



### A. Introduction

The onsite visit of the External Evaluation Committee (EEC) has been conducted in the format of several remote video conference meetings being organized by CYQAA on November 24-25, 2020. The EEC had video conference meetings with the Rector of the Institute, the Dean of the Faculty, coordinators of the BSc, MSc, and PhD programs, the teaching personnel, students graduated from the BSc, MSc, and PhD programs, as well as supporting personnel. The discussions and Q&A-sessions were based on detailed documents (among others Self Evaluation Reports with supporting annexes by the institution), which were distributed in advance among the members of the EEC. In addition to the printed materials provided, representatives (management, senior scientists, PhD students, post-docs, supporting staff) gave informative PowerPoint presentations and there have been video clips about the teaching and research facilities with English subtitles made available and displayable to the members of the EEC. The video conference meetings provided important information and insights not available in other materials. The committee took into account international trends and developments in science, society and higher education as it formed its judgement. In addition, the committee bore in mind the local rules and regulations as outlined in the documents and communicated during the online site visit.

Name	Position	University
Prof. Dr. Reiner Doluschitz	University Professor	University of Hohenheim, Stuttgart, Germany
Prof. Dr. Corné Pieterse	Professor Plant-Microbe Interactions and Scientific Director of the Institute of Environmental Biology	Utrecht University, the Netherlands
Prof. Dr. Pirjo Mäkelä	Professor of Crop Science	University of Helsinki, Finland
Georgios Spyrou	President	Registry Council of Agricultural Scientists (Συμβούλιο Γεωπόνων), Cyprus
George Retsides	Student Environmental and Food Chemistry	University of Cyprus

#### **B.** External Evaluation Committee (EEC)



# **1.** Study program and study program's design and development (ESG 1.1, 1.2, 1.7, 1.8, 1.9)

## Sub-areas

- 1.1. Policy for quality assurance
- **1.2.** Design, approval, on-going monitoring and review
- 1.3. Public information
- 1.4. Information management

## **1.1 Policy for quality assurance**

#### <u>Standards</u>

- Policy for quality assurance of the program of study:
  - has a formal status and is publicly available
  - supports the organisation of the quality assurance system through appropriate structures, regulations and processes
  - supports teaching, administrative staff and students to take on their responsibilities in quality assurance
  - o ensures academic integrity and freedom and is vigilant against academic fraud
  - o guards against intolerance of any kind or discrimination against the students or staff
  - supports the involvement of external stakeholders

#### 1.2 Design, approval, on-going monitoring and review

#### Standards

- The program of study:
  - is designed with overall program objectives that are in line with the institutional strategy and have explicit intended learning outcomes
  - o is designed by involving students and other stakeholders
  - o benefits from external expertise
  - reflects the four purposes of higher education of the Council of Europe (preparation for sustainable employment, personal development, preparation for life as active citizens in democratic societies, the development and maintenance, through teaching, learning and research, of a broad, advanced knowledge base)
  - o is designed so that it enables smooth student progression
  - is designed so that the exams' and assignments' content corresponds to the level of the program and the number of ECTS
  - o defines the expected student workload in ECTS
  - o includes well-structured placement opportunities where appropriate
  - o is subject to a formal institutional approval process
  - results in a qualification that is clearly specified and communicated, and refers to correct level of the National Qualifications Framework for Higher Education and, consequently, to the Framework for Qualifications of the European Higher Education Area
  - is regularly monitored in the light of the latest research in the given discipline, thus ensuring that the program is up-to-date
  - is periodically reviewed so that it takes into account the changing needs of society, the students' workload, progression and completion, the effectiveness of procedures for assessment of students, student expectations, needs and satisfaction
  - o is reviewed and revised regularly involving students and other stakeholders

**ΔΙΠΑΕ** CYQAA

ΦΟΡΕΑΣ ΔΙΑΣΦΑΛΙΣΗΣ ΚΑΙ ΠΙΣΤΟΠΟΙΗΣΗΣ ΤΗΣ ΠΟΙΟΤΗΤΑΣ ΤΗΣ ΑΝΩΤΕΡΗΣ ΕΚΠΑΙΔΕΥΣΗΣ

CYPRUS AGENCY OF QUALITY ASSURANCE AND ACCREDITATION IN HIGHER EDUCATION

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### **1.3 Public information**

Standards

- Regarding the program of study, clear, accurate, up-to date and readily accessible information is published about:
  - o selection criteria
  - o intended learning outcomes
  - o qualification awarded
  - o teaching, learning and assessment procedures
  - o pass rates
  - o learning opportunities available to the students
  - o graduate employment information

#### **1.4 Information management**

<u>Standards</u>

- Information for the effective management of the program of study is collected, monitored and analysed:
  - key performance indicators
  - o profile of the student population
  - o student progression, success and drop-out rates
  - o students' satisfaction with their programs
  - o learning resources and student support available
  - o career paths of graduates
- Students and staff are involved in providing and analysing information and planning followup activities

## <u>Findings</u>

#### Findings for BSc in Agricultural Sciences, Biotechnology and Food Science

The objective of the BSc undergraduate program is to provide education in Agriculture covering all areas of agricultural activity and processing of agricultural and livestock products. The educational program aims to make graduates capable of working as consultants in the crop or animal science and production and/or food science and technology of agricultural products, depending on the direction they choose, and / or as consultants for rural development.

The policy for quality assurance of the program of study is well in place and follows the quality assurance system installed by the university. The formal cycle of evaluation, feedback and improvement of the study program is complemented with informal feedback moments provided by the students during and at the end of the courses. Academic integrity and plagiarism are well addressed and systems are in place to prevent fraud. External stakeholders have a say in the design of the program, safeguarding that the content of the study program aligns with the needs of the field.

The design, approval, on-going monitoring and review of the study program complies to international standards. It is in line with the strategy of the department to educate students in the area of agri-food. Teachers have regular contacts with stakeholders in the field, keeping the program up to date and in line with the needs. The course program is well-designed following a structure of increasing complexity, yet providing the students with plentiful options to give direction to their own learning program. Learning objectives are communicated to the students and the study load seems to resemble the ECTS workload. The study program



is continuously monitored and improved according to the evaluation cycle. Approval process for innovations or new courses is highly bureaucratic, requiring many levels of discussions and gremia for approval.

Public information about the study program, selection, learning outcomes, assessment procedures, employment information is well in place, either via the website, study guides and career services.

