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External Evaluation Report (Departmental)

- **Higher Education Institution:**
University of Cyprus
 - **Town:** Nicosia
 - **School/Faculty:** Pure and Applied Sciences
 - **Department:** Biological Sciences
 - **Programme(s) of study under evaluation**
Name (Duration, ECTS, Cycle)
-
- **Department's Status:** Currently Operating

The present document has been prepared within the framework of the authority and competencies of the Cyprus Agency of Quality Assurance and Accreditation in Higher Education, according to the provisions of the “Quality Assurance and Accreditation of Higher Education and the Establishment and Operation of an Agency on Related Matters Laws of 2015 to 2019” [N. 136 (I)/2015 to N. 35(I)/2019].

A. Introduction

The external evaluation of the Dept. of Biological Sciences has been conducted online via Zoom due to the COVID19 pandemic. The meeting started with a brief introduction of the members of the External Evaluation Committee (EEC). Subsequently, the Vice Rector of Academic Affairs, Prof. Irene-Anna Diakidoy, gave a short presentation of the University of Cyprus, followed by a presentation of the Head of the Dept. of Biological Sciences, Assoc.Prof. Pantelis Georgiades, providing an overview on the Department structure, the BSc, MSc and PhD curricula and on the research activities of the individual working groups as well as the available research infrastructure and facilities. Subsequently, the EEC discussed with the members of the Internal Evaluation Committee the internal organization and the availability of human and financial resources of the Department. Following this, the EEC discussed with the scientific staff of the Department research directions, recruitment of additional scientific personnel and teaching obligations. After a short break, the next sessions included a meeting with the students and the administrative personnel. The virtual visit was then concluded with a meeting with the Internal Evaluation Committee where open questions related to the visit were clarified.

B. External Evaluation Committee (EEC)

<i>Name</i>	<i>Position</i>	<i>University</i>
Gerhard J. Herndl	Professor	University of Vienna
Frances M. Brodsky	Professor	University College London
Luc Lens	Professor	Ghent University
Anastasia Antoniou	Student	Cyprus University of Technology
Name	Position	University
Name	Position	University

1. Department's academic profile and orientation

(ESG 1.1, 1.2, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9)

Sub-areas

- 1.1 Mission and strategic planning
- 1.2 Connecting with society
- 1.3 Development processes

Mark from 1 to 5 the degree of compliance for each quality indicator/criterion

- 1 or 2: *Non-compliant*
- 3: *Partially compliant*
- 4 or 5: *Compliant*

Quality indicators/criteria		
1. Department's academic profile and orientation		
1.1 Mission and strategic planning		1 - 5
1.1.1	The Department has formally adopted a mission statement, which is available to the public and easily accessible.	3
1.1.2	The Department has developed its strategic planning aiming at fulfilling its mission.	2
1.1.3	The Department's strategic planning includes short, medium-term and long-term goals and objectives, which are periodically revised and adapted.	2
1.1.4	The programmes of study offered by the Department reflect its academic profile and are aligned with the European and international practice.	4
1.1.5	The academic community is involved in shaping and monitoring the implementation of the Department's development strategies.	4
1.1.6	Stakeholders such as academics, students, graduates and other professional and scientific associations participate in the Department's development strategy.	5
1.1.7	The mechanism for collecting and analysing data and indicators needed to effectively design the Department's academic development is adequate and effective.	1

We were favorably impressed by the breadth and accomplishments of the department. We recognize that the department would benefit by a clear mission statement and strategic planning to appropriately expand into and take advantage of the new building. We applaud the department for their awareness of this need. In their future strategic

planning we recommend consideration of the following: 1) building on current strengths; 2) promoting sharing of intellectual resources through strategic hiring (eg computational biology); 3) teaching needs; 4) funding opportunities. New hiring might be achieved by joint appointments with other departments, which would also promote interdisciplinarity. The department should consider how to support (or expand) both streams that are currently strong and in which they offer MSc and PhD programs. While appreciating the need to include underrepresented areas such as plant science and structural biology, it would be advisable to not become too dilute.

