema.
12. Nors socialiniai partneriai ir absolventai yra informuojami apie programos pokyčius, jų informavimo metodas galėtų būti formalizuotas, pavyzdžiui, steigiant alumnų asociaciją.

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2.7. Išskirtinės kokybės pavyzdžiai *

Susitarimai tarp KVK ir Klaipėdos turizmo mokyklos yra naudingi MT studijų programos studentams, nes tokiu atveju jie gali naudotis moderniomis maisto gamybos patalpomis. Tai taip pat puikus būdas, kuriuo galima pasiekti didžiausią viešųjų investicijų grąžą į švietimą.

Programos vadybos filosofija, pagal kurią visi dalyviai, įskaitant dėstytojus ir studentus, prisiima atsakomybę už procesą, yra labai veiksminga.

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Paslaugos teikėjas patvirtina, jog yra susipažinęs su Lietuvos Respublikos baudžiamojo kodekso 235 straipsnio, numatančio atsakomybę už melagingą ar žinomai neteisingai atliktą vertimą, reikalavimais.

Vertėjos rekvizitai (vardas, pavardė, parašas)