Information management of the study program is performed via the university student information portal SIS through which teachers and students are monitored and informed. It must be noted that a lot of administrative tasks are placed on the shoulders of the academic teaching staff, which unnecessarily distracts from their core business: teaching and performing research.

Based on the self-evaluation and accompanying documents and the onsite visit the EEC concludes that the BSc program is compliant to all standards described under 1.1, 1.2., 1.3 and 1.4.

#### Findings for MSc in Agricultural Biotechnology

The MSc program aims to provide postgraduate education of a high standard and generate graduates in the field of Agricultural Biotechnology in its broad sense, able to support the country's competitiveness and productivity, by providing services, expertise and research, leading to direct and indirect positive effects on the social and economic developmental at the regional and national level. The program of study has been designed to generate graduates able to support the country's competitiveness and productivity, by providing services, expertise and research, leading to direct positive effects on the social and economic development in the field of Agricultural Biotechnology at the regional and national level.

The MSc program is designed as a follow-up of the above-described BSc program, using the same departmental and university teachers and systems. Hence, the findings of the EEC related to the MSc study program and MSc study program's design and development (Sub-areas 1.1 to 1.4) are very similar to those described under the Findings for the BSc program.

Based on the self-evaluation and accompanying documents and the onsite visit the EEC concludes that the MSc program is compliant to all standards described under 1.1, 1.2., 1.3 and 1.4.

#### Findings for PhD in Agricultural Sciences, Biotechnology and Food Science

The PhD program provides specialized knowledge and research skills in broader field of Agricultural Sciences, Biotechnology and Food Science. The primary purpose of the program is to ensure scientific competence, specialization, and the cultivation of high-level skills and knowledge in research in a range of research areas. Doctoral studies aim at achieving high quality scientific research, as well as developing the candidate's potential to work in science. The doctoral program trains researchers in being able to work on their own or in groups to carry out research, from the design to the execution and publication of the results.

For PhD candidates without a MSc degree, the course program of the MSc program Agricultural Biotechnology is compulsory and the findings described above apply here as well. Applicants with a Master's degree are exempted from the coursework of the PhD program, with the exception of the course "Experimental Design and Biostatistics" and the course "Post-graduate seminars". The PhD program further consists of a comprehensive examination and submission of a research proposal, performing research and preparation and submission of a dissertation, and a public defense of the dissertation. The policy for quality assurance and student mentoring and monitoring is well in place.

Based on the self-evaluation and accompanying documents and the onsite visit the EEC concludes that the PhD program is compliant to all standards described under 1.1, 1.2., 1.3 and 1.4.



#### Strengths for BSc in Agricultural Sciences, Biotechnology and Food Science

The BSc program offers a comprehensive, state-of-the-art, contemporary curriculum in Agricultural Sciences, Biotechnology and Food Science. As the only broad BSc curriculum on Agricultural Sciences/Agri-Food in Cyprus, it excellently serves an important national purpose. The study program is well-designed, continuously monitored and improved involving teachers, students and stakeholders.

#### Strengths for MSc in Agricultural Biotechnology

The MSc program is focused on three distinct specializations: Plant, Animal or Food Biotechnology, each serving an important part of the stakeholders in the Agri-food sector. The study program is a good follow-up of the BSc program. It is well-designed, and similar to the BSc program continuously monitored and improved involving teachers, students and stakeholders.

#### Strengths for PhD in Agricultural Sciences, Biotechnology and Food Science

The PhD program is focused on achieving high quality scientific research in the science fields of the academic staff. The coursework is based on the MSc program described above. The PhD specific course program is designed towards academic skill training and in-depth knowledge about the state of the art of the science field.

### Areas of improvement and recommendations

## Areas of improvement and recommendations for BSc in Agricultural Sciences, Biotechnology & Food Science

The administrative burden for the academic teaching staff is unnecessarily high for activities related to course evaluations and course administration. Administrative workload should be relieved by administrative clerks dedicated to the department. This would further increase the quality of the study program as teachers can dedicate their time to their core business.

The design and approval process for innovations or new courses is highly bureaucratic, requiring many levels of discussions and gremia for approval. Again, the majority of the workload is placed on the shoulders of the teachers. The EEC strongly advices to revisit the complexity of the different procedures to reach a good balance between quality assurance and administrative workload.

Potential fields of making the study program (throughout BSc, MSc and PhD) even more complete could be Bioinformatics, Agricultural Economics, Agricultural Engineering, and Digital Agriculture.

#### Areas of improvement and recommendations for MSc in Agricultural Biotechnology

The recommendations mentioned under the BSc program also applies for the MSc program. Specific for the MSc program: in order to minimize the administrative burden when applying for new study programs, one may consider organizing additional "tracks" in the existing MSc program. This allows for administrative-light improvements/changes in the curriculum. Additionally, both students and stakeholders noted that besides Greek, communication in the English language would be appreciated. MSc students with the ambition to go abroad will benefit from it. The MSc program may also attract more international students. And the stakeholders find it important because in their work field communication with international partners is performed in English.

#### Areas of improvement and recommendations for PhD in Agricultural Sciences, Biotechnology & Food Science

The design and quality assurance of the PhD program is in line with international standards. Involvement of stakeholders may be further improved, for instance by organizing annual or bi-annual meetings with stakeholders during which the research of the PhD candidates can be showcased. This may improve further



engagement of stakeholders in research projects and promote awareness of the PhD students about their career perspectives.

There is room for improvement for increasing the awareness of the PhD students about their career perspective. Opportunities in academia are limited, hence a dedicated course or training on career perspective is advised.