1. Department's academic profile and orientation

1.2 Connecting with society

1 - 5

1.2.1	The Department has effective mechanisms to assess the needs and demands of society and takes them into account in its various activities.	4
1.2.2	The Department provides sufficient information to the public about its activities and offered programmes of study.	3
1.2.3	The Department ensures that its operation and activities have a positive impact on society.	N/A
1.2.4	The Department has an effective communication mechanism with its graduates.	3

The department has a good sense of their role in offering basic biology to Cyprus' higher education (vs. medically-oriented biology in other institutions). Regarding public contribution, staff are playing a role in the government's Covid management. The department has included consideration of public engagement in training undergraduates and this is encouraged. We further encourage more interaction with department alumni as administrative capacity permits.

1. Department's academic profile and orientation

1.3 Development processes

1 - 5

1.3.1	Effective procedures and measures are in place to attract and select teaching staff to ensure that they possess the formal and substantive skills to teach, carry out research and effectively carry out their work.	3
1.3.2	Planning teaching staff recruitment and their professional development is in line with the Department's academic development plan.	2
1.3.3	The Department applies an effective strategy of attracting high-level students from Cyprus and abroad.	3
1.3.4	The funding processes for the operation of the Department and the continuous improvement of the quality of its programmes of study are adequate and transparent.	3

The department has a vision for increasing international students but this is hampered by the history of a language requirement. The situation could improve as more courses are taught in English.

Based on information provided: 80% Cypriot students; 20% international from Africa, other European countries

Findings

The department has two scientific streams: 1) molecular, cellular & developmental biology and 2) ecology, evolution & biodiversity. These are well-supported by staff expertise. Their teaching covers all bioscience with advanced degree courses in each stream. Topics not represented by staff research include practical structural biology, plant science and marine biology/ecology. Some are nonetheless taught at the undergraduate level.

Strengths

The research output and recognition are impressive for the resources available. The BSc. and MSc. curricula are well-designed with excellent opportunity for exposure to practical laboratory experience. There is active participation and communication between all stakeholders. The staff-student ratio is favorable for effective interactions and the training atmosphere is positive.

Areas of improvement and recommendations

Development of a strategic plan as soon as possible is recommended with the considerations noted above. Consider how to expand offerings in areas where further expertise might be limiting through local collaboration. For example, collaboration with a nationwide effort in marine biology or agricultural research could be an option.

Please select what is appropriate for each of the following sub-areas:

Sub-area	<i>Non-compliant / Partially Compliant / Compliant</i>
1.1 Mission and strategic planning	Non Compliant
1.2 Connecting with society	Partially Compliant
1.3 Development processes	Partially Compliant

2. Quality Assurance

(ESG 1.1, 1.2, 1.3, 1.4, 1.6, 1.7, 1.8)

Sub-areas

- 2.1 System and quality assurance strategy
- 2.2 Quality assurance for the programmes of study

Mark from 1 to 5 the degree of compliance for each quality indicator/criterion

Quality indicators/criteria		
2. Quality Assurance		
2.1 System and quality assurance strategy		1 - 5
2.1.1	The Department has a policy for quality assurance that is made public and forms part of the Institution's strategic management.	5
2.1.2	Internal stakeholders develop and implement a policy for quality assurance through appropriate structures and processes, while involving external stakeholders.	5
2.1.3	The Department's policy for quality assurance supports guarding against intolerance of any kind or discrimination against students or staff.	5
2.1.4	The quality assurance system adequately covers all the functions and sectors of the Department's activities:	
2.1.4.1	Teaching and learning	5
2.1.4.2	Research	5
2.1.4.3	The connection with society	5
2.1.4.4	Management and support services	5
2.1.5	The quality assurance system promotes a culture of quality.	5
No deficiencies noted.		

2. Quality Assurance		
2.2 Quality assurance for the programmes of study		1 - 5
2.2.1	The responsibility for decision-making and monitoring the implementation of the programmes of study offered by the Department lies with the teaching staff.	5
2.2.2	The system and criteria for assessing students' performance in the subjects of the programmes of studies offered by the Department are clear, sufficient and known to the students.	5
2.2.3	The quality control system refers to specific indicators and is effective.	5
2.2.4	The results from student assessments are used to improve the programmes of study.	5
2.2.5	The policy dealing with plagiarism committed by students as well as mechanisms for identifying and preventing it are effective.	5
2.2.6	The established procedures for examining students' objections/ disagreements on issues of student evaluation or academic ethics are effective.	5
2.2.7	The Department publishes information related to the programmes of study, credit units, learning outcomes, methodology, student admission criteria, completion of studies, facilities, number of teaching staff and the expertise of teaching staff.	5
2.2.8	The Department has a clear and consistent policy on the admission criteria for students in the various programmes of studies offered.	5
2.2.9	The Department flexibly uses a variety of pedagogical methods.	4
2.2.10	The Department systematically collects data in relation to the academic performance of students, implements procedures for evaluating such data and has a relevant policy in place.	5
2.2.11	The Department analyses and publishes graduate employment information.	4
2.2.12	The Department ensures adequate and appropriate learning resources in line with European and international standards and/or international practices, particularly:	
2.2.12.1	Building facilities	3
2.2.12.2	Library	5
2.2.12.3	Rooms for theoretical, practical and laboratory lessons	3
2.2.12.4	Technological infrastructure	5

	2.2.12.5	Academic support	5
2.2.13	There is a student welfare service that supports students in regard to academic, personal problems and difficulties.		5
2.2.14	The Department's mechanisms, processes and infrastructure consider the needs of a diverse student population such as mature, part-time, employed and international students as well as students with disabilities.		4
2.2.15	Mentoring of each student is provided and the number of students per each permanent teaching member is adequate.		5
2.2.16	The provision of quality doctoral studies is ensured through doctoral studies regulations, which are publicly available.		5
2.2.17	The number of doctoral students, under the supervision of a member of the teaching staff, enables continuous and effective feedback to the students and it complies with the European and international standards.		5
2.2.18	The Department has mechanisms and funds to support writing and attending conferences of doctoral candidates.		1
2.2.19	There is a clear policy on authorship and intellectual property.		N/A

A new building to house the department is in progress to provide adequate space and facilities. The score represents the intermediate situation. Resources to support conference travel for doctoral students were not evident. The department respects the need for mature students to work for supporting their studies. However, this leads to an awkward extension of the time needed to complete the doctoral degree.

Findings

It is evident that the department takes compliance with university regulations into account in the activities discussed. The department will move into a new building to be completed in 2023. The support for doctoral students is limited due to reduced tuition support. This leads to unusually long PhD training periods relative to many other European countries.

Strengths

The completion of a new building to house the department will strongly enhance the research and training situation. The library provides excellent support to the department.

Areas of improvement and recommendations

The situation regarding the length of the doctoral training and support needs to be addressed.

Please ✓ what is appropriate for each of the following sub-areas:

Sub-area	<i>Non-compliant / Partially Compliant / Compliant</i>
2.1 System and quality assurance strategy	Compliant

2.2 Quality assurance for the programmes of study

Partially Compliant

3. Administration

(ESG 1.1, 1.3, 1.6)

Mark from 1 to 5 the degree of compliance for each quality indicator/criterion

Quality indicators/criteria		1 - 5
3. Administration		1 - 5
3.1	The administrative structure is in line with the legislation and the Department's mission.	5
3.2	The members of the teaching and administrative staff and the students participate, at a satisfactory degree and on the basis of specified procedures, in the management of the Department.	5
3.3	The administrative staff adequately supports the operation of the Department.	3
3.4	Adequate allocation of competences and responsibilities is ensured so that in academic matters, decisions are made by academics and the Department's council competently exercises legal control over such decisions.	5
3.5	The Department applies effective procedures to ensure transparency in the decision-making process.	5
3.6	Statutory sessions of the Department are held and minutes are kept.	5
3.7	The Department's council operates systematically and autonomously and exercise the full powers provided for by the law and / or the constitution of the Department without the intervention or involvement of a body or person outside the law provisions.	5
3.8	The manner in which the Department's council operates and the procedures for disseminating and implementing their decisions are clearly formulated and implemented precisely and effectively.	5
3.9	The Department applies procedures for the prevention and disciplinary control of academic misconduct of students, teaching and administrative staff, including plagiarism.	5
3.10	The Department has appropriate procedures for dealing with students' complaints.	5