		Non-compliant/		
Sub-area		Partially Compliant/Compliant		
		BSc in Agricultural	MSc in	PhD in Agricultural
		Sciences, Biotechnology	Agricultural	Sciences, Biotechnology
		& Food Science	Biotechnology	& Food Science
1.1	Policy for quality assurance	Compliant	Compliant	Compliant
1.2	Design, approval, on-going monitoring and review	Compliant	Compliant	Compliant
1.3	Public information	Compliant	Compliant	Compliant
1.4	Information management	Compliant	Compliant	Compliant



## **2.** Student – centred learning, teaching and assessment (ESG 1.3)

#### <u>Sub-areas</u>

- 2.1 Process of teaching and learning and student-centred teaching methodology
- 2.2 Practical training
- 2.3 Student assessment

### 2.1 Process of teaching and learning and student-centred teaching methodology

## <u>Standards</u>

- The process of teaching and learning supports students' individual and social development.
- The process of teaching and learning is flexible, considers different modes of delivery, where appropriate, uses a variety of pedagogical methods and facilitates the achievement of planned learning outcomes.
- Students are encouraged to take an active role in creating the learning process.
- The implementation of student-centered learning and teaching encourages a sense of autonomy in the learner, while ensuring adequate guidance and support from the teacher.
- Teaching methods, tools and material used in teaching are modern, effective, support the use of modern educational technologies and are regularly updated.
- Mutual respect within the learner-teacher relationship is promoted.
- The implementation of student-centred learning and teaching respects and attends to the diversity of students and their needs, enabling flexible learning paths.
- Appropriate procedures for dealing with students' complaints regarding the process of teaching and learning are set.

#### **2.2 Practical training**

#### Standards

- Practical and theoretical studies are interconnected.
- The organisation and the content of practical training, if applicable, support achievement of planned learning outcomes and meet the needs of the stakeholders.

#### 2.3 Student assessment

<u>Standards</u>

- Assessment is consistent, fairly applied to all students and carried out in accordance with the stated procedures.
- Assessment is appropriate, transparent, objective and supports the development of the learner.
- The criteria for and method of assessment, as well as criteria for marking, are published in advance.
- Assessment allows students to demonstrate the extent to which the intended learning outcomes have been achieved. Students are given feedback, which, if necessary, is linked to advice on the learning process.
- Assessment, where possible, is carried out by more than one examiner.
- A formal procedure for student appeals is in place.
- Assessors are familiar with existing testing and examination methods and receive support in developing their own skills in this field.
- The regulations for assessment take into account mitigating circumstances.



## <u>Findings</u>

#### Findings for BSc in Agricultural Sciences, Biotechnology and Food Science

The program of study has been designed to educate, train and support the individual academic and social development of students in the Agricultural field. The diversity of students and their interests and needs is taken into account in the course planning. Students with specific educational support are acknowledged and the Student Development Center assists students when needed.

Used teaching methods, tools and materials allow flexibility and support the use of modern technologies where appropriate, such as Moodle–based essays and quizzes. In the discussions with personnel and students, the excellent student-teacher relationships were highlighted. Furthermore, the internships not only support practical learning but also push students to apply their theoretical knowledge in practice.

In the program of study the theoretical and practical part are interconnected and several practical training methods are included in the program, for example field trips, laboratory practice, projects, and workshops. Since stakeholder opinions are taken into account while planning the program of study, the learning outcomes also support the needs of the stakeholders.

The assessment methods and criteria are published in advance by the beginning of each semester. Nearly all courses emphasize continuous assessment, which allows continuous evaluation of the learning process thus supporting the development of the learner. Even though assessment is carried out mainly by one examiner, common assessment criteria are used which ensures objective and appropriate assessment.

The program of study follows the procedures defined at the level of the Department and the University for student's complaints and appeals.

Based on the self-evaluation and accompanying documents and the onsite visit the EEC concludes that the BSc program is compliant to all standards described under 2.1, 2.2. and 2.3.

#### Findings for MSc in Agricultural Biotechnology

The diversity of students and their needs is taken into account in the course planning. Students can choose either full or part time studies which is also accounted for in timing of courses. Students with specific educational support are acknowledged, the Student Development Center assists students when needed.

Used teaching methods, tools and materials allow flexibility and support the use of modern technologies where appropriate, such as Moodle–based essays and quizzes. In the discussions with personnel and students, the excellent student-teacher relationships were emphasized and highlighted.

In the program of study the theoretical and practical part are interconnected and several practical training methods are included in the program. The importance of combining research into studies is obviously increased at the MSc level. Since stakeholder opinions are taken into account while planning the program of study, the learning outcomes also support the needs of the stakeholders.

The assessment methods and criteria are published in advance by the beginning of each semester. Teachers are encouraged to use continuous assessment in their courses to support the development of the students. There is a continuous feedback system in the form of informal student-teacher discussions. MSc thesis and related research have a major role in the studies. The Department regulates the process of preparing and evaluating MSc theses, following well-defined internal specific rules. Furthermore, the MSc thesis is independently evaluated by at least two reviewers.

The program of study follows the procedures defined at the level of the Department and the University for student's complaints and appeals.

Based on the self-evaluation and accompanying documents and the onsite visit the EEC concludes that the MSc program is compliant to all standards described under 2.1, 2.2. and 2.3.



### Findings for PhD in Agricultural Sciences, Biotechnology and Food Science

The coursework for the PhD program is the same as that for the MSc in Agricultural Biotechnology and is mandatory for PhD students without a MSc degree. Upon entering the program students are assigned a three-person Supervisory Committee that guides the candidate through the program.

Used teaching methods, tools and materials allow flexibility and support the use of modern technologies where appropriate, such as Moodle–based essays and quizzes. In the discussions with personnel and students, the excellent student-teacher relationship was highlighted. The connection between theoretical and practical studies is emphasized in the PhD program to ensure PhD candidates can translate scientific theory into experimental design and implementation.

The assessment methods and criteria are published in advance by the beginning of each semester. Teachers are encouraged to use continuous assessment in their courses to support the development of the students. There is a continuous feedback system in the form of informal student-teacher discussions. The Supervisory Committee is in charge of the assessment of comprehensive examination and dissertation proposal. The PhD evaluation process is clearly defined, transparent and objective evaluation is guaranteed by the use of a three-member Examination Board involving also the Chair of the Department, the Dean and the Senate.

The program of study follows the procedures defined at the level of the Department and the University for student's complaints and appeals.

Based on the self-evaluation and accompanying documents and the onsite visit the EEC concludes that the PhD program is compliant to all standards described under 2.1, 2.2. and 2.3.

## Strengths

#### Strengths for BSc in Agricultural Sciences, Biotechnology and Food Science

The extensive list of courses is well balanced and designed and provides an appealing curriculum for BSc students with diverse interest and backgrounds. A wide variety of teaching methods are described in the compulsory and elective courses as well as in practical training. The synergy between teaching and research is evident, for example in the practicals. The students are encouraged to participate in the learning process actively, for example in workshops, group work, and seminars. Academic tutors are assigned for the first-year students. The academic teaching personnel is highly qualified, motivated and involved. The EEC applauds the close contacts between students and teaching staff.

#### Strengths for MSc in Agricultural Biotechnology

The MSc program offers an appealing and state-of-the-art educational program containing a variety of teaching methods in the courses as well as in practical training. The synergy between teaching and research is evident, for example in laboratory research projects where the students use advanced technologies and equipment. The students are encouraged to participate in the learning process actively, for example in workshops, group work, and seminars. The MSc program has a clearly defined system for the MSc thesis process and evaluation. Academic tutors are assigned for the first-year students, and later an Academic Advisor is assigned. Financial support for students is available. The academic teaching personnel is highly qualified and motivated and has short lines with the students.

#### Strengths for PhD in Agricultural Sciences, Biotechnology and Food Science

The PhD candidates are encouraged to present their work during international meetings and to reflect their own work to the international standards. A seminar program for soft skills such as scientific writing, time management, library/literature handling, and scientific communication is in place. A three-member committee is assigned to all students to safeguard. The path towards PhD degree as well as the PhD evaluation process are clearly defined and monitored systemically. The academic teaching and research supervision personnel is highly qualified and motivated.

#### Areas of improvement and recommendations



<u>Areas of improvement and recommendations for BSc in Agricultural Sciences, Biotechnology & Food Science</u> In the future, the teaching personnel could be given the opportunity to develop and diversify their teaching skills by providing support by pedagogical experts, for example by utilizing cooperating universities or networking communities if it is not possible to have someone in the university to advice the personnel. That could advance their capability to utilize teaching methods such as problem-based learning, co-operative learning, student-led project work, flipped classroom, and life-long learning as well as giving students more responsibility in teaching activities.

To involve students more actively in learning process and teaching, also student tutors and student peers should be considered. PhD students may be involved more in the teaching process of undergrad students. This will familiarize them with evaluation teaching and evaluation methods and better-equip them in case they want to pursue an academic career path.

The University could develop a system for teachers to acquire a "basic teaching qualification" and a "senior teaching qualification". In such a system, teachers can develop a teaching portfolio at different levels, which is evaluated by a university committee. Teaching is one of the most important core businesses of the university. Acknowledging the importance of teaching activities and rewarding it as equally important as research output can be highly motivating for the teaching staff. This also stimulates diversification among the teaching staff ranging from predominantly research oriented to predominantly teaching oriented, depending on the interests and capacities of the staff member.

### Areas of improvement and recommendations for MSc in Agricultural Biotechnology

Students should be encouraged to take part in teaching more actively and give them more responsibility in the learning process. This could be done by applying new methods in higher education, such as problembased learning, project learning, and student-led learning (e.g. student peers).

Another suggestion relates to the language of the MSc program of study. It was clearly stated by the former students and the stakeholders representatives that it could increase the employment possibilities and increase the number of incoming international students when the MSc program would be offered (also) in English. For many future employers of the MSc students, a good proficiency of the English language was considered important in order to communicate with international partners.

## Areas of improvement and recommendations for PhD in Agricultural Sciences, Biotechnology & Food Science

The responsibility of the PhD students to their learning processes should be increased, for example by giving them responsibilities in organizing international PhD courses (e.g. Summerschool), meetings and online seminars/journal clubs. This could increase the international interaction in the quite isolated research unit. Furthermore, a system to support the students financially could be established. The system could aid both in their living costs (stipends) as well as even more importantly in the possibility to participate in international conferences, for example once a year, and have short term research visits abroad. A system to provide the students also the possibility to gain knowledge and experience in higher education could be considered. The student interviews also indicated a clear demand for courses of scientific writing, conference presentation, English language teaching, and awareness of career perspectives.



Non-compliant/			1	
Sub-area		Partially Compliant/Compliant		
		BSc in Agricultural	MSc in	PhD in Agricultural
		Sciences,	Aaricultural	Sciences Biotechnology
		Biotechnology & Food	Biotechnology	& Food Science
		Science	Dioteennology	
2.1	Process of teaching and learning and student-centred teaching methodology	Compliant	Compliant	Compliant
2.2	Practical training	Compliant	Compliant	Compliant
2.3	Student assessment	Compliant	Compliant	Compliant



## 3. Teaching staff (ESG 1.5)

### Sub-areas

- 3.1. Teaching staff recruitment and development
- 3.2. Teaching staff number and status
- 3.3. Synergies of teaching and research

## 3.1. Teaching staff recruitment and development

<u>Standards</u>

- Institutions ensure the competence of their teaching staff.
- Fair, transparent and clear processes for the recruitment and development of the teaching staff are set up.
- Teaching staff qualifications are adequate to achieve the objectives and planned learning outcomes of the study program, and to ensure quality and sustainability of the teaching and learning.
- The teaching staff is regularly engaged in professional and teaching-skills training and development.
- Promotion of the teaching staff takes into account the quality of their teaching, their research activity, the development of their teaching skills and their mobility.
- Innovation in teaching methods and the use of new technologies is encouraged.
- Conditions of employment that recognise the importance of teaching are followed.
- Recognised visiting teaching staff participates in teaching the study program.

## 3.2. Teaching staff number and status

#### Standards

- The number of the teaching staff is adequate to support the program of study.
- The teaching staff status is appropriate to offer a quality program of study.
- Visiting staff number does not exceed the number of the permanent staff.

## 3.3. Synergies of teaching and research

<u>Standards</u>

- The teaching staff collaborate in the fields of teaching and research within the HEI and with partners outside (practitioners in their fields, employers, and staff members at other HEIs in Cyprus or abroad).
- Scholarly activity to strengthen the link between education and research is encouraged.
- The teaching staff publications are within the discipline.
- Teaching staff studies and publications are closely related to the program's courses.
- The allocation of teaching hours compared to the time for research activity is appropriate.



## <u>Findings</u>

#### Findings combined for BSc, MSc and PhD study programs

Concerning the competence of the teaching staff Chapter 3 in the Self Evaluation Report (SER) reflects on Learning and Teaching and provides clear and transparent regulations and procedures; it also includes a listing of the teaching staff with comments on respective qualifications and expertise in addition to the individual CV. The discussions with teaching staff during the remote onsite visit confirmed a good impression to the members of the External Expert Committee (EEC).