Justify the numerical scores provided for the quality indicators (criteria) by specifying (if any) the deficiencies.

The administrative staff seem very competent and motivated, however, over-worked.

Findings

The department has excellent administrative support but not sufficient. The same was observed for technical assistance.

Strengths

The current staff members are highly motivated and multi-tasking.

Areas of improvement and recommendations

The situation would be improved by an additional administrator to assist with student records and grant finances. Two technical staff to support research would improve training, research and funding opportunities; a staff member to look after general services, small equipment repair and a staff member to oversee training and usage of more sophisticated shared equipment. Promotion opportunities for existing administrative staff might be considered to avoid losing them.

Please select what is appropriate for the following assessment area:

Assessment area	<i>Non-compliant / Partially Compliant / Compliant</i>
3. Administration	Partially Compliant

4. Learning and Teaching (ESG 1.2, 1.3, 1.4, 1.9)

Sub-areas

- 4.1 Planning the programmes of study
- 4.2 Organisation of teaching

Mark from 1 to 5 the degree of compliance for each quality indicator/criterion

Quality indicators/criteria		
4. Learning and Teaching		
4.1 Planning the programmes of study		1 - 5
4.1.1	The Department provides an effective system for designing, approving, monitoring and periodically reviewing the programmes of study.	5
4.1.2	Students and other stakeholders, including employers, are actively involved on the programmes' review and development.	5
4.1.3	The content of the programmes of study, the assignments and the final exams correspond to the appropriate level as indicated by the European Qualifications Framework (EQF).	5
4.1.4	The programmes of study are in compliance with the existing legislation and meet the professional qualifications requirements in the professional courses, where applicable.	5
4.1.5	The Department ensures that its programmes of study integrate effectively theory and practice.	4
The comprehensive exam has been criticized by some students as this exam prolongs the duration of PhD training.		
4. Learning and Teaching		
4.2 Organisation of teaching		1 - 5
4.2.1	The Department establishes student admission criteria for each programme, which are adhered to consistently.	4
4.2.2	Recognition of prior studies and credit transfer is regulated by procedures and regulations that are in line with European standards and/or international practices.	5

4.2.3	The number of students in the teaching rooms is suitable for theoretical, practical and laboratory lessons.	3
4.2.4	The teaching staff of the Department has regular and effective communication with their students, promoting mutual respect within the learner-teacher relationship.	5
4.2.5	Student-centred learning and teaching plays an important role in stimulating students' motivation, self-reflection and engagement in the learning process.	5
4.2.6	The teaching staff of the Department provides timely and effective feedback to their students.	5
4.2.7	The criteria and the method of assessment as well as the criteria for marking are published in advance.	5
4.2.8	The assessment allows students to demonstrate the extent to which the intended learning outcomes have been achieved.	5

The lower scores reflect an issue raised by the students about the comprehensive exam and teaching lab shortage that will be addressed by the new building.

Findings

The programs are generally well-received by the students but some constructive suggestions were made about specialization that the external evaluation panel would like to highlight.

Strengths

A major strength is the engagement of the academic staff in teaching and in delivering laboratory experiences at all levels.

Areas of improvement and recommendations

There are challenges posed by the diversity of students admitted to the programs. Some students are overqualified and some under-qualified. Balancing training opportunities to fill in gaps such as statistics and basic chemistry might need to be addressed.