Fair, transparent, and clear processes for the recruitment and development of the teaching staff are set up in Annex IIIb - Academic Personnel Selection as part of the SER describes the Announcement of Academic positions at CUT in a quite transparent way. If this announcement form becomes regularly applied it can be assumed that these are quite clear processes.

Teaching staff qualifications are adequate to achieve the objectives and planned learning outcomes of the study programme, and to ensure quality and sustainability of the teaching and learning. It has been observed in the remote on-site visit that there is quite good English language proficiency in the group of the teaching staff.

The teaching staff is not regularly engaged in professional and teaching-skills training and development. It has been mentioned by teaching staff members during the discussions in the remote onsite visit that there is no such professional and teaching skills training by special experts at CUT. It has been reported by the EEC that in other countries such trainings are offered at a federal or even national level to ensure that potentials of such experienced trainers become fully absorbed.

Based on the self-evaluation and accompanying documents and the onsite visit the EEC concludes that the BSc, MSc and PhD programs are compliant to all standards described under 3.1, 3.2. and 3.3.

#### **Strengths**

#### Strengths combined for BSc, MSc and PhD study programs

A vital Visiting teacher Network is available; however no sufficient budget is provided by the University to make sufficiently use of it.

The Department has sufficient and well-educated teaching staff.

Research activities are visible and are linked to teaching; they also provide possibilities for involvement of students, particularly at the MSc and PhD levels. It can be summarized that research and teaching are mutually well connected.

There is good English language proficiency observed at all levels (Academic staff, Students/Graduates, Administrative staff).

Experiment research farms are linked to the Department and provide opportunities for (applied) research, which is mainly offered at the MSc and PhD levels.

The staff produces a sufficient number of scientific publications in journals of good international standard; this indicates that there is sufficient experience and quality among the teaching staff.



#### Areas of improvement and recommendations

#### Areas of improvement and recommendations combined for BSc, MSc and PhD study programs

A comprehensive teaching staff (pedagogical) training should be implemented and offered at University level. This and other improvements would ask for allocating more budget to the Department.

Permanent technical staff should be recruited for maintaining and fostering the experimental research farms and the high-end research equipment, and to support the academic staff in teaching and research.

Collaborative research with private companies could be increased and improved.

Additional teaching contents such as Bioinformatics, Agricultural Economics and Agricultural Engineering could be included, for instance by making use of expertise from visiting teaching personnel (e.g. from Greece).

Sub-area		Non-compliant/ Partially Compliant/Compliant		
		BSc in Agricultural	MSc in	PhD in Agricultural
		Sciences,	Aaricultural	Sciences,
		Biotechnology &	Riotochnology	Biotechnology &
		Food Science	вютестноюду	Food Science
3.1	Teaching staff recruitment and development	Compliant	Compliant	Compliant
3.2	Teaching staff number and status	Compliant	Compliant	Compliant
3.3	Synergies of teaching and research	Compliant	Compliant	Compliant



4. Student admission, progression, recognition and certification (ESG 1.4)

#### Sub-areas

- 4.1. Student admission, processes and criteria
- 4.2. Student progression
- 4.3. Student recognition
- 4.4. Student certification

#### 4.1 Student admission, processes and criteria

<u>Standards</u>

- Pre-defined and published regulations regarding student admission are in place.
- Access policies, admission processes and criteria are implemented consistently and in a transparent manner.

#### 4.2 Student progression

#### <u>Standards</u>

- Pre-defined and published regulations regarding student progression are in place.
- Processes and tools to collect, monitor and act on information on student progression, are in place.

#### 4.3 Student recognition

#### <u>Standards</u>

- Pre-defined and published regulations regarding student recognition are in place.
- Fair recognition of higher education qualifications, periods of study and prior learning, including the recognition of non-formal and informal learning, are essential components for ensuring the students' progress in their studies, while promoting mobility.
- Appropriate recognition procedures are in place that rely on:
  - institutional practice for recognition being in line with the principles of the Lisbon Recognition Convention
  - cooperation with other institutions, quality assurance agencies and the national ENIC/NARIC centre with a view to ensuring coherent recognition across the country

#### 4.4 Student certification

#### <u>Standards</u>

- Pre-defined and published regulations regarding student certification are in place.
- Students receive certification explaining the qualification gained, including achieved learning outcomes and the context, level, content and status of the studies that were pursued and successfully completed.



## <u>Findings</u>

### Findings for BSc in Agricultural Sciences, Biotechnology and Food Science

The student admission processes and criteria are well defined and available on the CUT website. The admission criteria are in accordance with the rules of the Ministry of Education, Culture, Sport and Youth and the Cyprus University of Technology. Admission criteria and processes are applied consistently. In short, applicants should apply to the Examinations Department and then attend the Pancyprian Exams in specific courses depending on the Access Framework. The Access Frameworks lead to the admission of candidates to the Public Higher Education Institutions of Cyprus, Greece and the Military Schools of Greece. The four courses considered per Access Framework are declared when applying for the Pancyprian Exams. On the other hand, also transfers and second degree applicants are accepted. The process and the criteria are also well defined.

Student progression is monitored in the CUT system (Student Portal), and on constant basis for example in student-teacher discussions and continuous assessment system in the courses. At least once a year, the Council of the Department holds a discussion on student performance / progress on how to improve and solve problems that arise. Students can also get a transcript of their studies at all stages of their studies.

There are pre-defined, clear regulations regarding student recognition. These regulations rely on CUT and international recognized practice and are applied consistently. The maximum total period of study for transferred students in all universities attended, is twelve semesters, of which at least four semesters are attended at the Cyprus University of Technology (CUT). The transcript of transfer students in an undergraduate course or a second degree shows the corresponding modules of the University recognized as well as the corresponding credit units of each module.

Student certification follows the published regulations and the European and international standards. Furthermore, the Department, in collaboration with the Career Office, monitors and records the professional development of graduates. At the end of their studies, students will receive the Diploma and a study transcript, a Diploma or other certificate detailing their achievements.

Based on the self-evaluation and accompanying documents and the onsite visit the EEC concludes that the BSc program is compliant to all standards described under 4.1, 4.2. and 4.3, and 4.4.