The advanced undergraduates were interested in offerings that allow more specialization during their degree. It is noted by the external evaluation panel that this may be enhanced by increasing the number of faculty and scope when the new building is completed, which, as a consequence, might also attract more students.

A second consideration is the role of the written requirements in PhD training. Feedback from the students was that their training is excessively long due to their financial burden and the need to work, so that the time spent on preparing a comprehensive exam on a topic unrelated to their research is a burden. They welcomed the opportunity to write sooner about their planned degree project and to update every year. The panel was supportive of this suggestion or reduction of the time to degree, which would require financial support from the university.

Please select what is appropriate for each of the following sub-areas:

Sub-area	<i>Non-compliant / Partially Compliant / Compliant</i>
4.1 Planning the programmes of study	Compliant
4.2 Organisation of teaching	Partially Compliant

5. Teaching Staff (ESG 1.5)

Mark from 1 to 5 the degree of compliance for each quality indicator/criterion

Quality indicators/criteria		
5. Teaching Staff		1 - 5
5.1	The number of teaching staff - full-time and exclusive work - and the subject area of the staff sufficiently support the programmes of study.	4
5.2	The teaching staff of the Department has the relevant formal and substantive qualifications for teaching the individual subjects as described in the relevant legislation.	5
5.3	The visiting Professors' subject areas adequately support the Department's programmes of study.	5
5.4	The special teaching staff and special scientists have the required qualifications, sufficient professional experience and expertise to teach a limited number of programmes of study.	5
5.5	The ratio of special teaching staff to the total number of teaching staff is satisfactory.	N/A
5.6	The ratio of the number of subjects of the programme of study taught by teaching staff working fulltime and exclusively to the number of subjects taught by part-time teaching staff ensures the quality of the programme of study.	N/A
5.7	The ratio of the number of students to the total number of teaching staff is sufficient to support and ensure the quality of the programme of study.	5
5.8	Feedback processes for teaching staff in regard to the evaluation of their teaching work, by the students, are satisfactory.	5
Course offerings are limited by student numbers, leading to limitations in fulfilling the program of study, which may improve as the department expands. N/A reflects lack of information provided.		

Findings

The teaching load is heavy but not atypical for other university institutions.

Strengths

Engagement of the academic staff. The high ratio of staff to students provides a good training experience.

Areas of improvement and recommendations

Course offerings are limited by student numbers, leading to limitations in fulfilling the program of study, which may improve if the department expands.

Please ✓ what is appropriate for the following assessment area:

Assessment area	<i>Non-compliant / Partially Compliant / Compliant</i>
5. Teaching Staff	Compliant

6. Research

(ESG 1.1, 1.3, 1.5, 1.6)

Mark from 1 to 5 the degree of compliance for each quality indicator/criterion

Quality indicators/criteria		
6. Research		1 - 5
6.1	The Department has a research policy formulated in line with its mission.	3
6.2	The Department consistently applies internal regulations and procedures of research activity, which promote the set out research policy and ensure compliance with the regulations of research projects financing programmes.	5
6.3	The Department provides adequate facilities and equipment to cover the staff and students' research activities.	3
6.4	The Department has the appropriate mechanisms for the development of students' research skills.	5
6.5	The results of the teaching staff research activity are published to a satisfactory extent in international journals which work with critics, international conferences, conference proceedings, publications, etc. The Department also uses an open access policy for publications, which is consistent with the corresponding national and European policy.	5
6.6	The Department ensures that research results are integrated into teaching and, to the extent applicable, promotes and implements a policy of transferring know-how to society and the production sector.	5
6.7	The Department provides mechanisms which ensure compliance with international rules of research ethics, both in relation to research activity and the rights of researchers.	5
6.8	The external, non-governmental, funding of research activities of teaching staff is similar to other Departments in Cyprus and abroad.	3
6.9	The policy, indirect or direct of internal funding of the research activities of the teaching staff is satisfactory, based on European and international practices.	5
The research output reflects considerable value for money. Research output and funding are hindered by the economic situation.		

Findings

The research output is of good quality, especially in light of limited resources. The output could benefit from additional shared facilities and support. Research communication between staff members will benefit from being housed together in a new building. The need for strategic planning for future research directions was recognized, as well as the importance of reaching out to other departments at the university.

Strengths

Efficiency of resource usage and sharing expertise within the department.

Areas of improvement and recommendations

Interdisciplinary interactions with other departments could be strengthened and might be supported by encouragement from the university (e.g. consideration of joint appointments with other departments, possibly housed in the new building).

Strategic planning for research directions should be a top priority and include consideration of evolving areas of international funding, as well as societal relevance of fundamental science.

To enhance the impact of equipment, the panel encourages increased technical support from the university to enable easier sharing. As mentioned in Section 3 of this evaluation, two technical staff to support research would improve training, research and funding opportunities; a staff member to look after general services, small equipment repair and a staff member to oversee training and usage of more sophisticated shared equipment.

Please ✓ what is appropriate for the following assessment area:

Assessment area	<i>Non-compliant / Partially Compliant / Compliant</i>
6. Research	Compliant

7. Resources (ESG 1.6)

Mark from 1 to 5 the degree of compliance for each quality indicator/criterion

Quality indicators/criteria		
7. Resources		1 - 5
7.1	The Department has sufficient financial resources to support its functions, managed by the Institutional and Departmental bodies.	3
7.2	The Department follows sound and efficient management of the available financial resources in order to develop academically and research wise.	5
7.3	The Department's profits and donations are used for its development and for the benefit of the university community.	4
7.4	The Department's budget is appropriate for its mission and adequate for the implementation of strategic planning.	3
7.5	The Department carries out an assessment of the risks and sustainability of the programmes of study and adequately provides feedback on their operation.	5
7.6	The Department's external audit and the transparent management of its finances are ensured.	5
7.7	The fitness-for-purpose of support facilities and services is periodically reviewed.	5
Issues with support from the university were discussed and highlighted below.		

Findings

Financial resources for laboratory consumables are provided by the university and this is appreciated and essential to research operations. Recent changes in support to PhD students are considered a challenge that is affecting the quality of training. Limitations on administrative and technical support are mentioned above.

Strengths

Support for consumables is important to maintain and helps the quality of output. The department attracts PhD students and contributes income to the university.

Areas of improvement and recommendations

The limitations on distribution of income received from PhD training is threatening the efficacy of this training program to the extent that the time to degree completion is lengthened by the need for students without bursaries to work part-time. Some valuation of the departmental support in proportion to resources contributed to the university might be considered to improve this situation.

Suggestions for increased personnel resources (technical and administrative) have been made in the previous sections.

Please ✓ what is appropriate for the following assessment area:

Assessment area	<i>Non-compliant / Partially Compliant / Compliant</i>
7. Resources	Partially Compliant

C. Conclusions and final remarks

We thank the scientific and administrative staff as well as the students for the frank discussion the external evaluation committee had. Based on these discussions the EEC concludes the following: The staff is highly motivated and there is generally a good interaction and communication with the undergraduate and graduate students. The research output is high considering the available funds.

The EEC recommends to

- 1) Increase the number of technical assistants to a) make better use of the existing more sophisticated equipment by training students on these instruments, b) to ensure proper maintenance of the existing equipment and c) to support laboratory work of scientific staff and students.
- 2) Evaluate possibilities to increase the financial support of the university to the department.
- 3) Develop a strategic recruitment plan for additional scientific personnel to further strengthen the research and teaching of the department, specifically strengthening the existing two branches of research and teaching, i.e., molecular, cellular & developmental biology and ecology, evolution & biodiversity. In these considerations also the targeted research areas within European and other international funding programs and the societal needs should be taken into account.
- 4) Promotion possibilities for administrative staff should be considered to avoid losing them to other areas.

D. Signatures of the EEC

<i>Name</i>	<i>Signature</i>
Gerhard J. Herndl	
Frances M. Brodsky	
Luc Lens	
Anastasia Antoniou	
FullName	
FullName	

Date: 30 January 2020