#### Findings for MSc in Agricultural Biotechnology

The student admission, processes and criteria are well defined and available on the CUT website. The positions are also separately advertised. Admission criteria are appropriate and applied consistently. Applicants must have a recognized University degree, awarded by an accredited institution in the country where it operates, or a degree evaluated as equivalent to University degree by the Cyprus Council for the Recognition of Higher Education Qualifications. Undergraduate students that are about to graduate can apply for the MSc program, considering that they expect to receive their University degree before the commencement of the MSc program. The Service of Studies and Student Affairs reviews the applications and the Coordinator of the Program and the Postgraduate Studies Committee evaluate them according to published criteria. The proposals of the Coordinator and the Postgraduate Studies Committee are submitted to the Department Council for approval.

The program of study can also be accessed by students with background other than BSc in Agricultural Sciences, Biotechnology and Food Science. In fact, the MSc program in Biotechnology retrieves graduates of different fields of study including Biology, Chemistry, Veterinary, and Pharmaceutics as well as other related scientific fields.

Student progression is monitored constantly by teachers for example as student-teacher discussions. A formal monitoring is applied at least once a year, when the Council of each Department holds a discussion on student performance / progress.



There are pre-defined, clear regulations regarding student recognition. These regulations rely on CUT and international recognized practice and are applied consistently. Student certification follows the published regulations and the European and international standards.

Based on the self-evaluation and accompanying documents and the onsite visit the EEC concludes that the MSc program is compliant to all standards described under 4.1, 4.2. and 4.3, and 4.4.

#### Findings for PhD in Agricultural Sciences, Biotechnology and Food Science

The coursework for the PhD program is the same as that for the MSc in Agricultural Biotechnology offered by the Department. Applicants with a MSc degree are exempted from the coursework of the PhD program, with a few exceptions.

The student admission, processes and criteria are available on the CUT website. Positions are separately advertised. Students can be accepted into the PhD program without a MSc degree if they have obtained a BSc with a grade of "Excellent". The program of study can also be accessed with other scientific background than agriculture. Applications are evaluated by a three-member committee consisting of academics of the Department.

Upon entering the program students are assigned a three-member Supervisory Committee which will also monitor student progression. Student progression is monitored constantly in official and unofficial meetings with the student and supervisors. Student progression is also monitored through different tasks the student will take care of during the PhD studies, for example comprehensive examination and PhD dissertation proposal.

There are predefined and published regulations for student recognition which rely on CUT and internationally recognized practice.

Based on the self-evaluation and accompanying documents and the onsite visit the EEC concludes that the PhD program is compliant to all standards described under 4.1, 4.2. and 4.3, and 4.4.

#### **Strengths**

#### Strengths combined for the BSc, MSc and PhD study programs

The whole admission process as well as the student progression monitoring, recognition and certification processes are appropriate, rigorous and transparent. Also, the special student needs are taken into account.

#### Areas of improvement and recommendations

#### Areas of improvement and recommendations for the BSc, MSc and PhD study programs

The processes of admission, progression, and recognition seem to be functional as they are. Where possible, the administrative burden for the teaching staff related to these processes could be relieved by assigning an administrative clerk to the department.



**V** 

		Non-compliant/		
Sub-area		Partially Compliant/Compliant		
		BSc in Agricultural	MSc in	PhD in Agricultural
		Sciences,	Aaricultural	Sciences,
		Biotechnology &	Piotochnology	Biotechnology &
		Food Science	ынгестноюду	Food Science
4.1	Student admission, processes and criteria	Compliant	Compliant	Compliant
4.2	Student progression	Compliant	Compliant	Compliant
4.3	Student recognition	Compliant	Compliant	Compliant
4.4	Student certification	Compliant	Compliant	Compliant



## 5. Learning resources and student support (ESG 1.6)

#### Sub-areas

- 5.1. Teaching and Learning resources
- 5.2. Physical resources
- 5.3. Human support resources
- 5.4. Student support

### 5.1 Teaching and Learning resources

<u>Standards</u>

- Adequate and readily accessible teaching and learning resources (teaching and learning environments, materials, aids and equipment) are provided to students and support the achievement of objectives in the study program.
- Adequacy of resources is ensured for changing circumstances (e.g. student numbers).
- All resources are fit for purpose.
- Student-centred learning and flexible modes of learning and teaching, are taken into account when allocating, planning and providing the learning resources.

#### 5.2 Physical resources

<u>Standards</u>

- Physical resources, i.e. premises, libraries, study facilities, IT infrastructure, are adequate to support the study program.
- Adequacy of resources is ensured for changing circumstances (e.g. student numbers).
- All resources are fit for purpose and students are informed about the services available.

#### 5.3 Human support resources

Standards

- Human support resources, i.e. tutors/mentors, counsellors, other advisers, qualified administrative staff, are adequate to support the study program.
- Adequacy of resources is ensured for changing circumstances (e.g. student numbers).
- All resources are fit for purpose and students are informed about services available.

#### 5.4 Student support

#### <u>Standards</u>

- Student support is provided covering the needs of a diverse student population, such as mature, part-time, employed and international students and students with special needs.
- Students are informed about the services available to them.
- Student-centred learning and flexible modes of learning and teaching, are taken into account when allocating, planning and providing student support.
- Students' mobility within and across higher education systems is encouraged and supported.



## <u>Findings</u>

#### Findings for BSc in Agricultural Sciences, Biotechnology and Food Science

The teaching and learning resources of the study program are at a high standard. Classrooms are adequately equipped and so are the laboratories used for practicals.

The physical resources are at a good level. The teaching staff and students praise the library and its services. Also IT support is at a high level and very supportive to teaching staff and students. The students have access to state-of-the-art equipment. The space available for practicals is of high quality, but limited in size which would hamper a further increase in student numbers. The teaching facilities are shared with the research facilities, which promotes student-teacher interactions.

Human technical support for the preparation of and assistance during practical courses, and the operation and maintenance of high-level scientific equipment is lacking due to replacement of technical personnel that was previously appointed for these purposes at the department. This poses an extra workload on the existing academic teaching staff.

Human support resources such as tutors, mentors and counsellors are available to the students, although a number of these tasks are taken up by the teaching and managing staff of the department. Administrative staff is abundantly present at the university (ratio administrative staff : teaching/scientific staff ~ 2:1). However, their expertise and services seem not adequately positioned to sufficiently relief administrative burden of the scientific/teaching staff. Hence, human teaching and learning resources could be more effectively balanced over support administrative staff and teaching staff. Human support resources at the library and IT level adequately support the study program.

At the university level, an effective student support system is at place.

Based on the self-evaluation and accompanying documents and the onsite visit the EEC concludes that the BSc program is compliant to standards described under 5.1, 5.2. and 5.4, and partly compliant to the standards described under 5.3 (better balance administrative/technical/academic teaching staff).

#### Findings for MSc in Agricultural Biotechnology

The teaching and learning resources for the MSc program are very similar to those available to the BSc program. Hence, the findings of the EEC related to the teaching and learning resources of the MSc study program (5.1 to 5.4) are very similar to those described under the findings for the BSc program.

Based on the self-evaluation and accompanying documents and the onsite visit the EEC concludes that the MSc program is compliant to the standards described under 5.1, 5.2. and 5.4, and partly compliant to the standards described under 5.3 (better balance administrative/technical/academic teaching staff).

#### Findings for PhD in Agricultural Sciences, Biotechnology and Food Science

The PhD candidates have access to well-equipped laboratories, library, and IT infrastructure. The research topics are focused on laboratory studies, but recently the department gained a university farm which allows for field experiments under agricultural field conditions. This is a major improvement also for the PhD program as it allows the PhD candidates to translate their knowledge to practical, real life situations.

PhD student support in terms of mentoring and training towards the delivery of an academic dissertation is well in order. Student support related to career perspectives may be improved.

The teaching and learning resources for the PhD program are for the rest very similar to those available to the BSc and MSc program described above. Hence, the findings of the EEC related to the teaching and learning resources of the PhD study program (Sub-areas 5.1 to 5.4) are very similar to those described under the Findings for the BSc program.



Based on the self-evaluation and accompanying documents and the onsite visit the EEC concludes that the PhD program is compliant to the standards described under 5.1, 5.2. and 5.4, and partly compliant to the standards described under 5.3 (better balance administrative/technical/ academic teaching staff).

## <u>Strengths</u>

### Strengths for BSc in Agricultural Sciences, Biotechnology and Food Science

Teaching rooms and labs are at high level and are well-equipped. Library and IT services provide a good level of support to the study program.

### Strengths for MSc in Agricultural Biotechnology

Same as for the BSc program: teaching rooms and labs are at high level and are well-equipped. Library and IT services provide a good level of support to the study program.

#### Strengths for PhD in Agricultural Sciences, Biotechnology and Food Science

The university farm is an important new asset which allows the laboratory-oriented studies of the PhD candidates to be expanded to real-life agricultural settings. Considering the career perspective of the average PhD student, this will likely turn out to be highly valuable for the societal relevance of the performed research and for the future employability of the PhD candidates.

## Areas of improvement and recommendations

<u>Areas of improvement and recommendations for BSc in Agricultural Sciences, Biotechnology & Food Science</u> The teaching lab facilities are largely the same as the research lab facilities. This can have severe limitations in the number of students that can be taught at the same time and it hampers the research at times that the lab facilities are occupied for teaching purposes. General teaching lab facilities (e.g. shared with other departments) would help to relieve the pressure on lab space and time.

The study program would greatly benefit from the availability of technical support staff, e.g. for the preparation of practicals, operation and maintenance of equipment, etc. It is strongly adviced to hire technical staff for these purposes, which allows the academic teaching staff to focus on teaching, research and acquisition of research fund.

Administrative human resources could be more effectively positioned within the department to specifically support the teaching staff and to take over parts of the administrative workload. In this way, human teaching and learning resources embodied by the teaching staff will be more effectively and efficiently be allocated to the benefit of the students.

<u>Areas of improvement and recommendations for MSc in Agricultural Biotechnology</u> The recommendations for the BSc program also apply to the MSc program.

## Areas of improvement and recommendations for PhD in Agricultural Sciences, Biotechnology & Food Science

The fact that the PhD candidates have to share their lab facilities and space with the students in BSc and MSc courses is not ideal. Also the fact that the buildings with the laboratories and the offices are separate is not ideal. This hampers natural interactions between teachers/supervisors and the PhD candidates.

In order to perform research at a competitive level, technical support staff responsible for optimal and effective use of expensive high-level scientific equipment is essential. It allows the PhD candidates to make optimal use of the technical resources of the department. The same holds true for the management and maintenance



of the university farm. At the moment, such human resources are not available. The EEC highly recommends the university to take action on this point as it will greatly benefit both research and teaching.

The PhD candidates mentioned that they are often not well aware of their career perspectives. Since positions in academia are scarce, career expectation management and alignment with needs from the field are important. The EEC recommends a more active role of the University's Career Services department in this respect, e.g. by organizing networking opportunities between PhD candidates and future employers.

		Non-compliant/		
Sub-area		Partially Compliant/Compliant		
		BSc in Agricultural	MScin	PhD in Agricultural
		Sciences,		Sciences,
		Biotechnology &	Agricultural	Biotechnology &
		Food Science	Biotechnology	Food Science
5.1	Teaching and Learning resources	Compliant	Compliant	Compliant
5.2	Physical resources	Compliant	Compliant	Compliant
5.3	Human support resources	Partially compliant	Partially compliant	Partially compliant
5.4	Student support	Compliant	Compliant	Compliant



## 6. Additional for doctoral programs (ALL ESG)

#### Sub-areas

- 6.1. Selection criteria and requirements
- 6.2. Proposal and dissertation
- 6.3. Supervision and committees

### 6.1 Selection criteria and requirements

Standards

- Specific criteria that the potential students need to meet for admission in the program, as well as how the selection procedures are made, are defined:
- The following requirements of the doctoral degree program are analysed and published:
  - the stages of completion and the minimum and maximum time of completing the program
  - the examinations
  - the procedures for supporting and accepting the student's proposal
  - the criteria for obtaining the Ph.D. degree

## 6.2 Proposal and dissertation

<u>Standards</u>

- Specific and clear guidelines for the writing of the proposal and the dissertation are set.
- There is a plagiarism check system. Information is provided on the detection of plagiarism and the consequences in case of such misconduct.
- The process of submitting the dissertation to the university library is set.

## 6.3 Supervision and committees

### Standards

- The composition, the procedure and the criteria for the formation of the advisory committee (to whom the doctoral student submits the research proposal) are determined.
- The composition, the procedure and the criteria for the formation of the examining committee (to whom the doctoral student defends his/her dissertation), are determined.
- The duties of the supervisor-chairperson and the other members of the advisory committee towards the student are determined and include:
  - o regular meetings
  - o reports per semester and feedback from supervisors
  - o support for writing research papers
  - o participation in conferences
- The number of doctoral students that each chairperson supervises at the same time are determined.



## <u>Findings</u>

Specific criteria that the potential students need to meet for admission in the programme are clearly defined and explained in the document on "Rules on PhD students transfer to one of CUT's PhD programme" (Annex 6 to the SER), as well as how the selection procedures are made. Confirmation has been provided by the Department's Power Point Presentation.

Clear regulations concerning the points listed in Standard 2 can be found in Annex 2 PhD CUT regulations as part of the SER.

- the stages of completion: points 1,2,3,4 of Annex 2
- the minimum and maximum time of completing the programme: not precisely, but there are regulations on "Automatic termination of PhD-student attendance" in Annex 2
- the examinations: points 5,6,7,14
- the procedures for supporting and accepting the student's proposal: "Rules on PhD students transfer to one of CUT's PhD programme" (Annex 6 to the SER).
- $\circ$  the criteria for obtaining the Ph.D. degree: point 17

Regulations concerning the points mentioned in 6.2/Standard 1 can partially be found in Annex 2 PhD CUT regulations as part of the SER and in Quality Assurance PhD (Annex 12).

- There are quite detailed regulations on Quality Assurance PhD (Annex 12). However, it doesn't reflect on plagiarism and the consequences. Since this topic hasn't been stressed in the on site-discussions it remains to be an open question which has to be clarified.
- Regulations concerning the process of submitting the dissertation to the university library this point can
  partially be found in Annex 2 "PhD CUT regulations" as part of the SER and in Quality Assurance PhD
  (Annex 12).

Regulations concerning on the composition, the procedure and the criteria for the formation of the advisory committee (to whom the doctoral student submits the research proposal) can be found in Annex 2 "PhD CUT regulations" as part of the SER (points 4,8-15) and partially in Quality Assurance PhD (Annex 12).

Regulations concerning the duties of the supervisor-chairperson and the other members of the advisory committee towards the student can partially be found in Annex 2 "PhD CUT regulations" as part of the SER (point 4 and in Quality Assurance PhD (Annex 12). In the Department's Power Point Presentation it is mentioned concerning Quality Assurance that only a limited number of candidates is accepted and Annual Progress Reports are compulsory for each candidate.

An exact number of doctoral students that each chairperson supervises at the same time has not been found in the documents provided. However, it can be assumed from the reports and discussions during the onsite visit that the potential of supervision capacities has not absorbed yet. The exact number should be clarified. The numbers of PhD-candidates enrolled totals to max. 20 since 2015. The number of Faculty members involved in the PhD-program is 13.

#### **Strengths**

Admission criteria for PhD-candidates are available and suitable.

The number of PhD-candidates is always subject to absolute limits.

The regulations for PhD promotion and supervision are complete.

A good relation of number of PhD-candidates and Faculty members for supervision has been observed.



#### Areas of improvement and recommendations

More teaching in English language should be offered, particularly at the PhDlevel, e.g. to attract more foreign students.

The number of international students should be increased, particularly at the PhD-level.

Procedures and devices for Plagiarism-check should be implemented and applied on a regular basis.

Sub-areas		Non-compliant/ Partially Compliant/Compliant	
6.1	Selection criteria and requirements	Compliant	
6.2	Proposal and dissertation	Compliant	
6.3	Supervision and committees	Compliant	



## C. Conclusions and final remarks

Summarizing the above indicated evaluation results on a single standard basis it can be stated that the Study Programs under review should be accredited without major doubts at all levels (BSc, MSc, and PhD).

The Department of Agricultural Sciences, Biotechnology & Food Science organizes a high-level, wellbalanced, state-of-the-art curriculum in Agricultural Sciences, Biotechnology and Food Science. As the only broad university-level curriculum on Agricultural Sciences and Agri-Food in Cyprus, it serves an important national purpose. The level of education meets the high international standards, which is reflected by the observation that graduated MSc students have no problems pursuing PhD studies in top research institutes and universities abroad. Also the PhD program can meet with international standards, which is reflected by the fact that candidates graduated in the PhD program successfully obtain post-doctoral positions in top research institutes abroad.

However, there is potential for improvement. The most important recommendations are mentioned below:

- 1. Concerning the teaching contents of the study programs, there could be a stronger emphasis on Bioinformatics, Agricultural Economics, Agricultural Engineering, and Digital Agriculture.
- 2. Teaching personnel and PhD students could be offered the possibility to improve their skills and knowledge in higher education. A central university system for obtaining higher education teaching qualifications is recommended. This would both lift teaching skills of academic teachers and could provide a system acknowledging the equal value of teaching over research.
- 3. Students could be encouraged to take more responsibility in their learning and teaching starting from BSc level up to PhD level. This could include student tutors, student peers, and learning activities organized by students.
- 4. A system for PhD students to offer the possibility to participate in at least one scientific conference per year and short research visits abroad. If possible, perhaps also a scholarship program for PhD students could be established to enable full time studies.
- 5. Consider offering activities and teaching contents in the English language, particularly at the MSc and PhD level. This would provide potential to attract a larger share of students from international origin.
- 6. The administrative workload of the academic teaching staff should be relieved. Many administrative activities could be allocated to designated administrative support staff, which should be housed in the physical vicinity of the teaching staff for efficient and effective interactions. More time for teaching and research would immediately have a positive impact on these core businesses of the university.
- 7. Revisit the complexity of the rather bureaucratic procedures within the university to reach a better balance between quality assurance and workload.
- 8. Considering that maintaining the high quality of study program relies on the motivation and dedication of the academic teaching staff, the EEC recommends to appoint more permanent staff at the Department, academic staff and, importantly technical staff to support the high level scientific infrastructure (e.g. equipment and experimental university farms).
- 9. Develop awareness of the career perspective of graduated students (especially PhD students). Besides generic networking skill courses, dedicated courses/events focused on the specific Agri-food area, in concerted action with stakeholders from the field could be organized by the Career Services department of the university. Regular monitoring of the career path of alumni will also provide important information for current and future students about their career perspective.
- 10. For the PhD program, fund raising for applied research (in collaboration with private sector companies) could be expanded. This would also result in a better alignment with the field of Agri-food businesses where the graduates may find employability in the future.



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